

## CATERPILLAR EMD 3406B

## Component Diesel Engine

## ROYAL PURPLE MOTOR OIL 15W40 (10 GAL)

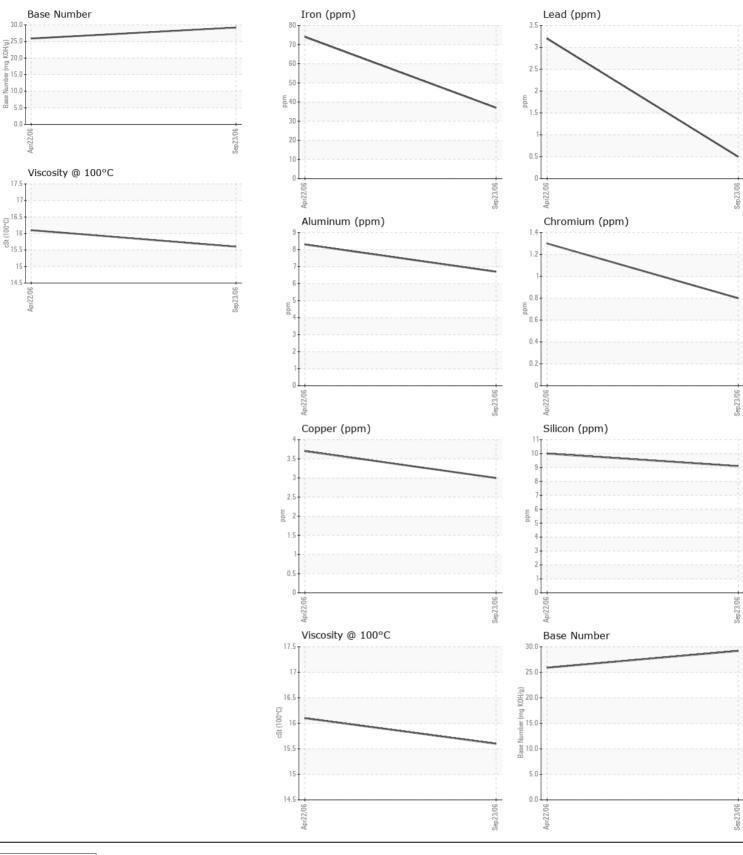
ROYAL PURPLE MOTOR OIL 15W40 (10 GA	\L)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		RP033554	RP034678	
	Sample Date		Client Info		23 Sep 2006	22 Apr 2006	
	Machine Age	hrs	Client Info		14639	0	
	Oil Age	hrs	Client Info		790	1466	
	Filter Age	hrs	Client Info		790	730	
	Oil Changed		Client Info		Not Changd	Not Changd	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m		37	74	
	Chromium	ppm	ASTM D5185m		<1	1	
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		<1	1	
	Titanium	ppm	ASTM D5185m		<1	<1	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m		7	8	
	Lead	ppm	ASTM D5185m		<1	3	
	Copper	ppm	ASTM D5185m		3	4	
	Tin	ppm	ASTM D5185m		0	0	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m		9	10	
	Potassium	ppm	ASTM D5185m		0	0	
There is no indication of any contamination in the component.	Fuel	lele	WC Method		<1.0	<1.0	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844		0.3	1.1	
	Nitration	Abs/cm	*ASTM D7624		0.14	0.23	
	Sulfation	Abs/.1mm	*ASTM D7415		0.22	0.53	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual		NEG	0.1%	
LUID CONDITION	Sodium	ppm	ASTM D5185m		3	6	
The condition of oil is suitable for further service.	Boron	ppm	ASTM D5185m		<1	3	
	Barium	ppm	ASTM D5185m		0	19	
	Molybdenum	ppm	ASTM D5185m		113	127	
	Manganese	ppm	ASTM D5185m		1	1	
	Magnesium	ppm	ASTM D5185m		2688	3323	
	Calcium	ppm	ASTM D5185m		5459	6152	
	Phosphorus	ppm	ASTM D5185m		918	1018	
	Zinc	ppm	ASTM D5185m		1312	1488	
	Oxidation	Abs/.1mm	*ASTM D7414		0.26	0.68	
	Base Number (BN)	mg KOH/g	ASTM D2896		29.2	25.9	
						1	

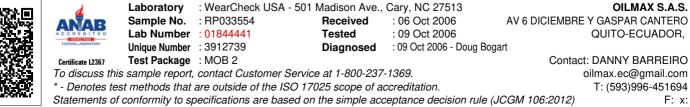
Visc @ 100°C cSt ASTM D445

15.6

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16.1





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