



PERFORMANCE
UNDER
PRESSURE

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CATERPILLAR EMD 3406
Component
Diesel Engine
Fluid
ROYAL PURPLE MOTOR OIL 15W40 (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RP034729	RP034558	RP034683
Sample Date		Client Info		02 Sep 2006	30 Jul 2006	02 Jun 2006
Machine Age	hrs	Client Info		6086	5250	0
Oil Age	hrs	Client Info		836	2148	760
Filter Age	hrs	Client Info		836	700	760
Oil Changed		Client Info		Not Chngd	Changed	Not Chngd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m		87	77	54
Chromium	ppm	ASTM D5185m		4	4	3
Nickel	ppm	ASTM D5185m		1	2	2
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m		10	8	8
Lead	ppm	ASTM D5185m		17	15	6
Copper	ppm	ASTM D5185m		38	42	27
Tin	ppm	ASTM D5185m		0	2	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

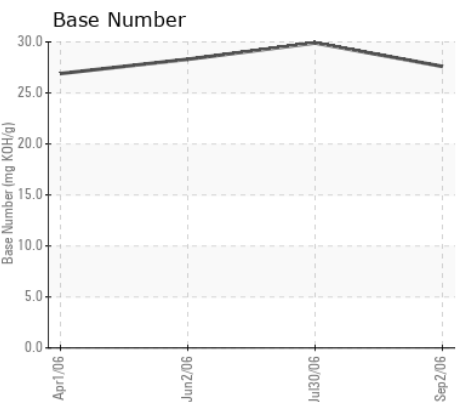
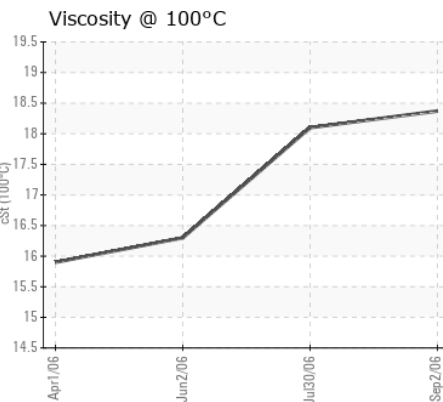
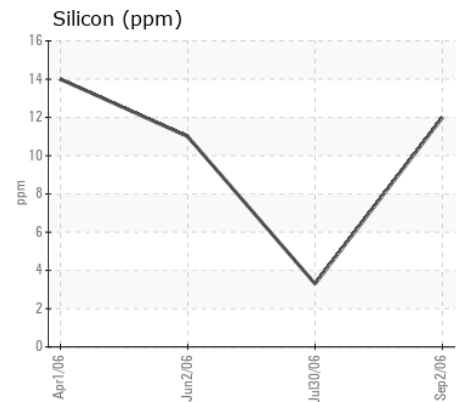
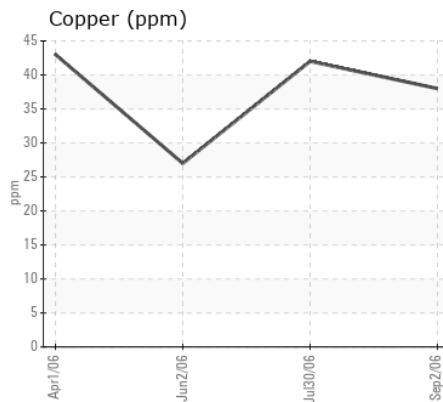
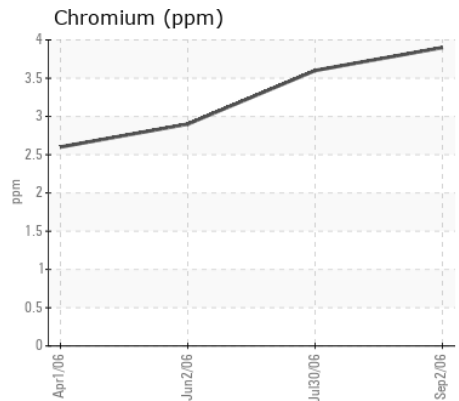
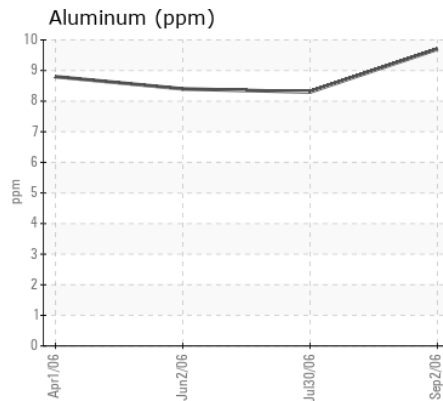
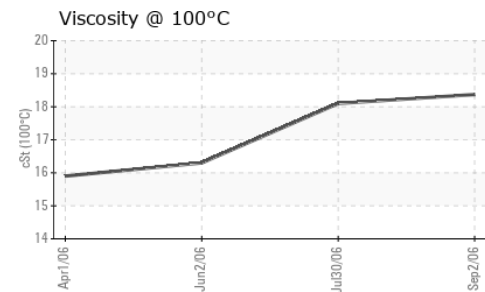
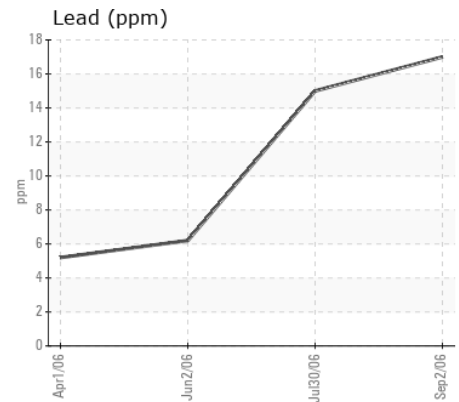
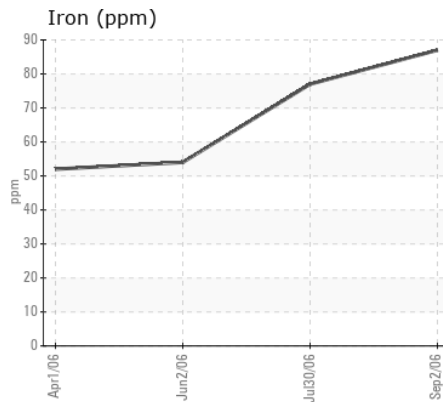
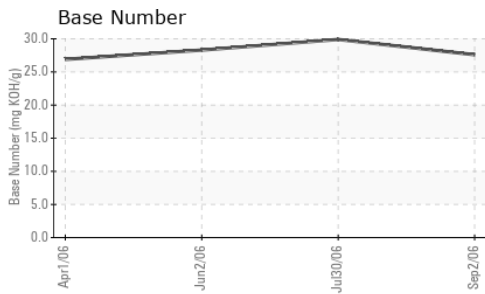
There is no indication of any contamination in the component.

Silicon	ppm	ASTM D5185m		12	3	11
Potassium	ppm	ASTM D5185m		0	<1	0
Fuel		WC Method		<1.0	<1.0	<1.0
Water		WC Method		NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.3	0.2	0.5
Nitration	Abs/cm	*ASTM D7624		0.15	0.11	0.26
Sulfation	Abs/.1mm	*ASTM D7415		0.23	0.16	0.54
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual		NEG	NEG	NEG

FLUID CONDITION

The condition of oil is suitable for further service.

Sodium	ppm	ASTM D5185m		5	5	3
Boron	ppm	ASTM D5185m		<1	3	1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		143	137	130
Manganese	ppm	ASTM D5185m		2	2	1
Magnesium	ppm	ASTM D5185m		3304	2889	3134
Calcium	ppm	ASTM D5185m		6583	6400	6357
Phosphorus	ppm	ASTM D5185m		995	939	1034
Zinc	ppm	ASTM D5185m		1617	1446	1571
Oxidation	Abs/.1mm	*ASTM D7414		0.20	0.15	0.73
Base Number (BN)	mg KOH/g	ASTM D2896		27.6	29.9	28.3
Visc @ 100°C	cSt	ASTM D445		18.37	18.1	16.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : RP034729

Lab Number : 01844447

Unique Number : 3912745

Test Package : MOB 2

Received : 06 Oct 2006

Tested : 09 Oct 2006

Diagnosed : 09 Oct 2006 - Doug Bogart

OILMAX S.A.S.

AV 6 DICIEMBRE Y GASPAR CANTERO

QUITO-ECUADOR,

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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)