



PERFORMANCE  
UNDER  
PRESSURE

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**CATERPILLAR EMD CAT 3412**

Component  
**Diesel Engine**

Fluid  
**{not provided} (20 GAL)**

**RECOMMENDATION**

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**WEAR**

All component wear rates are normal.

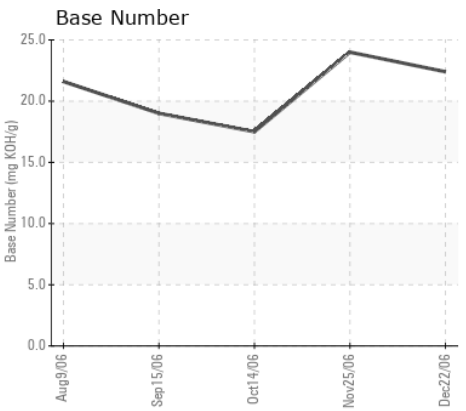
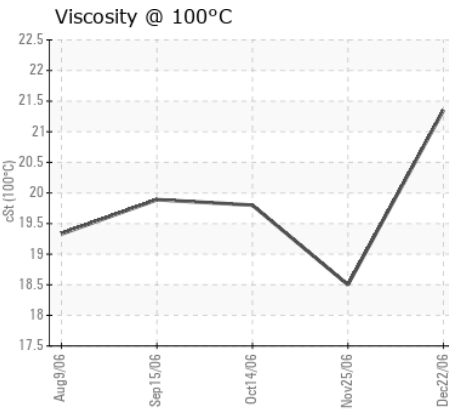
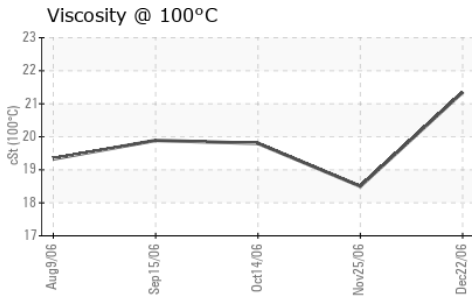
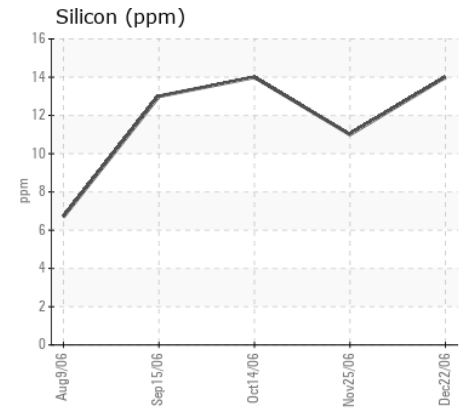
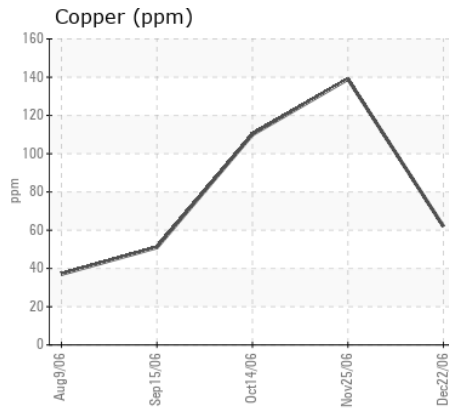
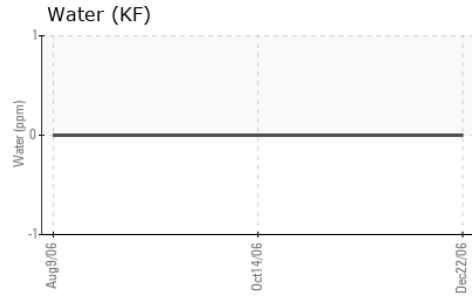
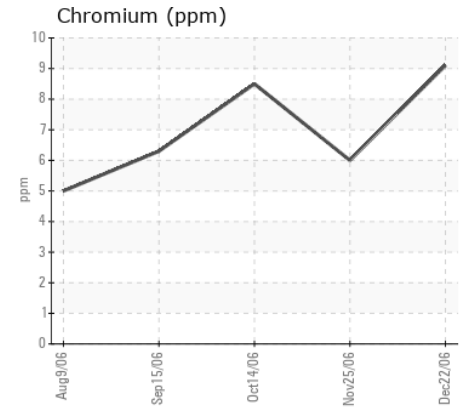
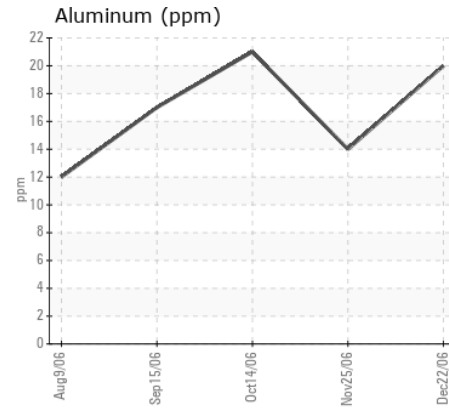
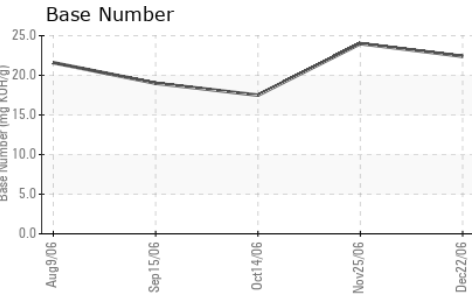
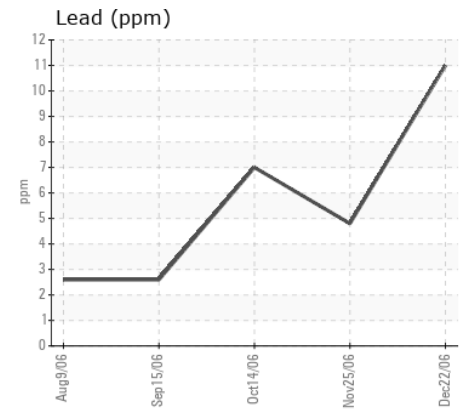
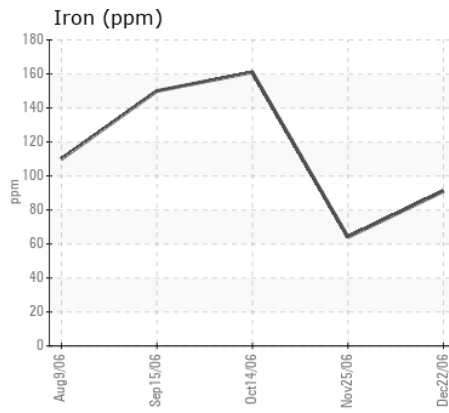
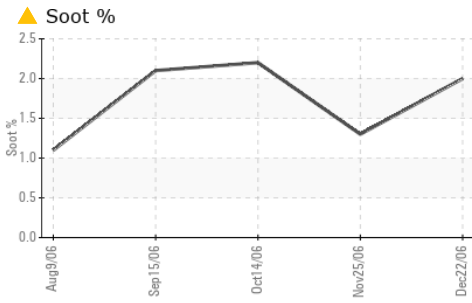
**CONTAMINATION**

There is an abnormal amount of solids and carbon present in the oil.

**FLUID CONDITION**

The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>RP033940</b>	RP034583	RP034566
Sample Date		Client Info		<b>22 Dec 2006</b>	25 Nov 2006	14 Oct 2006
Machine Age	hrs	Client Info		<b>4269</b>	3391	2607
Oil Age	hrs	Client Info		<b>1678</b>	800	2242
Filter Age	hrs	Client Info		<b>878</b>	800	620
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m		<b>91</b>	64	161
Chromium	ppm	ASTM D5185m		<b>9</b>	6	8
Nickel	ppm	ASTM D5185m		<b>1</b>	<1	1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m		<b>20</b>	14	21
Lead	ppm	ASTM D5185m		<b>11</b>	5	7
Copper	ppm	ASTM D5185m		<b>62</b>	139	110
Tin	ppm	ASTM D5185m		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silicon	ppm	ASTM D5185m		<b>14</b>	11	14
Potassium	ppm	ASTM D5185m		<b>0</b>	<1	0
Fuel		WC Method		<b>&lt;1.0</b>	<1.0	<1.0
Water	%	ASTM D6304		<b>NEG</b>	NEG	▲ 0.580
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>▲ 2</b>	1.3	▲ 2.2
Nitration	Abs/cm	*ASTM D7624		<b>19.</b>	0.75	0.43
Sulfation	Abs/.1mm	*ASTM D7415		<b>78.</b>	0.46	1.43
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual		<b>NEG</b>	NEG	▲ 0.5%
Sodium	ppm	ASTM D5185m		<b>7</b>	4	22
Boron	ppm	ASTM D5185m		<b>2</b>	1	5
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>182</b>	143	149
Manganese	ppm	ASTM D5185m		<b>2</b>	1	2
Magnesium	ppm	ASTM D5185m		<b>3952</b>	3871	3667
Calcium	ppm	ASTM D5185m		<b>7743</b>	7204	7244
Phosphorus	ppm	ASTM D5185m		<b>1158</b>	1036	1119
Zinc	ppm	ASTM D5185m		<b>1864</b>	1586	1792
Oxidation	Abs/.1mm	*ASTM D7414		<b>39.</b>	1.37	0.80
Base Number (BN)	mg KOH/g	ASTM D2896		<b>22.4</b>	24.0	17.5
Visc @ 100°C	cSt	ASTM D445		<b>21.35</b>	18.5	19.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP033940  
**Lab Number** : 01893470  
**Unique Number** : 3997142  
**Test Package** : MOB 2 ( Additional Tests: KF )

**Received** : 15 Jan 2007  
**Tested** : 16 Jan 2007  
**Diagnosed** :

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)

**OILMAX S.A.S.**

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