



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	MARGINAL

Machine Id
VOLVO 128904
Component
Front Diesel Engine
Fluid
SAE 15W40 (11 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KLMFA13353	KLMFA12054	KLMFA13438
Sample Date		Client Info		19 Apr 2014	13 Feb 2014	28 Dec 2013
Machine Age	mls	Client Info		443589	2642603	2613783
Oil Age	mls	Client Info		198605	159042	130222
Filter Age	mls	Client Info		198605	159042	130222
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				MARGINAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal for time on oil.

Iron	ppm	ASTM D5185m	>100	194	162	163
Chromium	ppm	ASTM D5185m	>20	4	4	4
Nickel	ppm	ASTM D5185m	>2	3	3	2
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>25	14	17	16
Lead	ppm	ASTM D5185m	>40	8	6	6
Copper	ppm	ASTM D5185m	>330	24	25	29
Tin	ppm	ASTM D5185m	>15	2	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

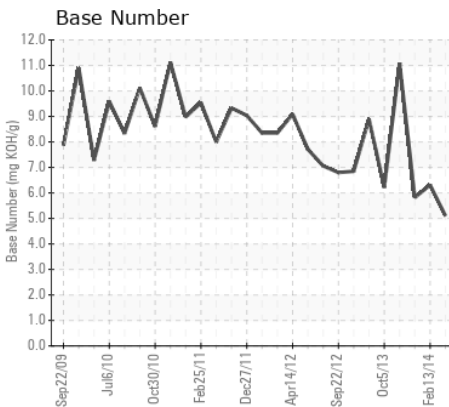
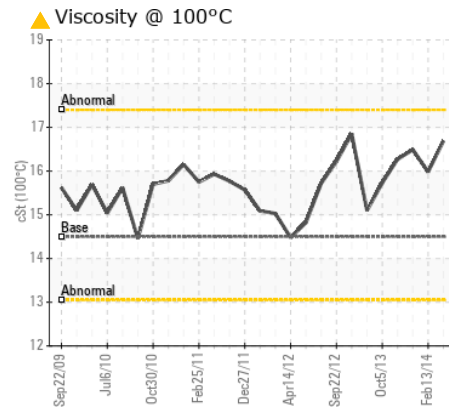
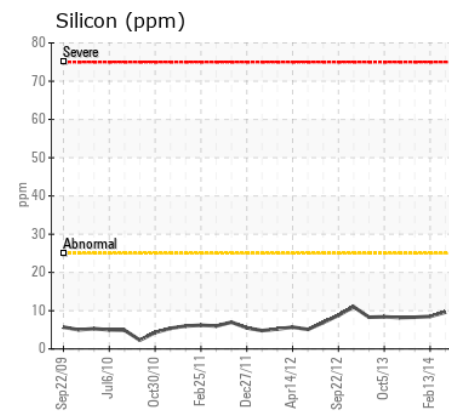
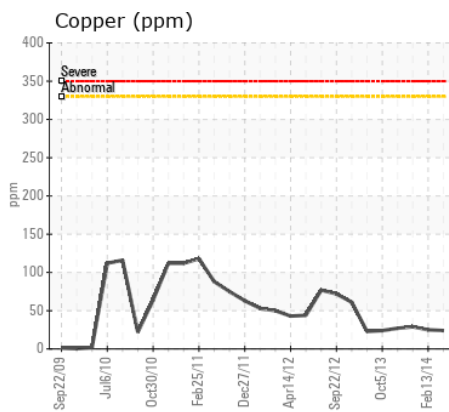
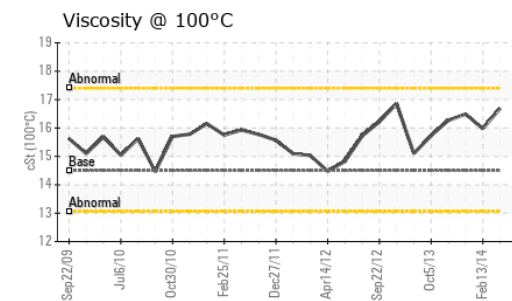
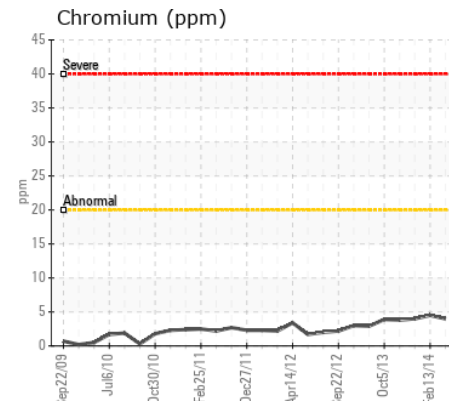
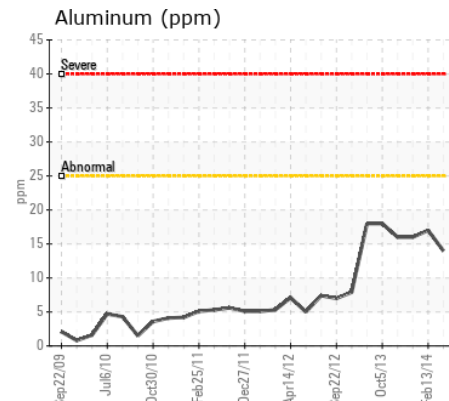
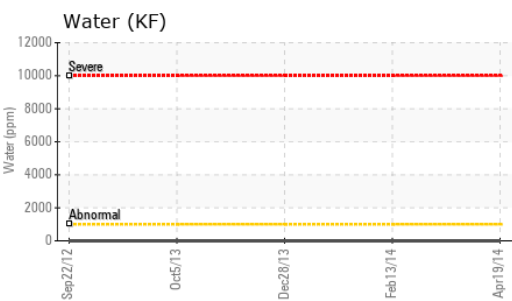
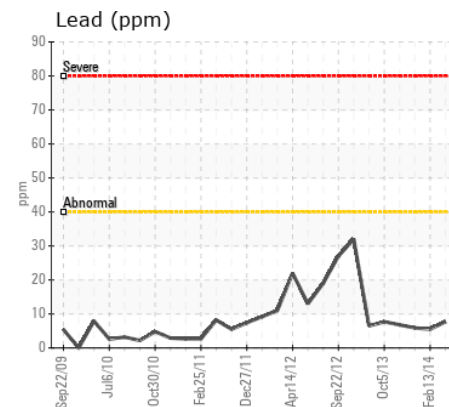
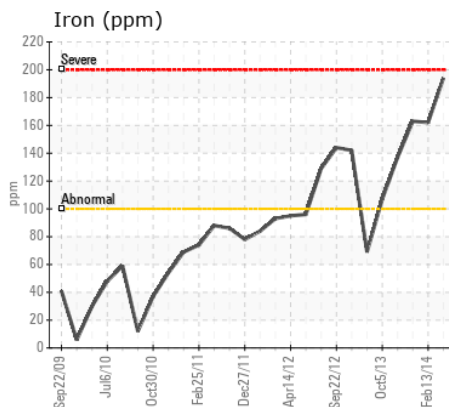
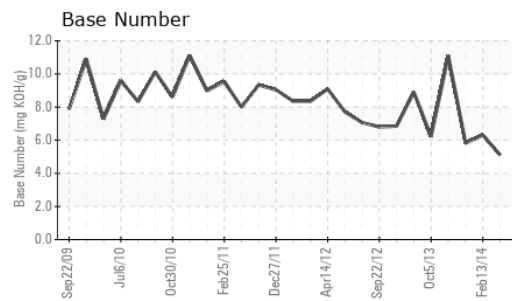
There is no indication of any contamination in the component.

Silicon	ppm	ASTM D5185m	>25	10	8	8
Potassium	ppm	ASTM D5185m	>20	<1	4	<1
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water	%	ASTM D6304	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	2.9	▲ 3.3	▲ 3.7
Nitration	Abs/cm	*ASTM D7624		9.	10.	11.
Sulfation	Abs/.1mm	*ASTM D7415		22.	28.	29.
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		8	8	7
Boron	ppm	ASTM D5185m		72	70	67
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		91	94	92
Manganese	ppm	ASTM D5185m		2	2	2
Magnesium	ppm	ASTM D5185m		394	368	367
Calcium	ppm	ASTM D5185m		1854	1745	1651
Phosphorus	ppm	ASTM D5185m		1071	1068	1086
Zinc	ppm	ASTM D5185m		1278	1276	1293
Sulfur	ppm	ASTM D5185m		2987	1166	1072
Oxidation	Abs/.1mm	*ASTM D7414		18.	20.	23.
Base Number (BN)	mg KOH/g	ASTM D2896		5.11	6.31	5.82
Visc @ 100°C	cSt	ASTM D445	14.5	▲ 16.69	15.98	16.49



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KLMFA13353 **Received** : 28 Apr 2014
Lab Number : 03493704 **Diagnosed** : 28 Apr 2014
Unique Number : 6601565 **Diagnostician** : Don Baldridge
Test Package : MOB 2 (Additional Tests: KF, PQ)

EDAN FARMS INC.
 13549 WOODWORTH RD.
 NEW SPRINGFIELD, OH
 US 44443
 Contact: ERIC SCHAEFER
 leslie.edan@zoominternet.net
 T: (330)549-5567
 F: (330)549-0255

Certificate L2367
 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)