



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		KLMFA12052	KLMFA13353	KLMFA12054
Sample Date		Client Info		31 May 2014	19 Apr 2014	13 Feb 2014
Machine Age	mls	Client Info		175845	443589	2642603
Oil Age	mls	Client Info		242088	198605	159042
Filter Age	mls	Client Info		242088	198605	159042
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				MARGINAL	MARGINAL	ABNORMAL

WEAR

All component wear rates are normal for time on oil.

Iron	ppm	ASTM D5185m	>100	255	194	162
Chromium	ppm	ASTM D5185m	>20	5	4	4
Nickel	ppm	ASTM D5185m	>2	4	3	3
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	14	14	17
Lead	ppm	ASTM D5185m	>40	17	8	6
Copper	ppm	ASTM D5185m	>330	71	24	25
Tin	ppm	ASTM D5185m	>15	12	2	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

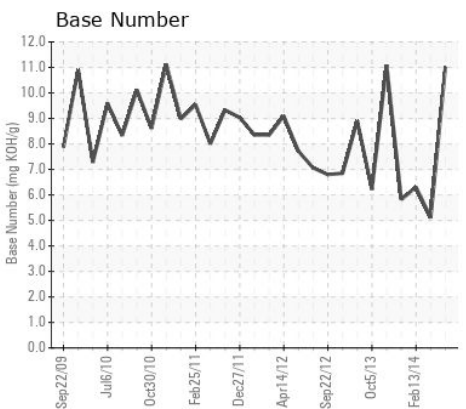
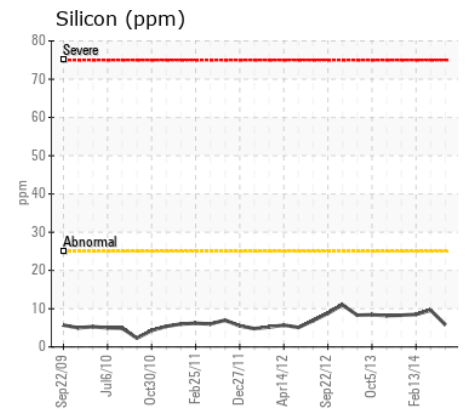
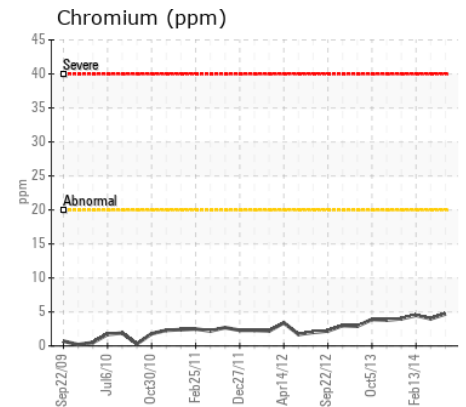
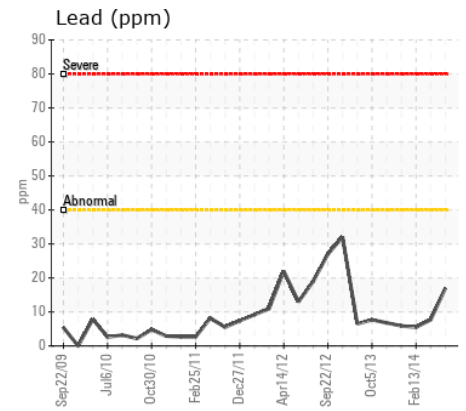
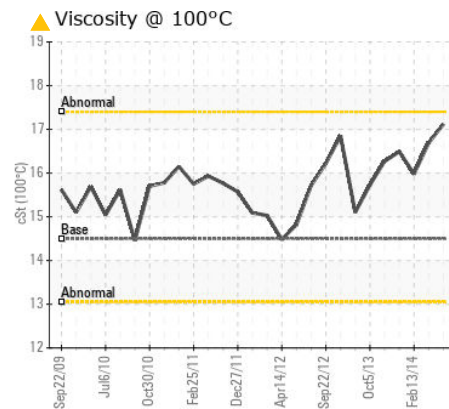
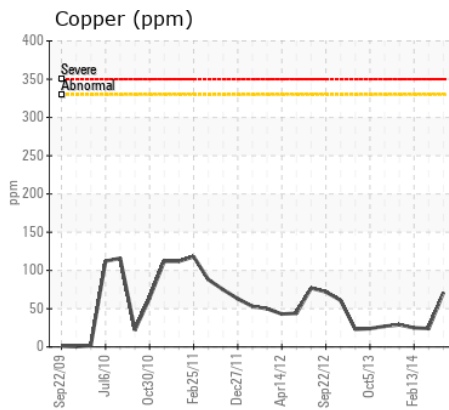
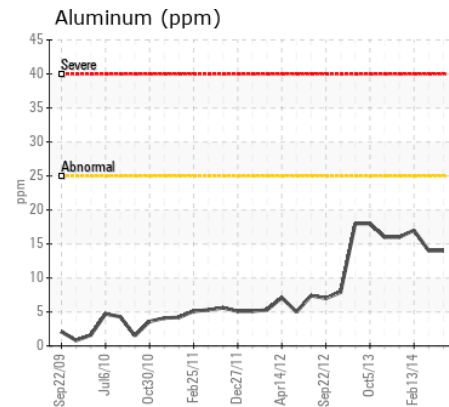
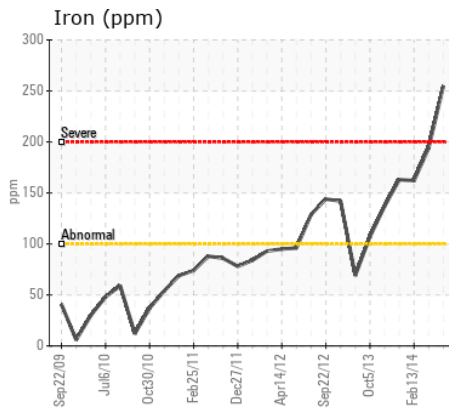
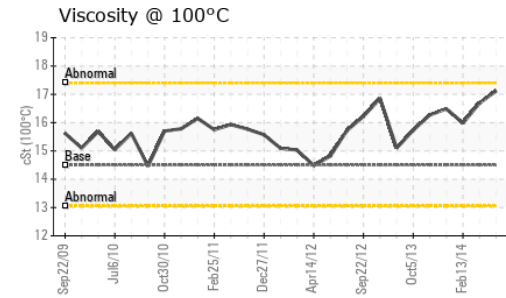
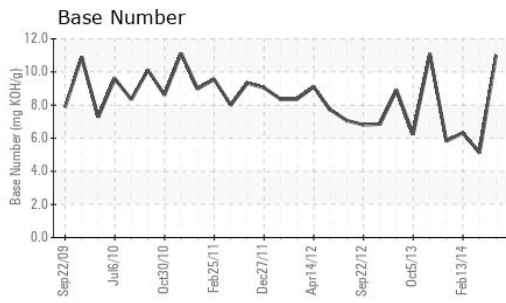
There is no indication of any contamination in the component.

Silicon	ppm	ASTM D5185m	>25	6	10	8
Potassium	ppm	ASTM D5185m	>20	3	<1	4
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.4	2.9	▲ 3.3
Nitration	Abs/cm	*ASTM D7624		5.	9.	10.
Sulfation	Abs/.1mm	*ASTM D7415		16.	22.	28.
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	>0.2	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		7	8	8
Boron	ppm	ASTM D5185m		50	72	70
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		93	91	94
Manganese	ppm	ASTM D5185m		4	2	2
Magnesium	ppm	ASTM D5185m		349	394	368
Calcium	ppm	ASTM D5185m		1880	1854	1745
Phosphorus	ppm	ASTM D5185m		1126	1071	1068
Zinc	ppm	ASTM D5185m		1208	1278	1276
Sulfur	ppm	ASTM D5185m		785	2987	1166
Oxidation	Abs/.1mm	*ASTM D7414		9.	18.	20.
Base Number (BN)	mg KOH/g	ASTM D2896		11.01	5.11	6.31
Visc @ 100°C	cSt	ASTM D445	14.5	▲ 17.12	▲ 16.69	15.98



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KLMFA12052 **Received** : 16 Jun 2014
Lab Number : 03523111 **Diagnosed** : 16 Jun 2014
Unique Number : 6650996 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: 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)