



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	MARGINAL

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

RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We recommend you service the filters on this component. 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

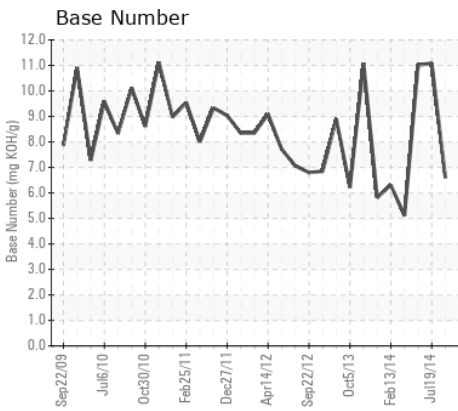
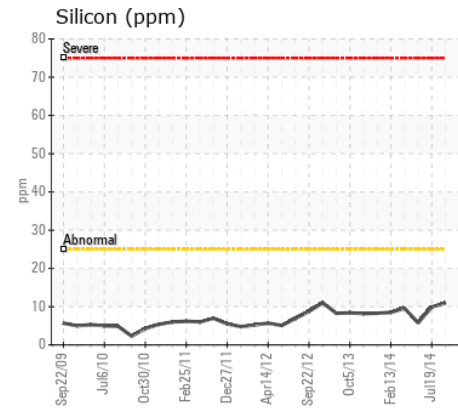
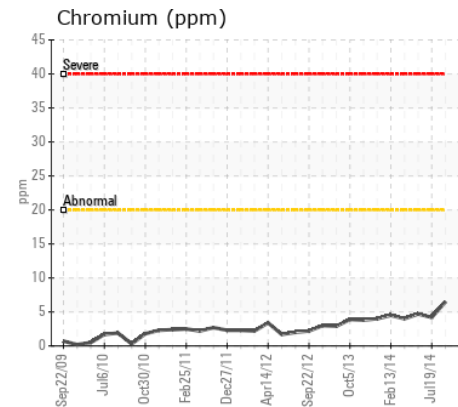
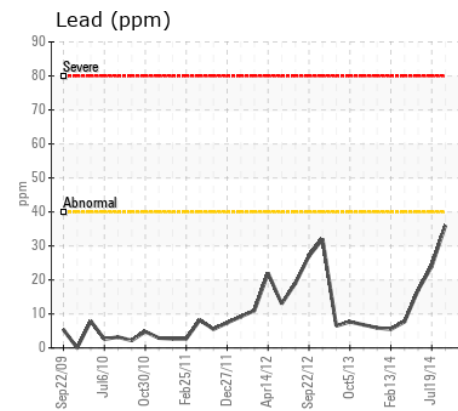
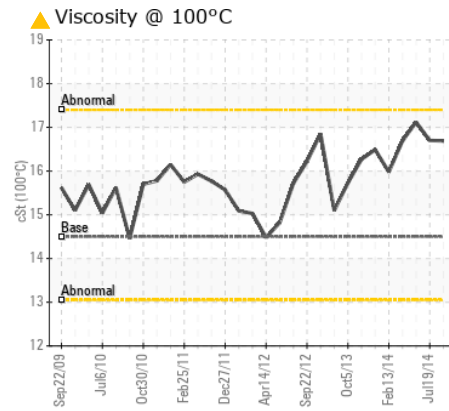
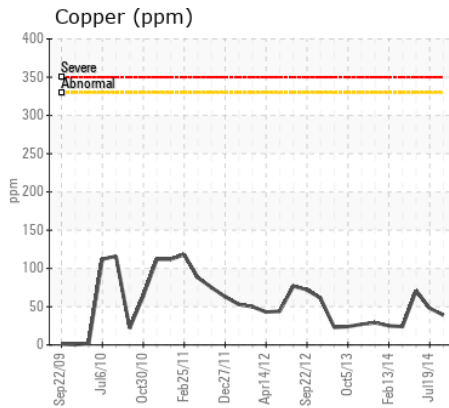
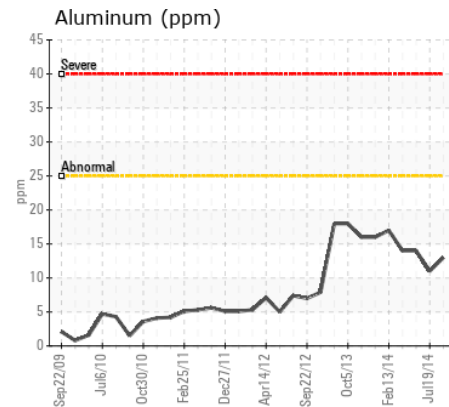
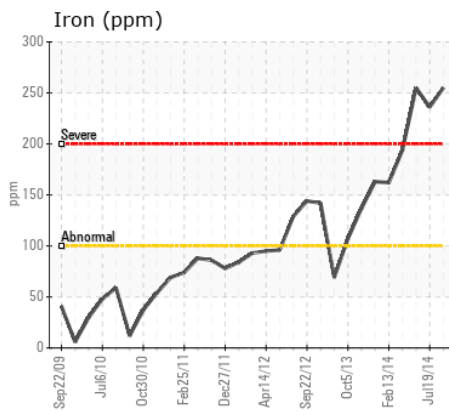
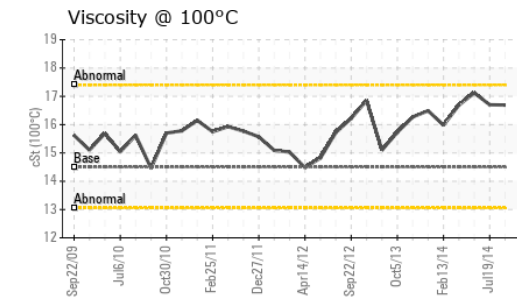
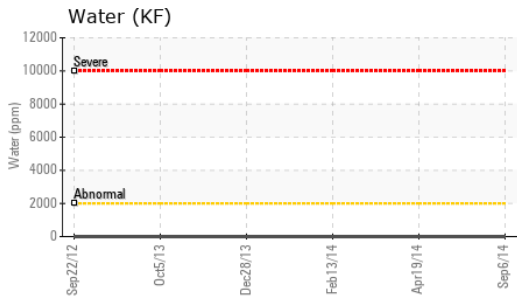
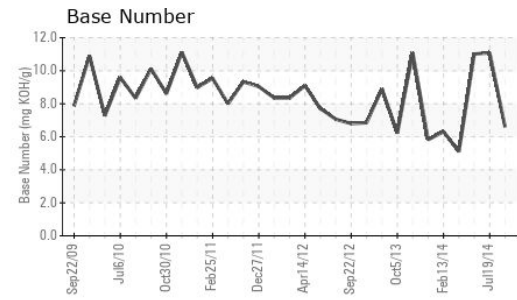
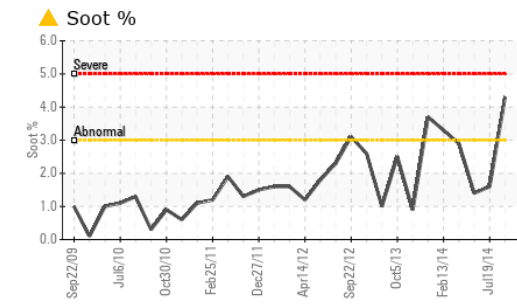
The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KLMFA13592	KLMFA12063	KLMFA12052
Sample Date		Client Info		06 Sep 2014	19 Jul 2014	31 May 2014
Machine Age	mls	Client Info		726963	210177	175845
Oil Age	mls	Client Info		309644	276420	242088
Filter Age	mls	Client Info		309644	276420	242088
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	MARGINAL	MARGINAL

Iron	ppm	ASTM D5185m	>100	255	236	255
Chromium	ppm	ASTM D5185m	>20	6	4	5
Nickel	ppm	ASTM D5185m	>2	4	3	4
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	13	11	14
Lead	ppm	ASTM D5185m	>40	36	24	17
Copper	ppm	ASTM D5185m	>330	39	48	71
Tin	ppm	ASTM D5185m	>15	4	9	12
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

Silicon	ppm	ASTM D5185m	>25	11	10	6
Potassium	ppm	ASTM D5185m	>20	1	3	3
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water	%	ASTM D6304	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	▲ 4.3	1.6	1.4
Nitration	Abs/cm	*ASTM D7624		13.	6.	5.
Sulfation	Abs/.1mm	*ASTM D7415		30.	18.	16.
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

Sodium	ppm	ASTM D5185m		7	5	7
Boron	ppm	ASTM D5185m		60	78	50
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		119	95	93
Manganese	ppm	ASTM D5185m		2	2	4
Magnesium	ppm	ASTM D5185m		412	394	349
Calcium	ppm	ASTM D5185m		1952	2091	1880
Phosphorus	ppm	ASTM D5185m		1225	1186	1126
Zinc	ppm	ASTM D5185m		1419	1260	1208
Sulfur	ppm	ASTM D5185m		653	4173	785
Oxidation	Abs/.1mm	*ASTM D7414		25.	11.	9.
Base Number (BN)	mg KOH/g	ASTM D2896		6.60	11.09	11.01
Visc @ 100°C	cSt	ASTM D445	14.5	▲ 16.69	▲ 16.7	▲ 17.12



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KLMFA13592 **Received** : 16 Sep 2014
Lab Number : 03582388 **Diagnosed** : 17 Sep 2014
Unique Number : 6745316 **Diagnostician** : Jonathan Hester
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)