



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

TMR-Punta Gorda

Machine Id

17723 VOLVO L90E 66418

Component

Diesel Engine

Fluid

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)



RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP443331	DJJ037154	DJJ023591
Sample Date		Client Info		09 Jul 2024	28 May 2020	24 Jul 2018
Machine Age	hrs	Client Info		19816	17249	14914
Oil Age	hrs	Client Info		0	0	14914
Filter Age	hrs	Client Info		0	0	14914
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	SEVERE	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	4	4	5
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	<1	1	1
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>20	0	<1	<1
Tin	ppm	ASTM D5185m	>20	0	0	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

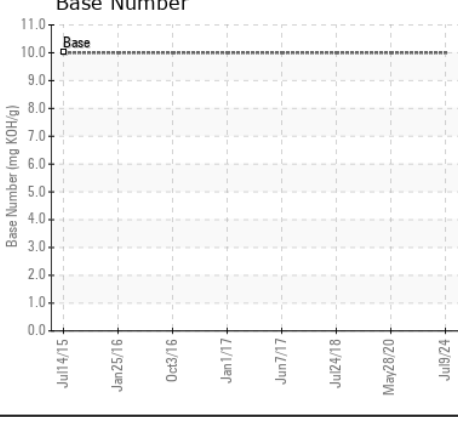
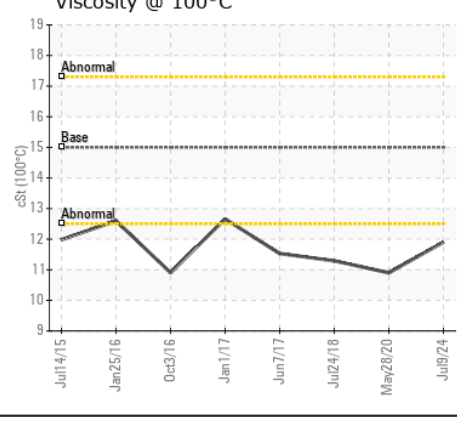
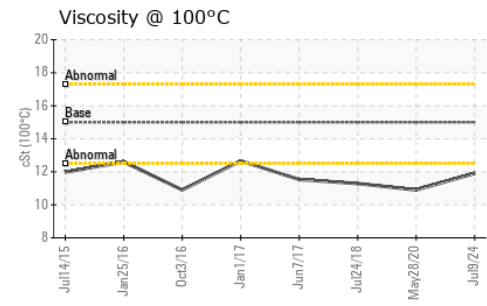
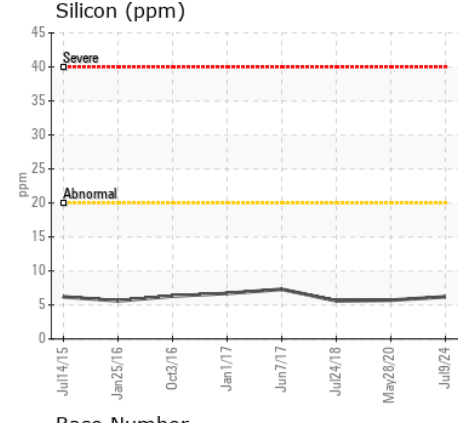
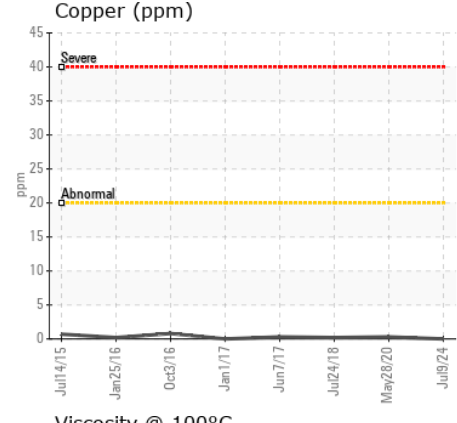
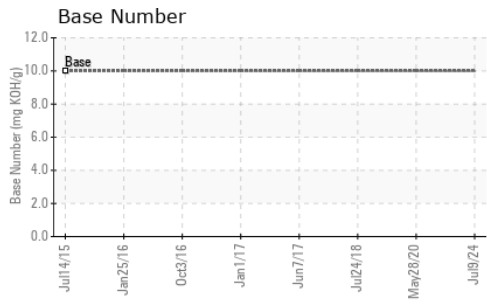
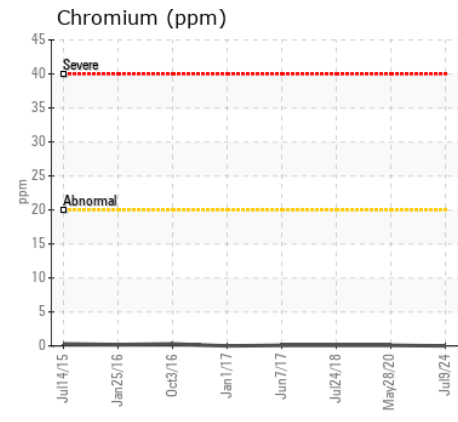
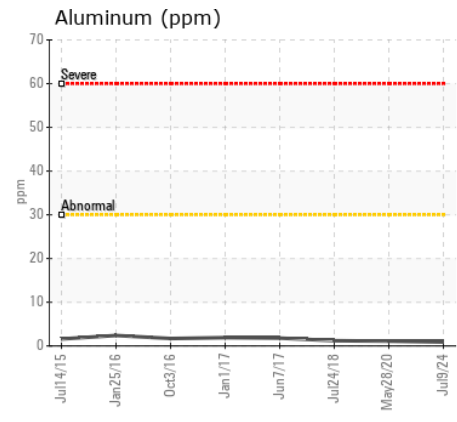
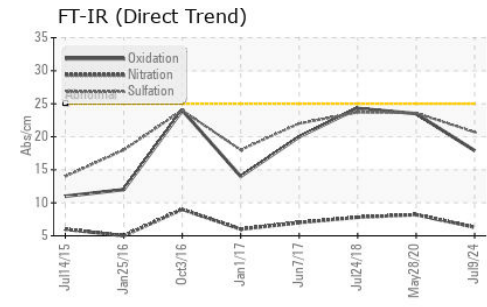
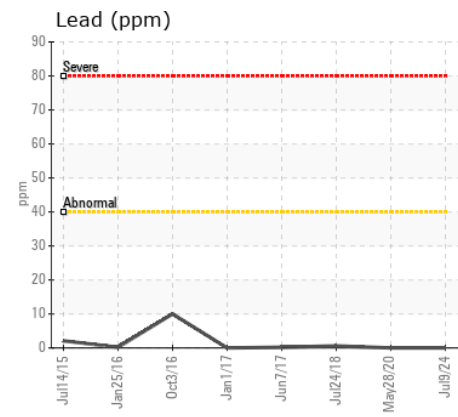
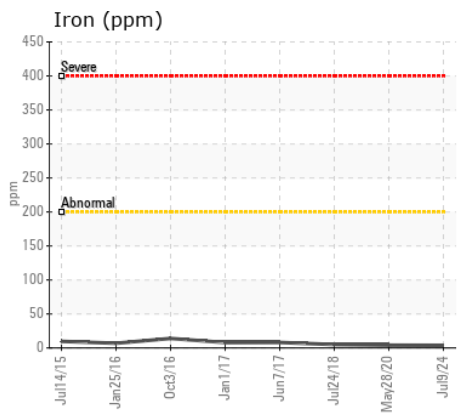
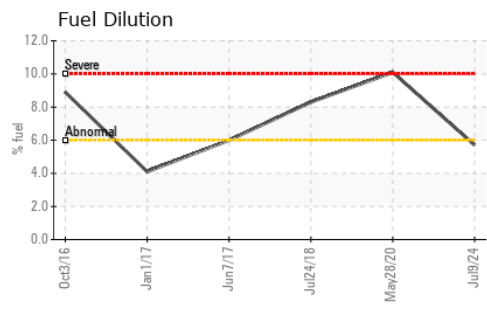
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>20	6	6	6
Potassium	ppm	ASTM D5185m	>20	<1	9	0
Fuel	%	ASTM D3524	>6.0	5.7	▲ 10.1	▲ 8.3
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	6.3	8.2	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	23.6	23.7
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	2	2
Boron	ppm	ASTM D5185m	2.5	47	41	30
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	41	31	31
Manganese	ppm	ASTM D5185m	0.0	0	<1	<1
Magnesium	ppm	ASTM D5185m	256	536	454	440
Calcium	ppm	ASTM D5185m	2057	1570	1402	1376
Phosphorus	ppm	ASTM D5185m	935	922	720	604
Zinc	ppm	ASTM D5185m	1223	1071	784	700
Sulfur	ppm	ASTM D5185m	4079	3293	1893	1805
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	23.5	24.3
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.4	---	---
Visc @ 100°C	cSt	ASTM D445	15.0	11.9	▲ 10.9	▲ 11.29



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP443331 **Received** : 15 Jul 2024
Lab Number : 06235445 **Tested** : 16 Jul 2024
Unique Number : 11124279 **Diagnosed** : 16 Jul 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

TRADEMARK METALS RECYCLING - PUNTA GORDA
 5005 DALEWOOD STREET
 PUNTA GORDA, FL
 US 33982
 Contact: RYAN BOWDEN

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)