



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**2018 VOLVO WD-03**  
 Component  
**Diesel Engine**  
 Fluid  
**TRC PRO-SPEC IV 15W40 (9 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR04398575	---	---
Sample Date		Client Info		30 Jan 2018	---	---
Machine Age	mls	Client Info		22324	---	---
Oil Age	mls	Client Info		9022	---	---
Filter Age	mls	Client Info		9022	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				NORMAL	---	---

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>80	12	---	---
Chromium	ppm	ASTM D5185m	>6	<1	---	---
Nickel	ppm	ASTM D5185m	>2	1	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	1	---	---
Aluminum	ppm	ASTM D5185m	>20	8	---	---
Lead	ppm	ASTM D5185m	>95	<1	---	---
Copper	ppm	ASTM D5185m	>85	244	---	---
Tin	ppm	ASTM D5185m	>9	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

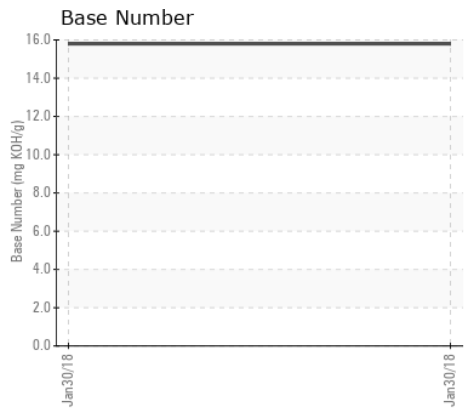
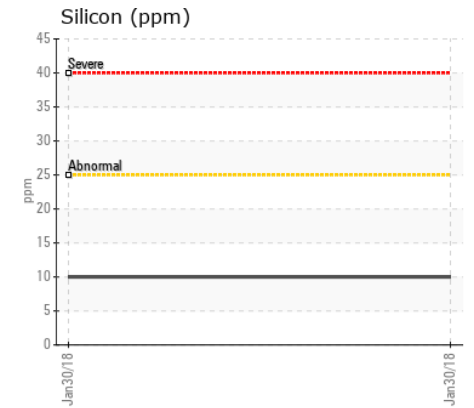
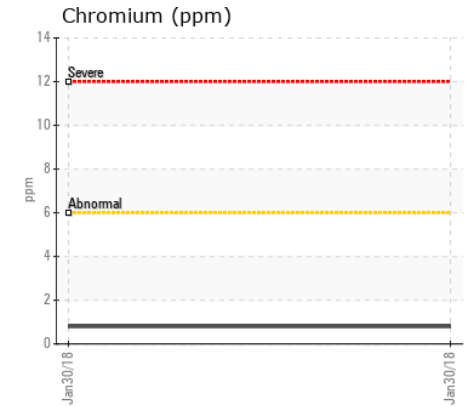
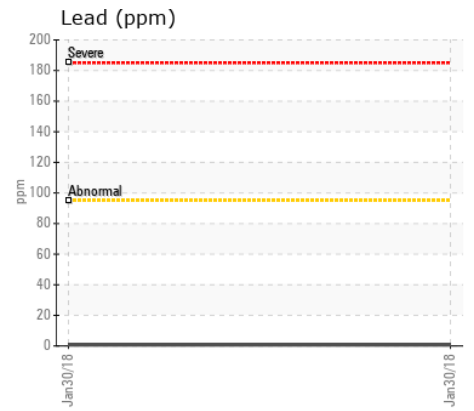
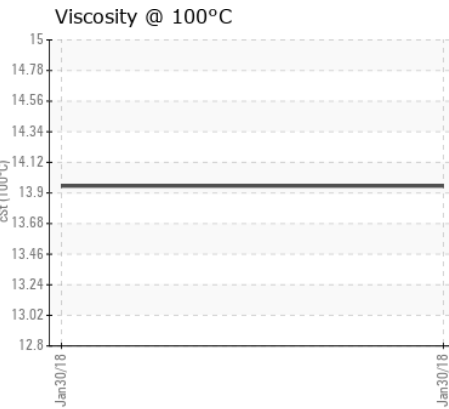
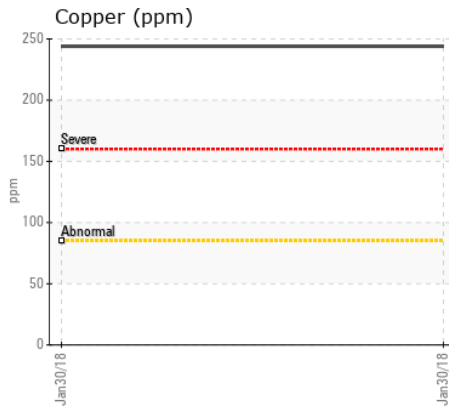
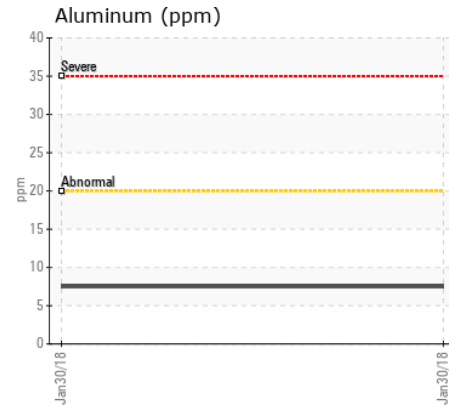
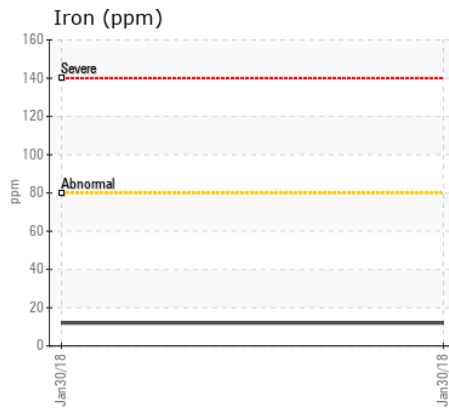
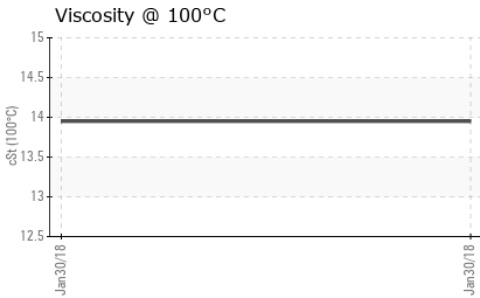
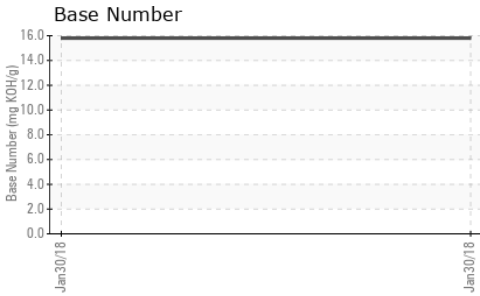
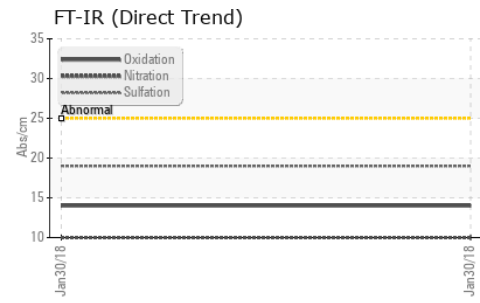
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	---	---
Potassium	ppm	ASTM D5185m	>20	26	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844		0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>25	10.	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>35	19.	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	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		4	---	---
Boron	ppm	ASTM D5185m		2	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		43	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		980	---	---
Calcium	ppm	ASTM D5185m		1923	---	---
Phosphorus	ppm	ASTM D5185m		1122	---	---
Zinc	ppm	ASTM D5185m		1279	---	---
Sulfur	ppm	ASTM D5185m		3387	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		15.8	---	---
Visc @ 100°C	cSt	ASTM D445		13.95	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR04398575  
**Lab Number** : 04398575  
**Unique Number** : 8082233  
**Test Package** : MOB 2

**Received** : 02 Feb 2018  
**Tested** : 05 Feb 2018  
**Diagnosed** : 05 Feb 2018 - Wes Davis

**BARKERS TRUCKING**  
 PO BOX 66  
 SHILOH, NC  
 US 27974  
 Contact: MICHAEL FRANCIS

To discuss this sample report, contact Customer Service at 1-800-827-0711.

\* - 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)

T:  
F: