TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
VOLVO A30G 2495
Component
Diesel Engine
Fluid
TRC MOLY XL PRO-SPEC III SYNTHETIC15W40 (13 GAL)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

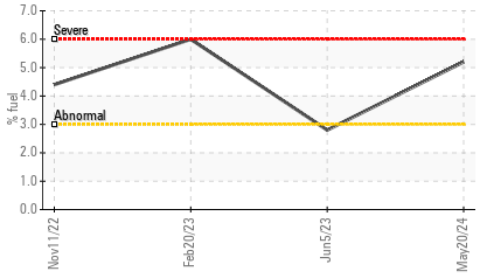
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

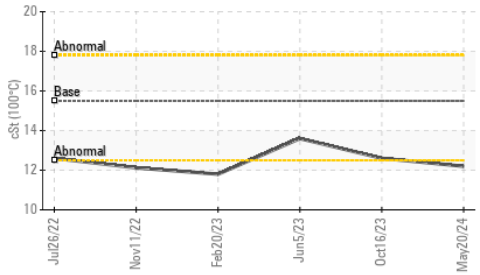
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06191247	TR05984221	TR05871132
Sample Date		Client Info		20 May 2024	16 Oct 2023	05 Jun 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		480	1044	529
Filter Age	hrs	Client Info		480	1044	529
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>200	7	11	5
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	3	3	<1
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>20	<1	<1	<1
Tin	ppm	ASTM D5185m	>20	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	6	6	5
Potassium	ppm	ASTM D5185m	>20	2	<1	0
Fuel	%	ASTM D3524	>3.0	▲ 5.2	<1.0	2.8
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.0	8.2	6.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	22.1	19.4
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		2	5	5
Boron	ppm	ASTM D5185m		197	152	231
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		188	160	156
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		366	407	378
Calcium	ppm	ASTM D5185m	4500	3466	3610	3702
Phosphorus	ppm	ASTM D5185m		891	894	817
Zinc	ppm	ASTM D5185m	1400	979	1034	915
Sulfur	ppm	ASTM D5185m		4054	3618	3868
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.7	13.4	12.0
Base Number (BN)	mg KOH/g	ASTM D2896	15	12.83	10.53	14.98
Visc @ 100°C	cSt	ASTM D445	15.5	▲ 12.2	12.6	13.6

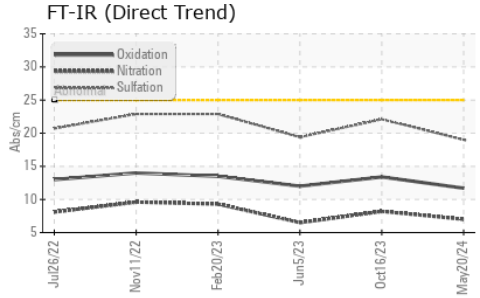
Fuel Dilution



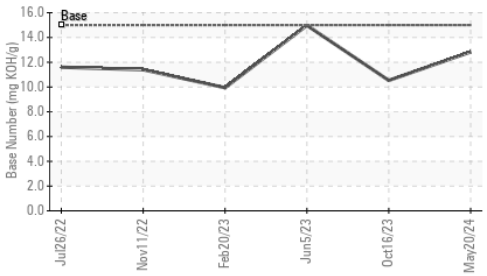
Viscosity @ 100°C



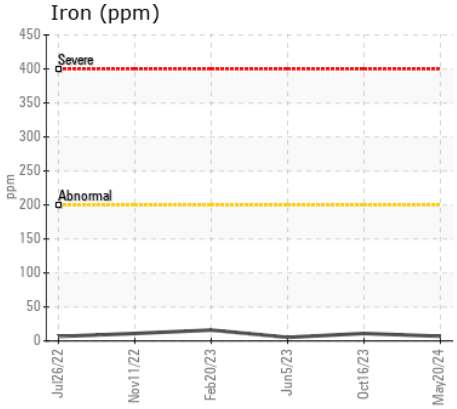
FT-IR (Direct Trend)



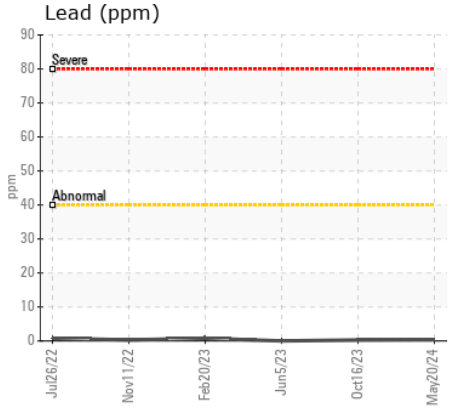
Base Number



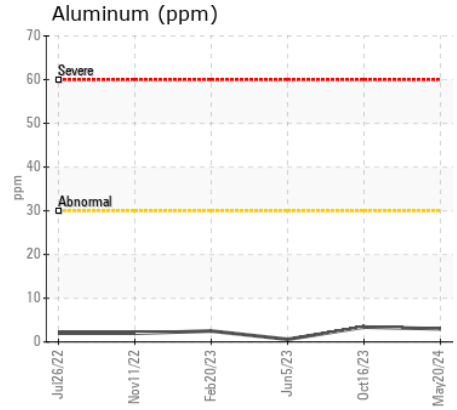
Iron (ppm)



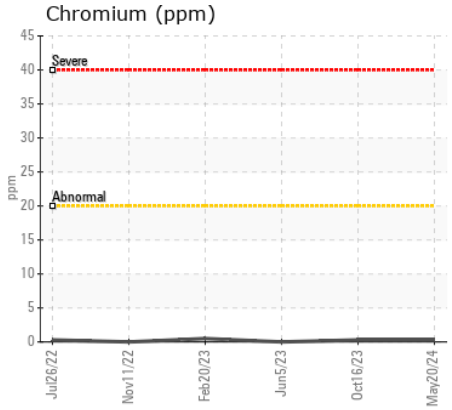
Lead (ppm)



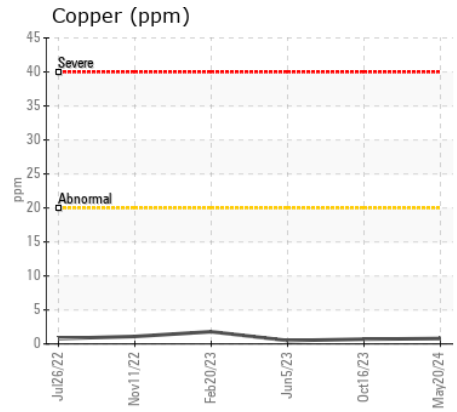
Aluminum (ppm)



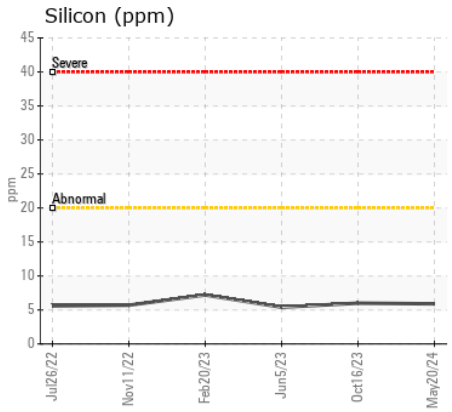
Chromium (ppm)



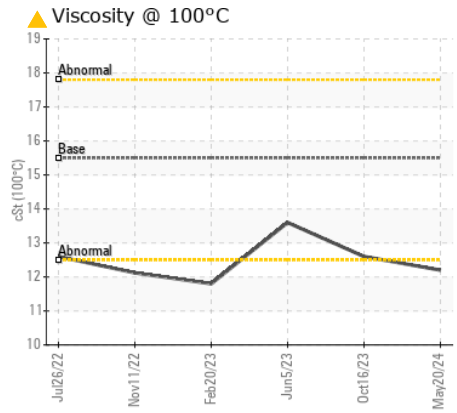
Copper (ppm)



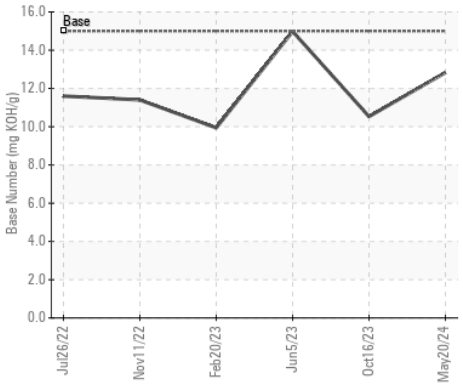
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06191247
Lab Number : 06191247
Unique Number : 11047999
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

Received : 24 May 2024
Tested : 31 May 2024
Diagnosed : 31 May 2024 - Wes Davis

NUTTER ENTERPRISES INC
28 STONE RD
BELMONT, NH
US 03220
Contact: DON PERCY

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)

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F: