

Machine Id
VOLVO VNR 2126902 (S/N 4V4WC9EH7MN600466)
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (36 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0052349	PCA0052356	PCA0052375
Sample Date		Client Info		12 Jun 2023	04 Dec 2022	30 Mar 2022
Machine Age	mls	Client Info		160248	129408	97186
Oil Age	mls	Client Info		30840	32222	31488
Filter Age	mls	Client Info		30840	32222	31488
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

Valve wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	39	44	41
Chromium	ppm	ASTM D5185m	>20	1	1	1
Nickel	ppm	ASTM D5185m	>2	▲ 4	▲ 6	▲ 12
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>25	5	4	5
Lead	ppm	ASTM D5185m	>40	2	2	2
Copper	ppm	ASTM D5185m	>330	11	11	23
Tin	ppm	ASTM D5185m	>15	2	3	3
Vanadium	ppm	ASTM D5185m		0	<1	0
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 oil.

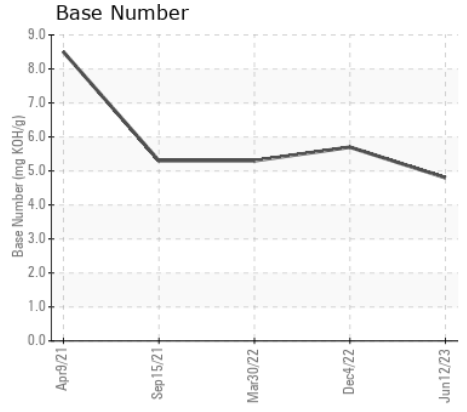
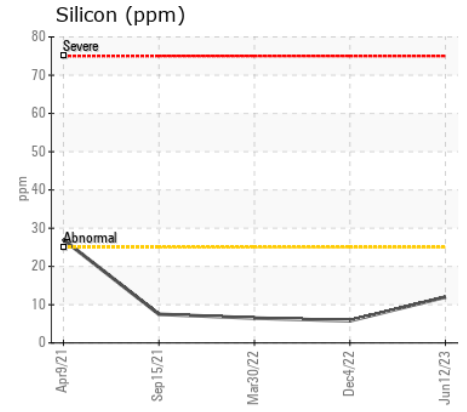
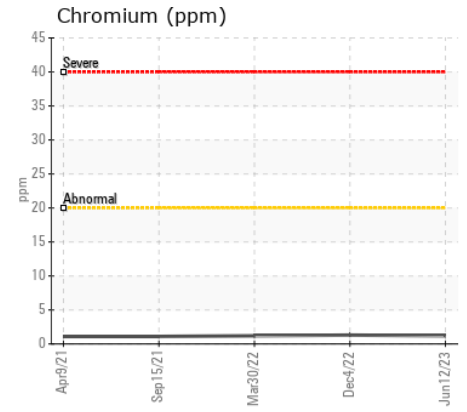
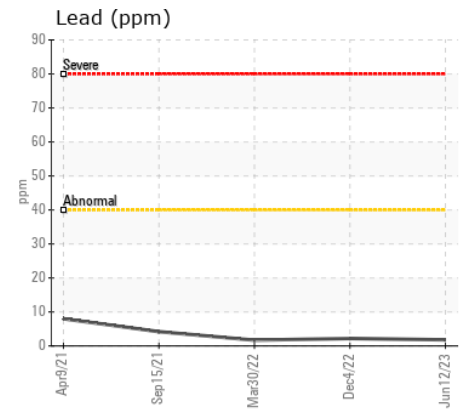
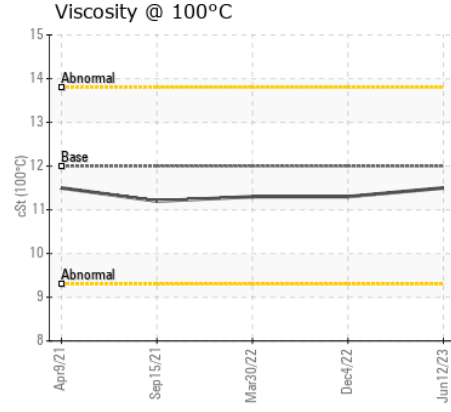
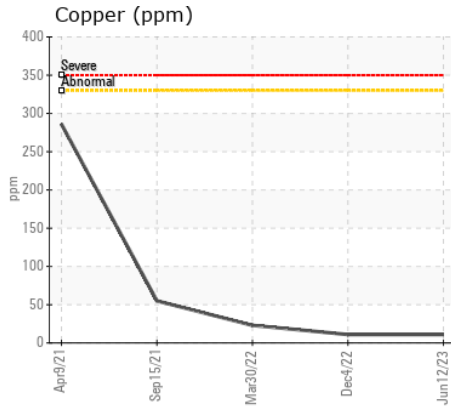
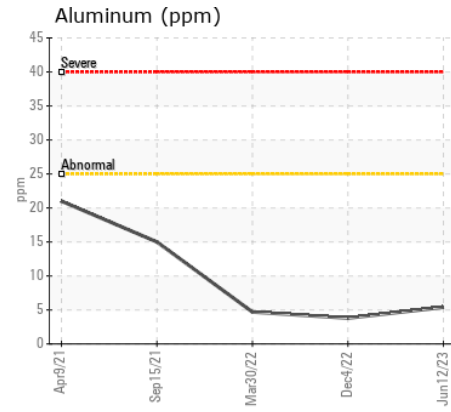
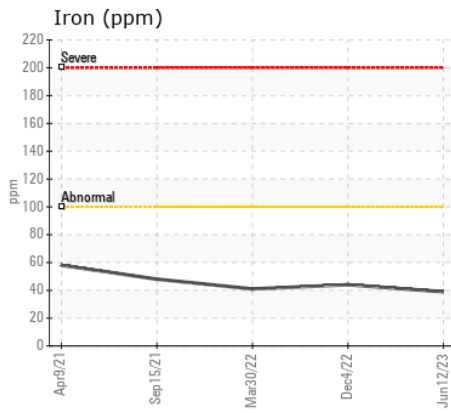
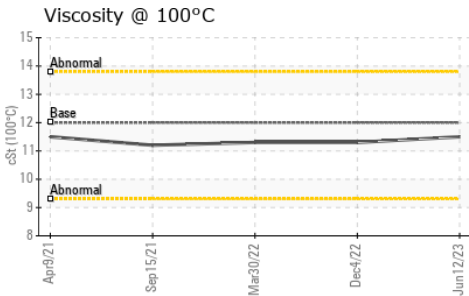
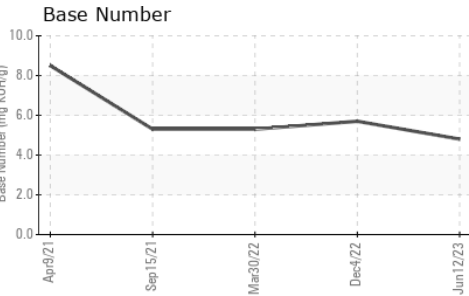
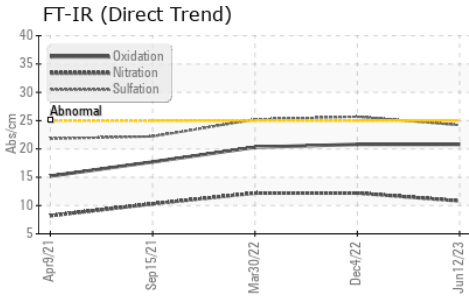
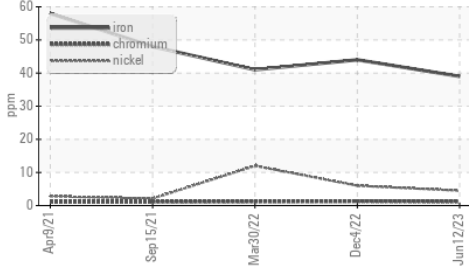
Silicon	ppm	ASTM D5185m	>25	12	6	6
Potassium	ppm	ASTM D5185m	>20	5	7	8
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.8	0.7
Nitration	Abs/cm	*ASTM D7624	>20	10.8	12.2	12.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.2	25.7	25.2
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		3	2	2
Boron	ppm	ASTM D5185m	2	0	3	2
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	50	61	66	62
Manganese	ppm	ASTM D5185m	0	1	1	1
Magnesium	ppm	ASTM D5185m	950	972	990	945
Calcium	ppm	ASTM D5185m	1050	1106	1161	1161
Phosphorus	ppm	ASTM D5185m	995	941	1021	1010
Zinc	ppm	ASTM D5185m	1180	1251	1355	1216
Sulfur	ppm	ASTM D5185m	2600	2916	3200	2199
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.8	20.8	20.3
Base Number (BN)	mg KOH/g	ASTM D2896		4.8	5.7	5.3
Visc @ 100°C	cSt	ASTM D445	12.00	11.5	11.3	11.3

▲ Ferrous Alloys



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0052349
Lab Number : 05883825
Unique Number : 10534308
Test Package : MOB1+

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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)