

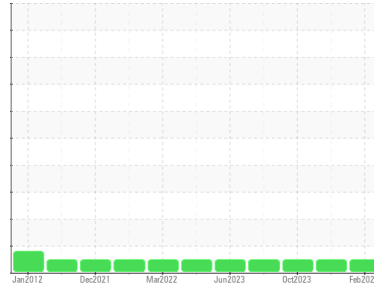


OIL ANALYSIS REPORT



Area
WMR-Pueblo
 Machine Id
110479 VOLVO EC460CL 110479
 Component
Diesel Engine
 Fluid
PHILLIPS 66 15W40 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		DJJ0009393	DJJ0015287	DJJ0008932
Sample Date	Client Info		16 Feb 2024	06 Dec 2023	05 Oct 2023
Machine Age	hrs	Client Info	16194	15994	15743
Oil Age	hrs	Client Info	200	250	200
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>6.0	<1.0	<1.0	<1.0
Water	WC Method	>0.1	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	4	2	5
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >10	0	<1	<1
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >10	1	2	0
Lead	ppm	ASTM D5185m >20	0	0	<1
Copper	ppm	ASTM D5185m >15	<1	0	<1
Tin	ppm	ASTM D5185m >10	<1	<1	<1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	104	127	109
Barium	ppm	ASTM D5185m	0	0	1
Molybdenum	ppm	ASTM D5185m	13	18	20
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	601	690	620
Calcium	ppm	ASTM D5185m	1258	1329	1265
Phosphorus	ppm	ASTM D5185m	631	725	669
Zinc	ppm	ASTM D5185m	657	834	794
Sulfur	ppm	ASTM D5185m	2628	2994	3082

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	4	3	3
Sodium	ppm	ASTM D5185m	2	2	0
Potassium	ppm	ASTM D5185m >20	1	5	3

INFRA-RED

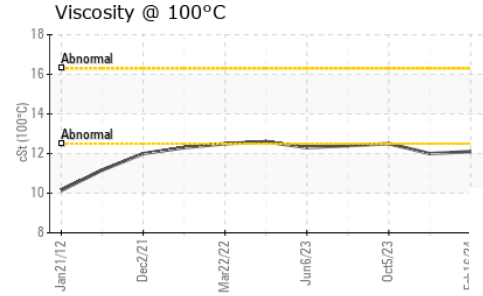
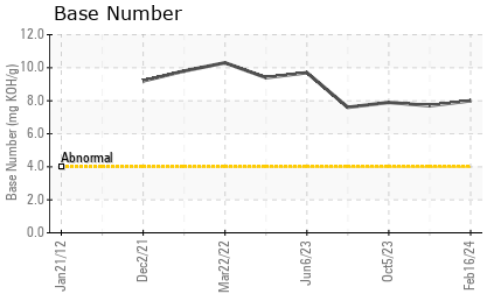
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	0.3	0.3
Nitration	Abs/cm	*ASTM D7624 >20	7.1	7.4	7.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	17.5	18.0	18.3

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	11.7	12.2	12.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.0	7.7	7.9



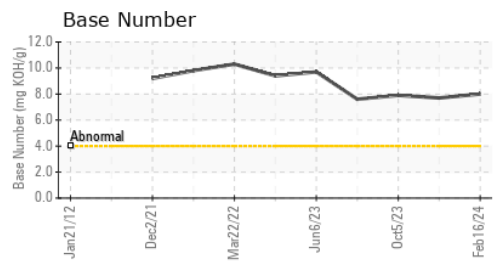
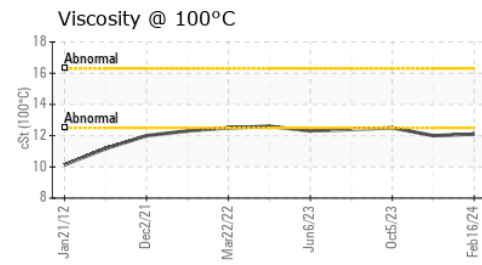
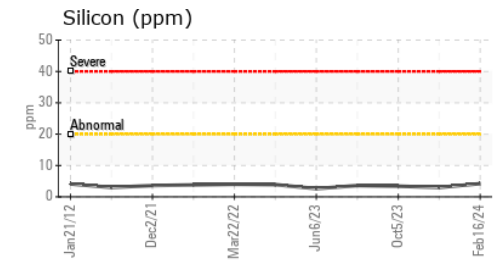
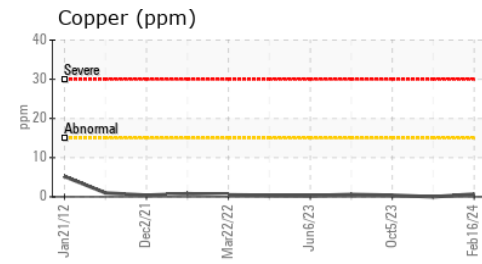
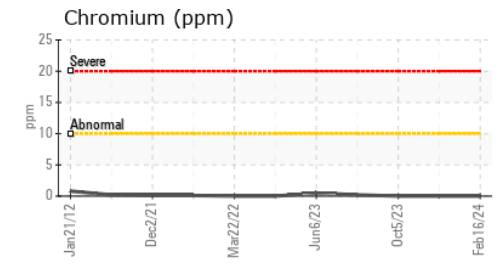
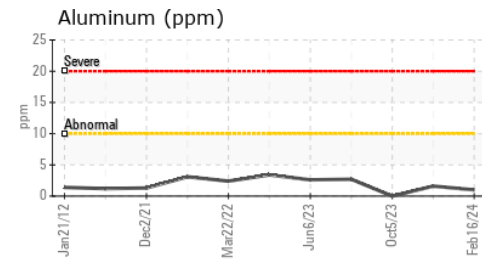
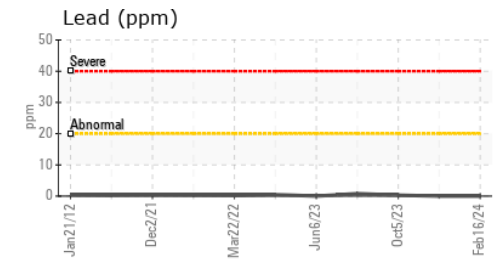
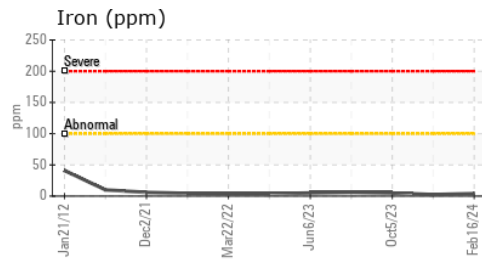
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.1	12.0	12.5

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0009393 **Received** : 23 Feb 2024
Lab Number : 06098249 **Tested** : 26 Feb 2024
Unique Number : 10896479 **Diagnosed** : 26 Feb 2024 - Don Baldrige
Test Package : MOBCE (Additional Tests: TBN)

WESTERN METALS RECYCLING - PLYMOUTH
 7400 WEST CEMETERY ROAD
 PLYMOUTH, UT
 US 84330
 Contact: JARDEE STEED
 jardee.steed@wmrecycling.com
 T: (435)458-3851
 F: (435)458-3601

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)