



CONSTRUCTION EQUIPMENT

VOLVO L110H 05632247 - DIESEL ENGINE



Sample No: VCP438661
Oil Type: VALVOLINE 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP438661	VCP434064	VCP407125	VCP407933
Sample Date	22 Jan 2024	20 Dec 2023	16 Oct 2023	09 Aug 2023
Machine Hours	6230	5944	5396	4793
Oil Hours	286	0	0	356
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

CITY CARTING
 221 OLD GATE LN
 MILFORD, CT
 US 06460
 Contact: TAVINS BANKS
 tavins@citycart.net
 T: (203)223-3885
 F:



OIL CONDITION

Visc @ 100°C	cSt	12.4	12.1	12.4	12.5
Base Number (BN)	mg KOH/g	7.1	6.9	6.3	6.6
Oxidation (PA)	%	34	37	45	42

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.2	0.2
Nitration (PA)	%	43	48	58	55
Sulfation (PA)	%	42	43	49	47
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	3	5	7	6
Sodium	ppm	<1	0	2	0
Potassium	ppm	3	2	0	1



WEAR METALS

Iron	ppm	<1	4	6	6
Copper	ppm	0	<1	<1	0
Lead	ppm	1	<1	0	<1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	2	2	4	3
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	27	48	30	46
Nickel	ppm	<1	<1	0	0
Titanium	ppm	0	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	0
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	1885	2068	2032	2107
Magnesium	ppm	138	150	136	164
Zinc	ppm	990	986	1021	1069
Phosphorus	ppm	852	773	728	844
Barium	ppm	0	9	0	0
Boron	ppm	32	24	12	21

Depot: CITMILCON
Unique No: 10857581
Signed: Wes Davis
Report Date: 01 Feb 2024

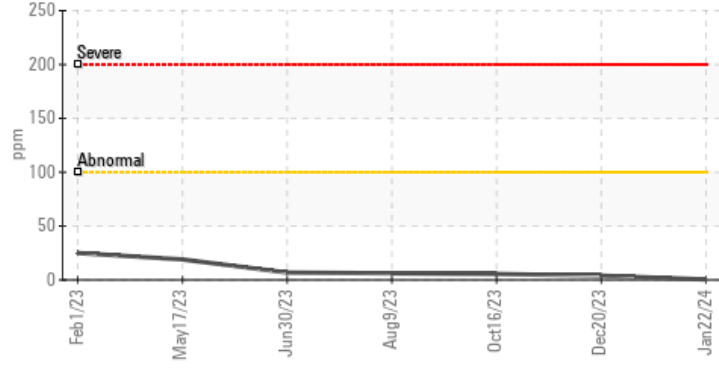


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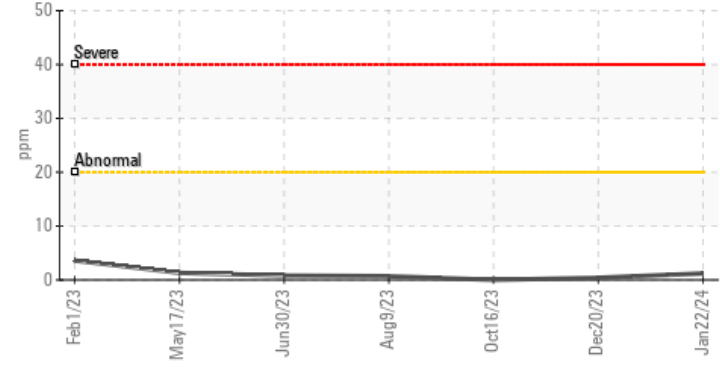


GRAPHS

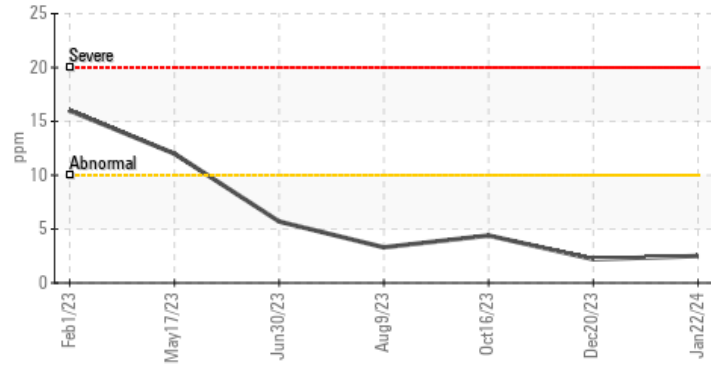
Iron (ppm)



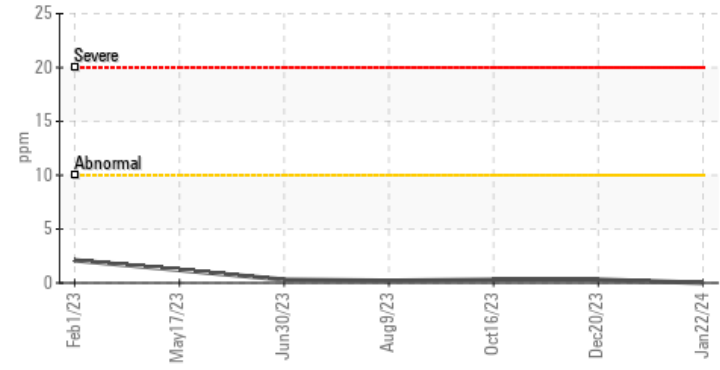
Lead (ppm)



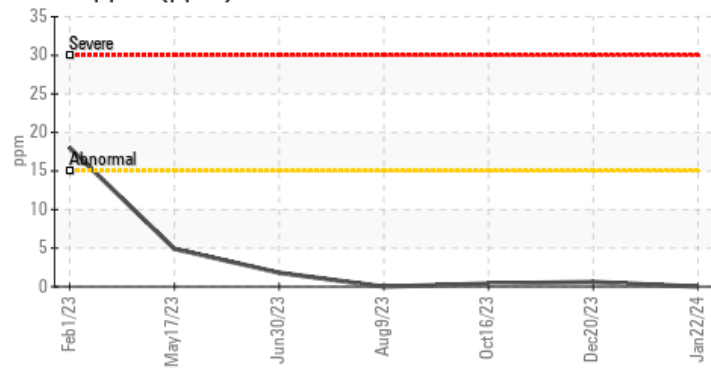
Aluminum (ppm)



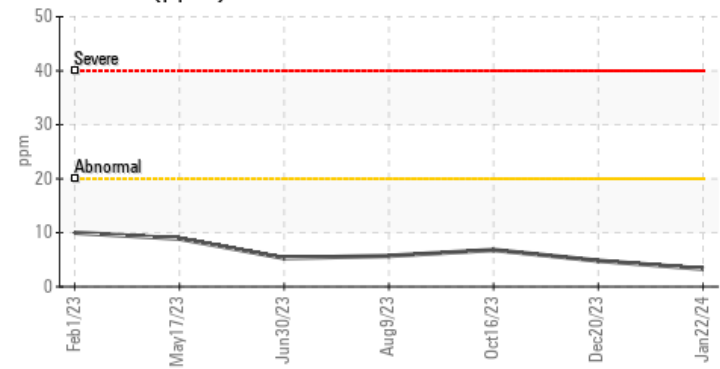
Chromium (ppm)



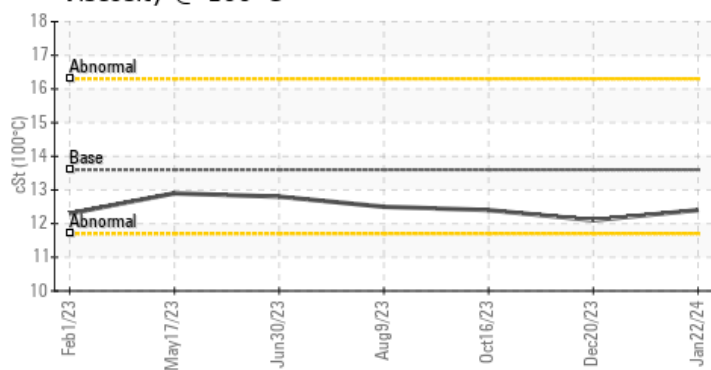
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

