



CONSTRUCTION EQUIPMENT

600189 WASTE MGMT VOLVO L120H 632191 - DIESEL ENGINE



Sample No: VCP379878
Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40
Job No: 600189 WASTE MGMT



SAMPLE INFORMATION

Sample Number	VCP379878	VCP424198	VCP371204	VCP363792
Sample Date	09 Jan 2024	07 Sep 2023	13 Jan 2023	11 Oct 2022
Machine Hours	17705	17291	16571	16520
Oil Hours	0	0	0	0
Oil Changed	Changed	Not Chngd	Changed	Changed
Sample Status	NORMAL	ABNORMAL	ABNORMAL	NORMAL

PACWEST MACHINERY
 8207 SOUTH 216TH STREET
 KENT, WA
 US 98032
 Contact: CHRIS COPELAND
 ccopeland@pacwestmachinery.com
 T: (800)935-5933
 F: (509)534-5286



OIL CONDITION

Visc @ 100°C	cSt	12.9	13.0	14.3	14.9
Base Number (BN)	mg KOH/g	10.1	9.8	9.1	7.8
Oxidation (PA)	%	80	73	63	121

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 acceptable for the time in service.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.2	0.4	0.9
Nitration (PA)	%	55	61	75	128
Sulfation (PA)	%	61	58	59	92
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	10	32	18
Sodium	ppm	3	5	17	4
Potassium	ppm	<1	0	16	0



WEAR METALS

Iron	ppm	13	16	24	29
Copper	ppm	1	1	2	3
Lead	ppm	0	0	1	3
Tin	ppm	<1	<1	<1	1
Aluminum	ppm	10	16	7	10
Chromium	ppm	<1	<1	1	2
Molybdenum	ppm	41	44	20	30
Nickel	ppm	0	0	<1	0
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1694	1892	1963	2685
Magnesium	ppm	554	571	299	449
Zinc	ppm	1164	1226	1136	1464
Phosphorus	ppm	997	1053	923	1206
Barium	ppm	0	0	0	0
Boron	ppm	48	66	26	23

Depot: VOLVO1271
Unique No: 10861599
Signed: Sean Felton
Report Date: 06 Feb 2024

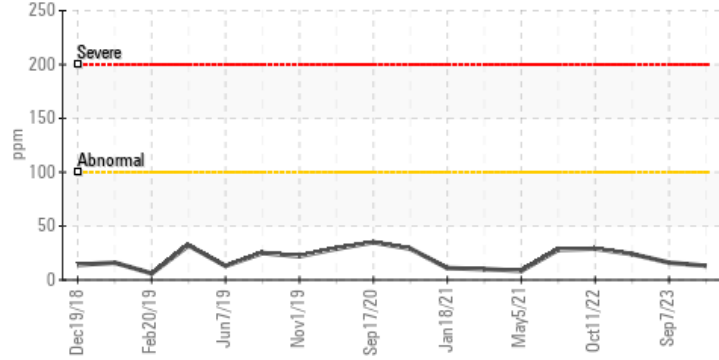


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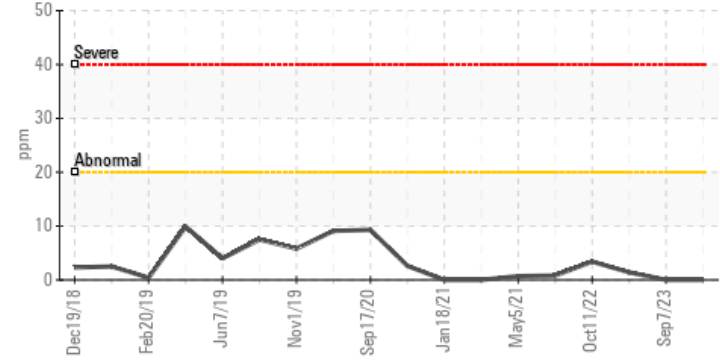


GRAPHS

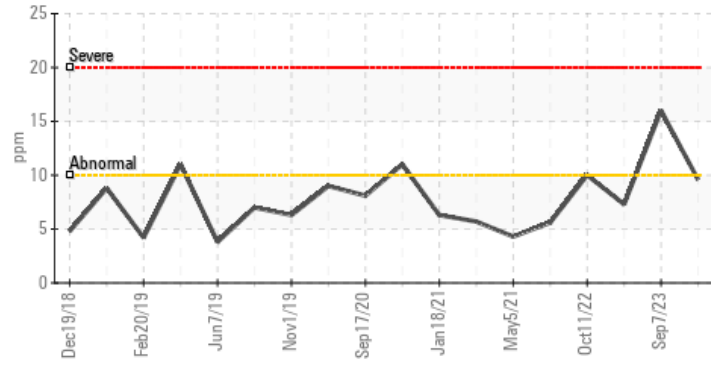
Iron (ppm)



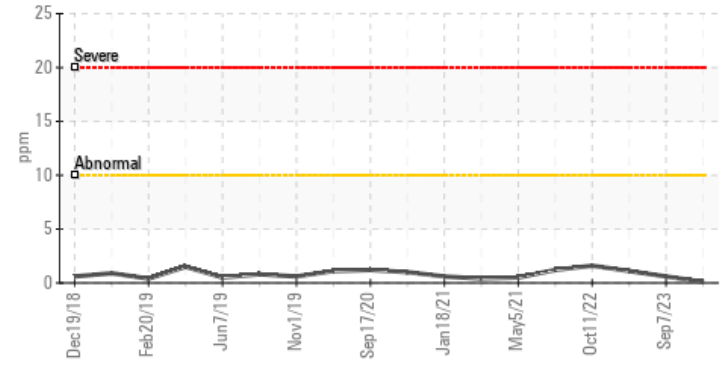
Lead (ppm)



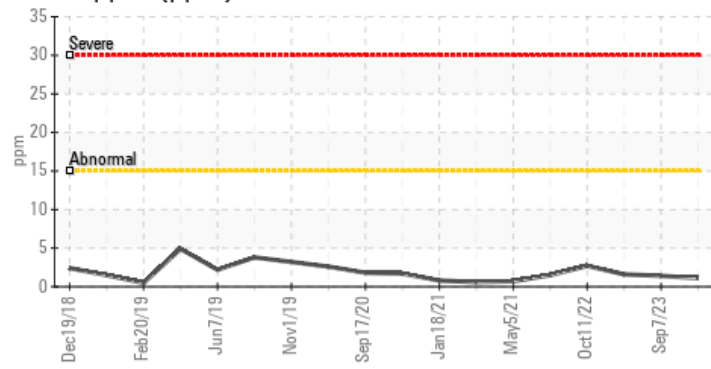
Aluminum (ppm)



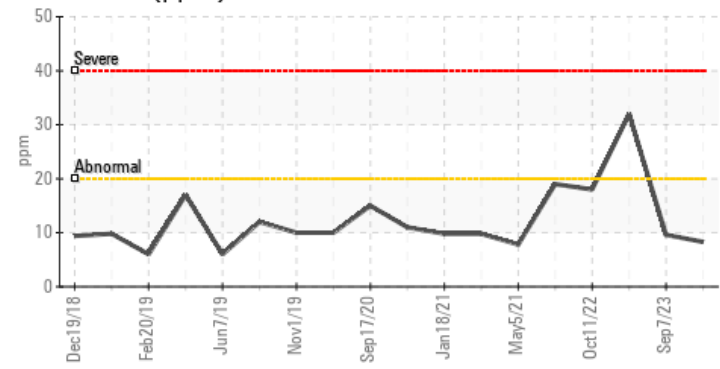
Chromium (ppm)



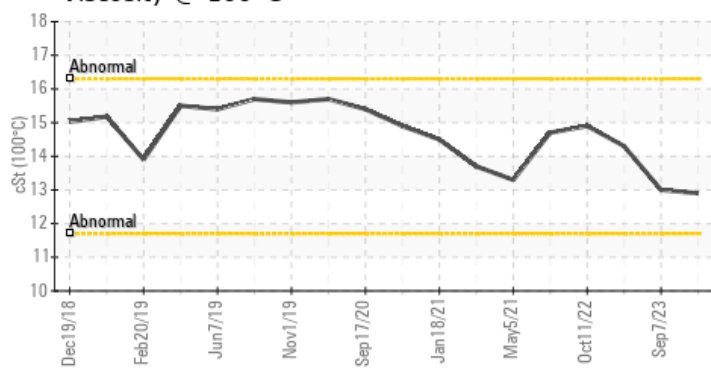
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

