



CONSTRUCTION EQUIPMENT

IMPACT AUTO 8-391804 VOLVO L90H 623897 - DIESEL ENGINE



Sample No: VCP393098
Oil Type: DIESEL ENGINE OIL SAE 40
Job No: 8-391804



SAMPLE INFORMATION

Sample Number	VCP393098	VCP430259	VCP392274	VCP381759
Sample Date	17 Jan 2024	28 Sep 2023	26 Jun 2023	21 Mar 2023
Machine Hours	11111	10515	9990	9507
Oil Hours	2000	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

STRONGCO EQUIPMENT INC.

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MISSISSAUGA, ON
CA L4W 4L4

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OIL CONDITION

Visc @ 100°C	cSt	13.6	13.5	13.2	12.8
Oxidation (PA)	%	88	80	84	86



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	1.1	0.8	0.5	0.2
Nitration (PA)	%	82	67	64	67
Sulfation (PA)	%	68	64	64	72
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	5	6	5
Sodium	ppm	3	3	3	3
Potassium	ppm	16	<1	0	0

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	21	13	9	10
Copper	ppm	1	<1	<1	<1
Lead	ppm	0	0	0	0
Tin	ppm	0	0	0	0
Aluminum	ppm	5	3	3	3
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	41	41	40	41
Nickel	ppm	<1	0	0	<1
Titanium	ppm	0	0	0	<1
Silver	ppm	0	<1	0	0
Manganese	ppm	0	0	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1787	1758	1721	1843
Magnesium	ppm	522	520	513	521
Zinc	ppm	1103	1135	1105	1094
Phosphorus	ppm	957	951	1001	1029
Barium	ppm	0	<1	0	0
Boron	ppm	22	24	33	41

Depot: SHEMIS
Unique No: 5711260
Signed: Wes Davis
Report Date: 22 Jan 2024

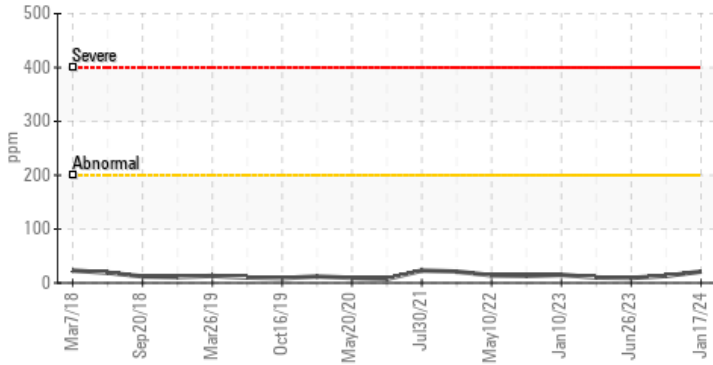


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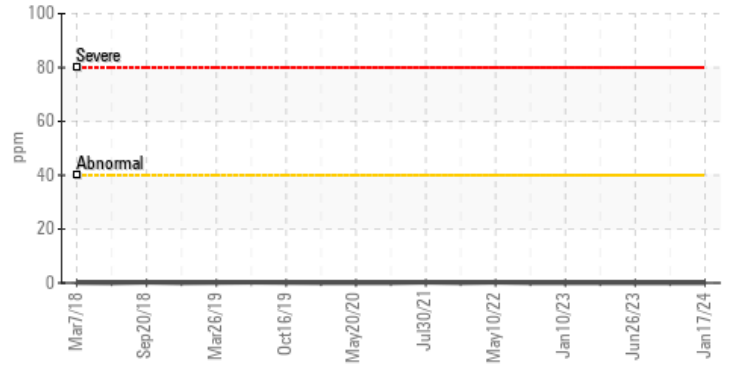


GRAPHS

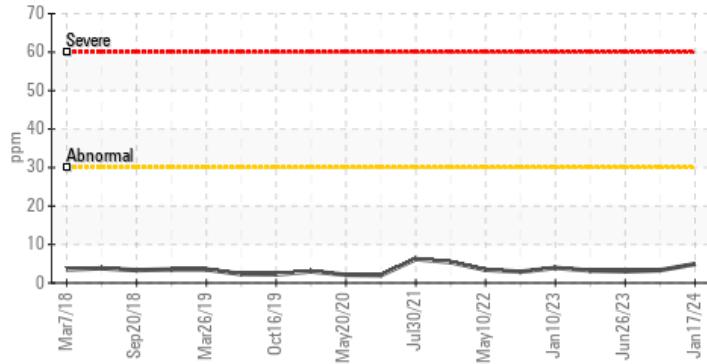
Iron (ppm)



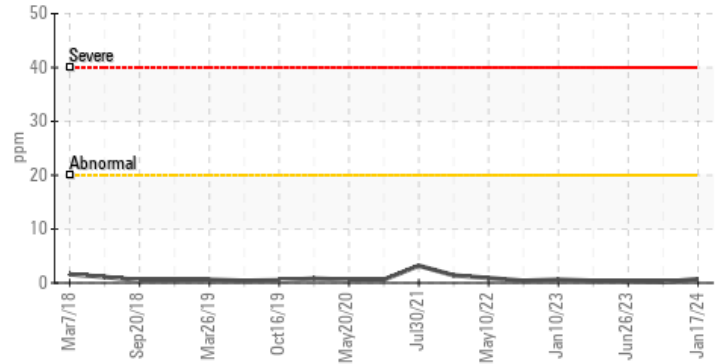
Lead (ppm)



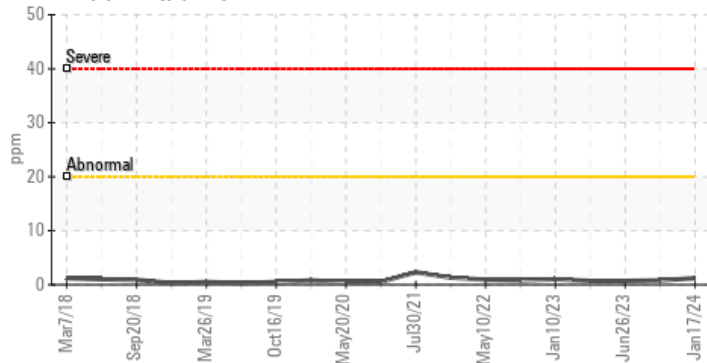
Aluminum (ppm)



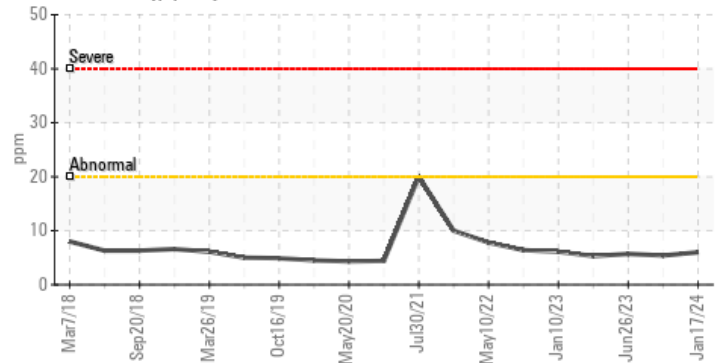
Chromium (ppm)



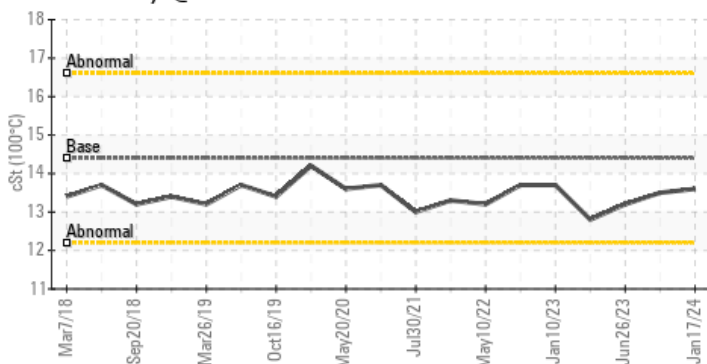
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Soot %

