



CONSTRUCTION EQUIPMENT

700877 DIPRO CATERPILLAR 972M HLSJ02687 - DIESEL ENGINE



Sample No: VCP445527
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 700877 DIPRO



SAMPLE INFORMATION

Sample Number	VCP445527	VCP452308	VCP431157	VCP414163
Sample Date	15 Apr 2024	27 Dec 2023	25 Sep 2023	10 Jul 2023
Machine Hours	17043	15831	15087	14435
Oil Hours	0	500	500	0
Oil Changed	N/A	Changed	Changed	N/A
Sample Status	NORMAL	SEVERE	SEVERE	SEVERE

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OIL CONDITION

Visc @ 100°C	cSt	13.3	8.85	7	6.8
Base Number (BN)	mg KOH/g	8.5	5.7	3.6	1.0
Oxidation (PA)	%	74	96	118	189

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. 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 %	%	0.6	0.6	0.4	0.7
Nitration (PA)	%	87	101	90	135
Sulfation (PA)	%	58	62	69	91
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	1.1	19.8	36.9	33.0
Silicon	ppm	9	4	3	6
Sodium	ppm	13	3	2	4
Potassium	ppm	2	<1	0	<1



WEAR METALS

Iron	ppm	79	32	23	51
Copper	ppm	2	2	2	2
Lead	ppm	<1	<1	2	16
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	5	4	<1	5
Chromium	ppm	1	2	1	3
Molybdenum	ppm	61	47	37	35
Nickel	ppm	<1	0	0	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	<1	0



ADDITIVES

Calcium	ppm	1254	787	628	659
Magnesium	ppm	977	747	591	597
Zinc	ppm	1310	951	742	770
Phosphorus	ppm	1095	776	588	651
Barium	ppm	2	0	0	0
Boron	ppm	0	0	0	<1

Depot: VOLVO2990
Unique No: 10996684
Signed: Don Baldrige
Report Date: 02 May 2024

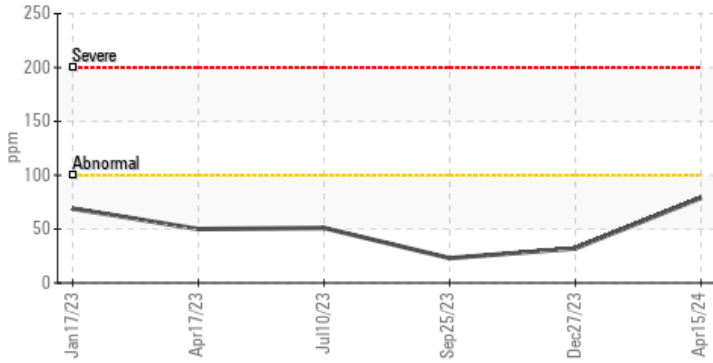


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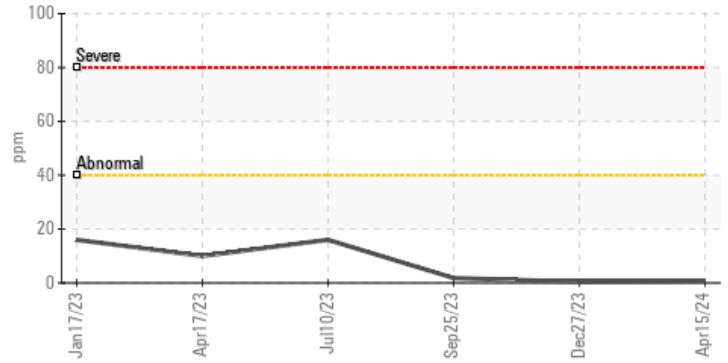


GRAPHS

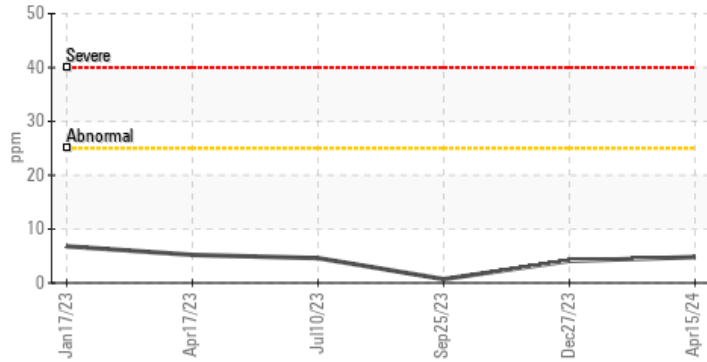
Iron (ppm)



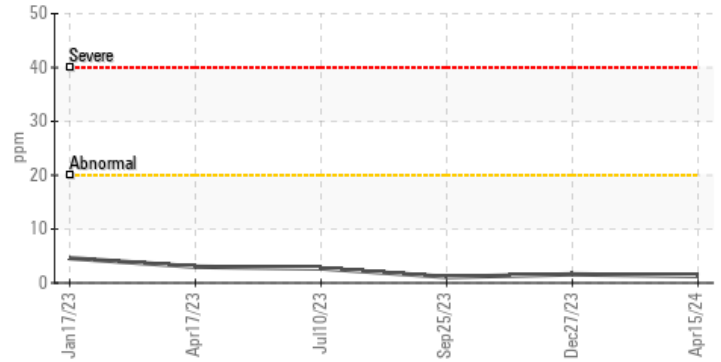
Lead (ppm)



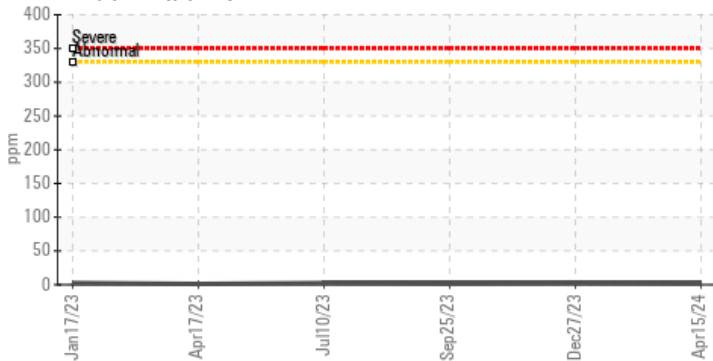
Aluminum (ppm)



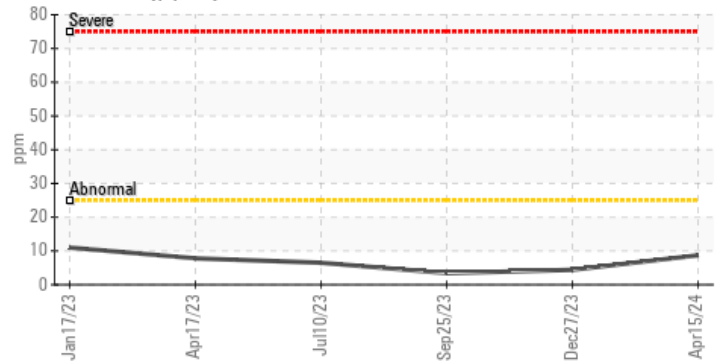
Chromium (ppm)



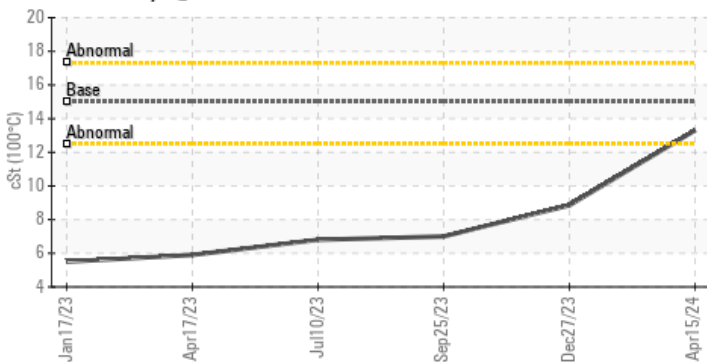
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

