



CONSTRUCTION EQUIPMENT

SW-29509-2 CASTLE VA VOLVO L70H 622855 - DIESEL ENGINE



Sample No: VCP412554
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW-29509-2 CASTLE VA



SAMPLE INFORMATION

Sample Number	VCP412554	VCP442143	VCP406963	VCP406314
Sample Date	02 Feb 2024	07 Nov 2023	10 Aug 2023	24 May 2023
Machine Hours	5834	5212	4609	4082
Oil Hours	620	600	600	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

ARNOLD MACHINERY COMPANY
 2975 WEST 2100 SOUTH
 SALT LAKE CITY, UT
 US 84119
 Contact: TONY PAYAN
 tpayan@arnoldmachinery.com
 T: (801)972-4000
 F: (801)975-9434



OIL CONDITION

Visc @ 100°C	cSt	13.6	12.8	13.2	13.2
Base Number (BN)	mg KOH/g	7.3	9.4	9.8	9.3
Oxidation (PA)	%	59	59	60	61

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 %	%	0.3	0.4	0.3	0.5
Nitration (PA)	%	70	62	57	66
Sulfation (PA)	%	52	53	54	54
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	4	4	5
Sodium	ppm	0	0	2	<1
Potassium	ppm	1	0	1	2



WEAR METALS

Iron	ppm	11	9	10	16
Copper	ppm	1	0	1	1
Lead	ppm	<1	0	<1	0
Tin	ppm	<1	<1	<1	1
Aluminum	ppm	4	3	3	7
Chromium	ppm	2	1	1	2
Molybdenum	ppm	70	64	64	63
Nickel	ppm	<1	<1	0	<1
Titanium	ppm	<1	0	<1	0
Silver	ppm	0	0	<1	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	<1	0



ADDITIVES

Calcium	ppm	1570	1071	1171	951
Magnesium	ppm	598	973	1029	850
Zinc	ppm	1280	1307	1317	1025
Phosphorus	ppm	1064	1068	1066	859
Barium	ppm	0	0	0	5
Boron	ppm	33	6	2	11

Depot: VOLVO8770
Unique No: 10872635
Signed: Wes Davis
Report Date: 12 Feb 2024

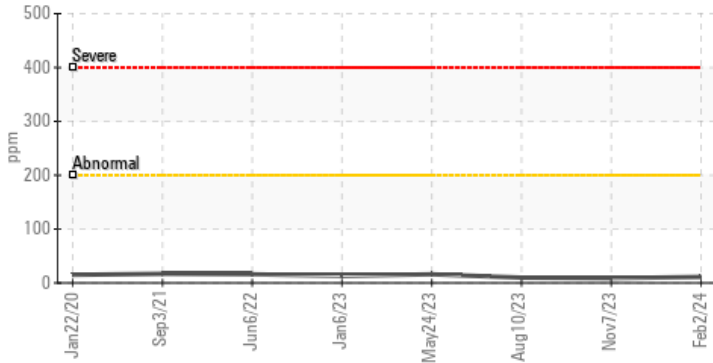


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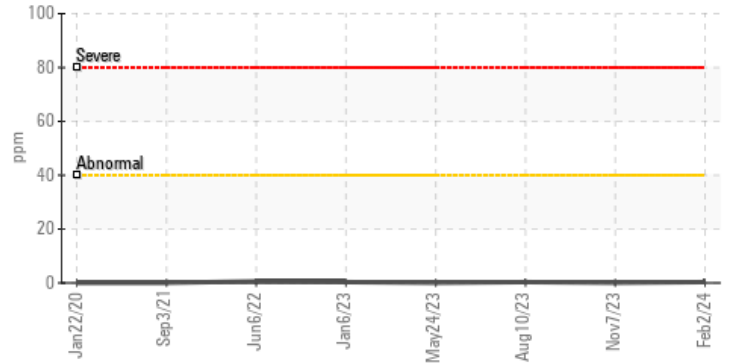


GRAPHS

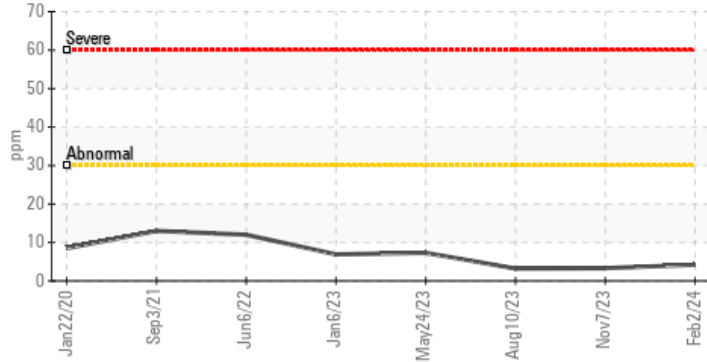
Iron (ppm)



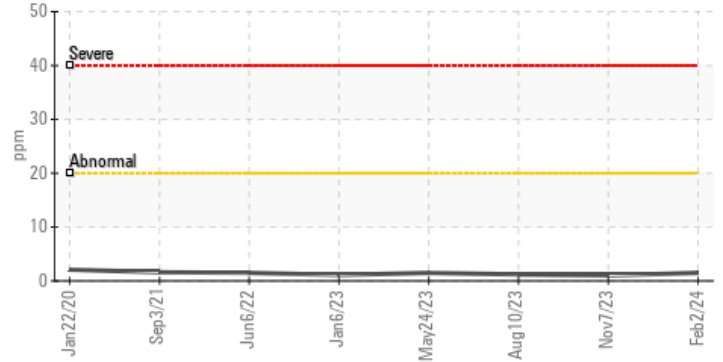
Lead (ppm)



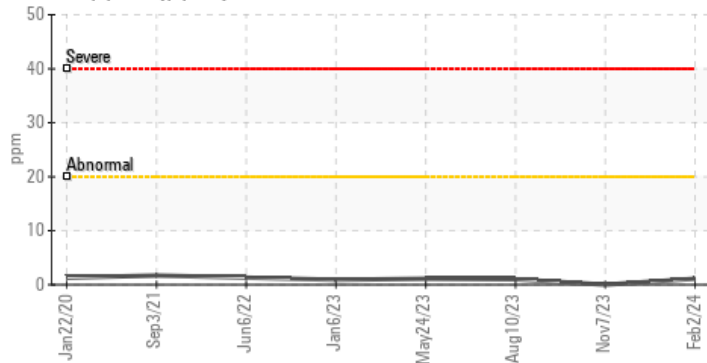
Aluminum (ppm)



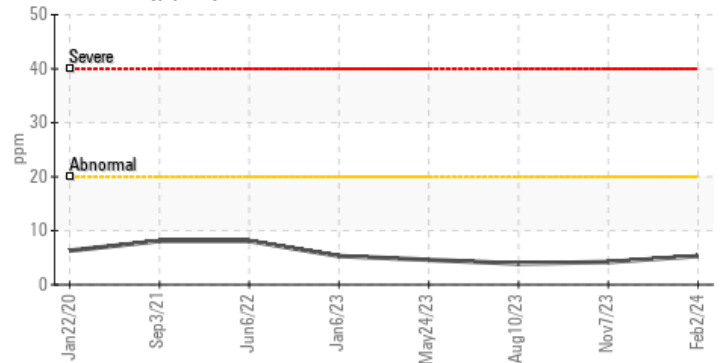
Chromium (ppm)



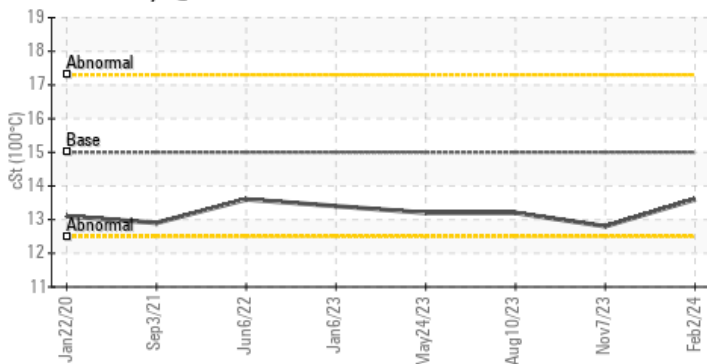
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

