



CONSTRUCTION EQUIPMENT

W02007688 VOLVO A35G 340132 - DIESEL ENGINE



Sample No: VCP426062
Oil Type: MOBIL 15W40
Job No: W02007688



SAMPLE INFORMATION

Sample Number	VCP426062	VCP419405	VCP396513	VCP277891
Sample Date	03 Nov 2023	15 Jun 2023	13 Mar 2023	26 Apr 2021
Machine Hours	9978	9559	9100	5941
Oil Hours	500	500	500	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	█ 12.4	█ 12.4	█ 12.7	█ 13.1
Base Number (BN)	mg KOH/g	█ 8.2	█ 7.1	█ 10.3	---
Oxidation (PA)	%	█ 63	█ 51	█ 81	█ 59



CONTAMINATION

Soot %	%	█ 0.2	█ 0.3	█ 0.3	█ 0.3
Nitration (PA)	%	█ 63	█ 69	█ 71	█ 71
Sulfation (PA)	%	█ 62	█ 55	█ 62	█ 56
Glycol	%	█ NEG	█ NEG	█ NEG	█ NEG
Fuel	%	█ <1.0	█ 0.5	█ <1.0	█ <1.0
Silicon	ppm	█ 8	█ 5	█ 17	█ 3
Sodium	ppm	▲ 314	▲ 274	▲ 87	█ 3
Potassium	ppm	▲ 40	▲ 39	▲ 35	█ 4



WEAR METALS

Iron	ppm	█ 7	█ 7	█ 62	█ 12
Copper	ppm	█ 1	█ <1	█ <1	█ 3
Lead	ppm	█ 0	█ 0	█ <1	█ 1
Tin	ppm	█ <1	█ <1	█ <1	█ <1
Aluminum	ppm	█ 5	█ 1	█ 7	█ 6
Chromium	ppm	█ <1	█ 0	█ <1	█ <1
Molybdenum	ppm	█ 130	█ 42	█ 50	█ 5
Nickel	ppm	█ <1	█ 0	█ <1	█ <1
Titanium	ppm	█ <1	█ 0	█ <1	█ <1
Silver	ppm	█ 0	█ 0	█ 0	█ 0
Manganese	ppm	█ <1	█ 0	█ <1	█ <1
Vanadium	ppm	█ 0	█ 0	█ 0	█ 0



ADDITIVES

Calcium	ppm	█ 1630	█ 2109	█ 1714	█ 1844
Magnesium	ppm	█ 586	█ 158	█ 498	█ 543
Zinc	ppm	█ 1000	█ 1093	█ 1087	█ 1051
Phosphorus	ppm	█ 829	█ 917	█ 909	█ 929
Barium	ppm	█ 0	█ 0	█ 0	█ 0
Boron	ppm	█ 229	█ 14	█ 34	█ 47

Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

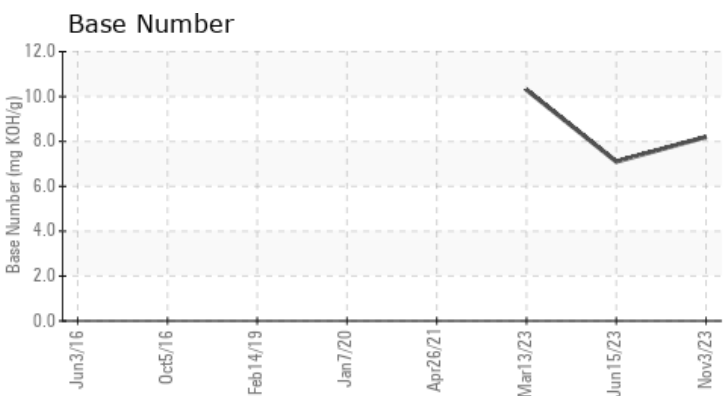
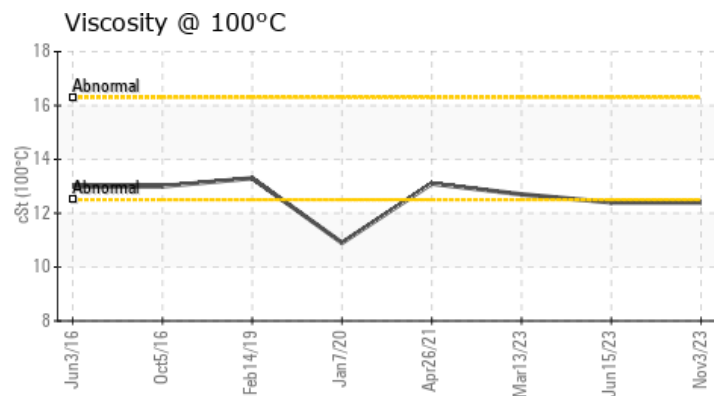
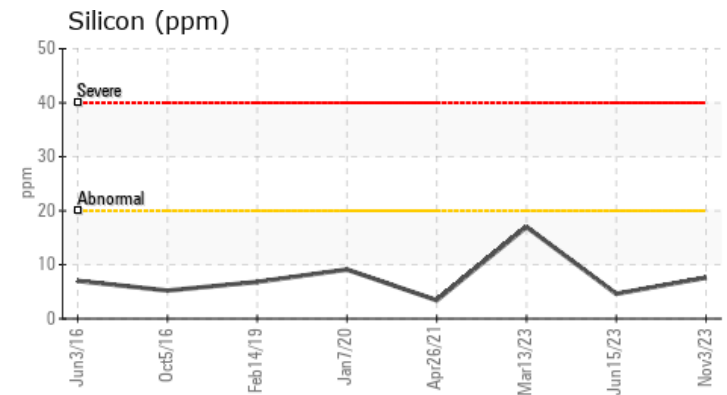
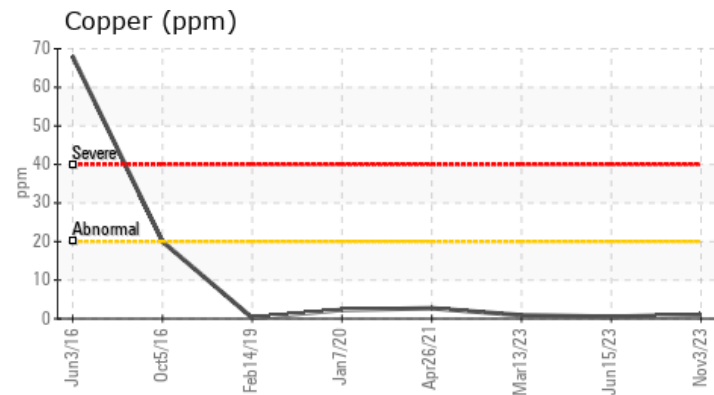
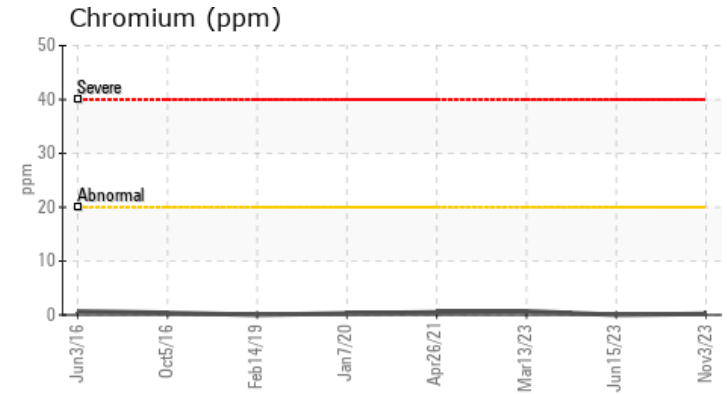
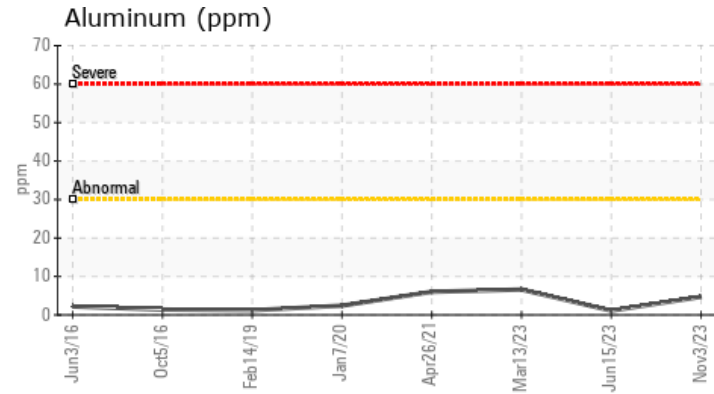
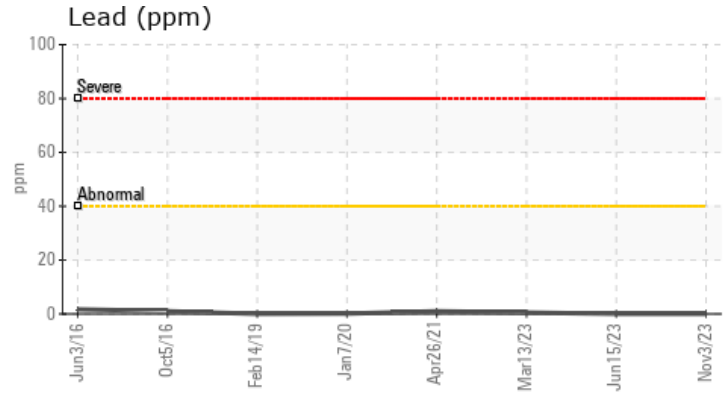
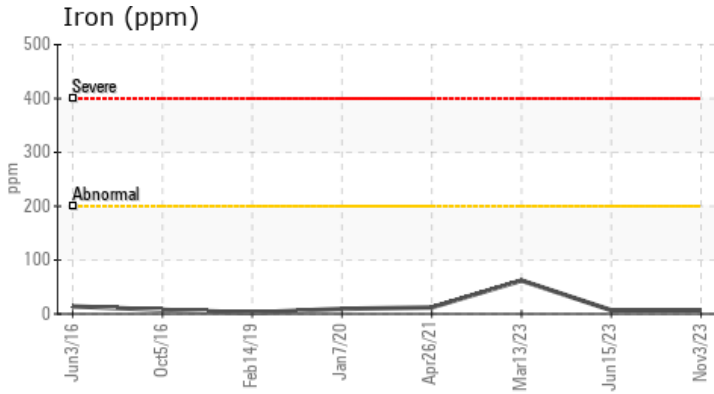
Depot: VOLVO0002
Unique No: 10727902
Signed: Jonathan Hester
Report Date: 08 Nov 2023



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CONSTRUCTION EQUIPMENT

W02007688 VOLVO A35G 340132 - TRANSMISSION (AUTO)



Sample No: VCP426058
Oil Type: VOLVO AT 102
Job No: W02007688



SAMPLE INFORMATION

Sample Number	VCP426058	VCP396796	VCP277893	VCP189852
Sample Date	03 Nov 2023	13 Mar 2023	26 Apr 2021	07 Jan 2020
Machine Hours	9978	9100	5941	5126
Oil Hours	2000	1000	0	0
Oil Changed	Changed	Not Changd	Changed	Not Changd
Sample Status	NORMAL	ABNORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 40°C	cSt	27.9	26.65	26.4	26.2
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CONTAMINATION

Silicon	ppm	5	5	2	6
Sodium	ppm	5	0	5	3
Potassium	ppm	<1	2	1	6

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 condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	30	25	40	37
Copper	ppm	20	18	14	12
Lead	ppm	0	0	0	0
Tin	ppm	2	2	4	2
Aluminum	ppm	21	18	25	23
Chromium	ppm	0	0	<1	0
Molybdenum	ppm	<1	<1	<1	0
Nickel	ppm	<1	1	2	2
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	157	194	82	86
Magnesium	ppm	<1	2	<1	1
Zinc	ppm	43	47	4	8
Phosphorus	ppm	193	227	162	155
Barium	ppm	0	0	0	0
Boron	ppm	87	87	76	69

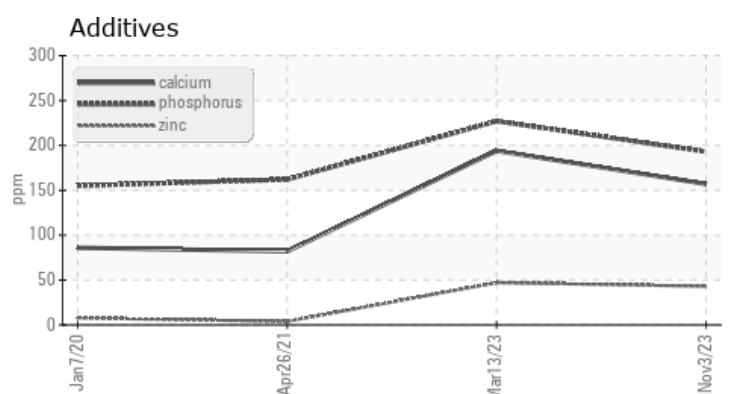
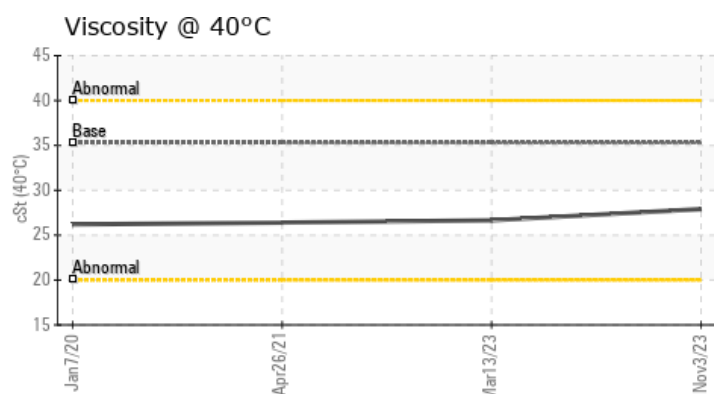
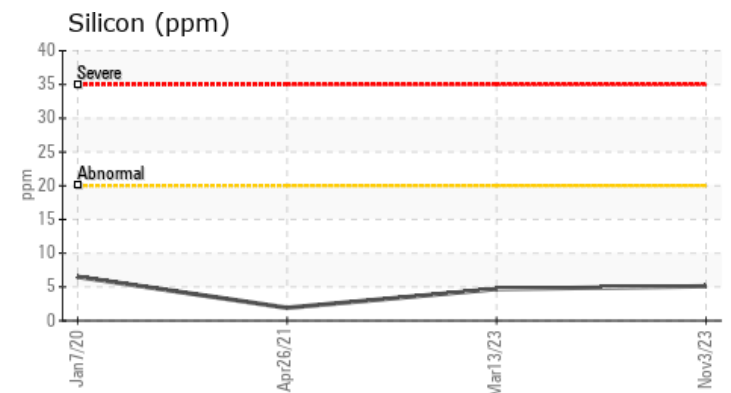
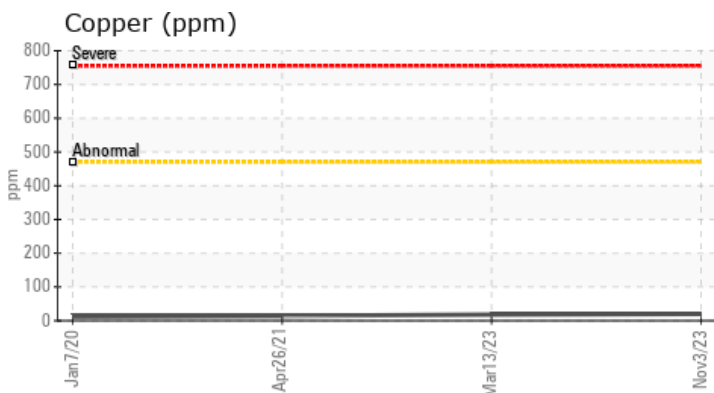
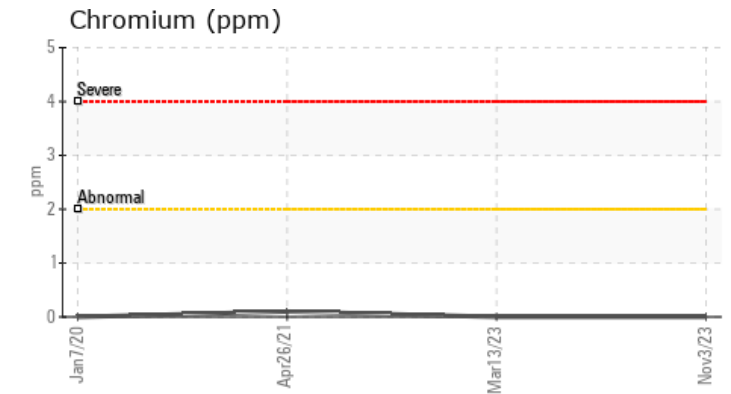
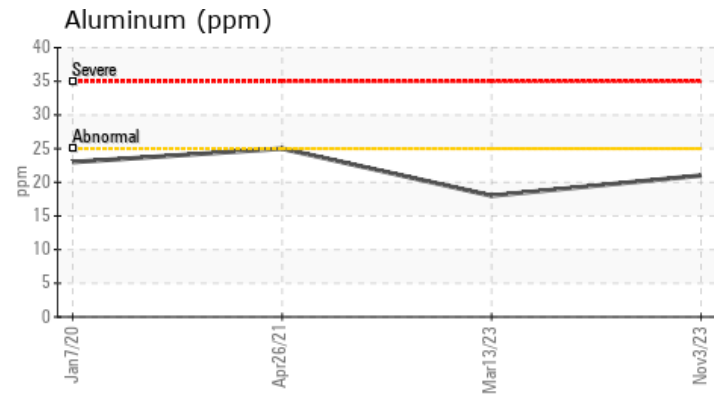
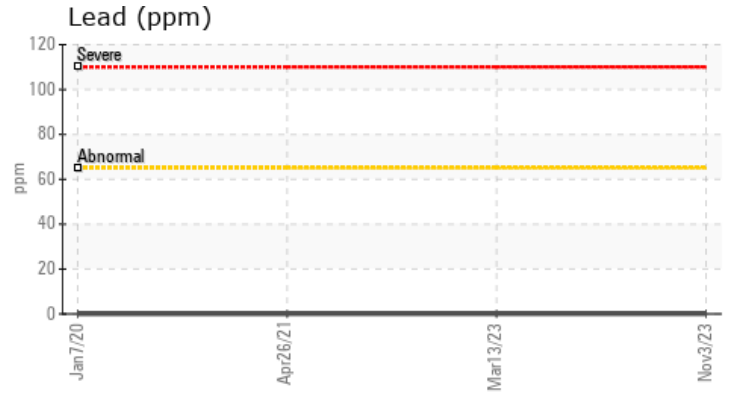
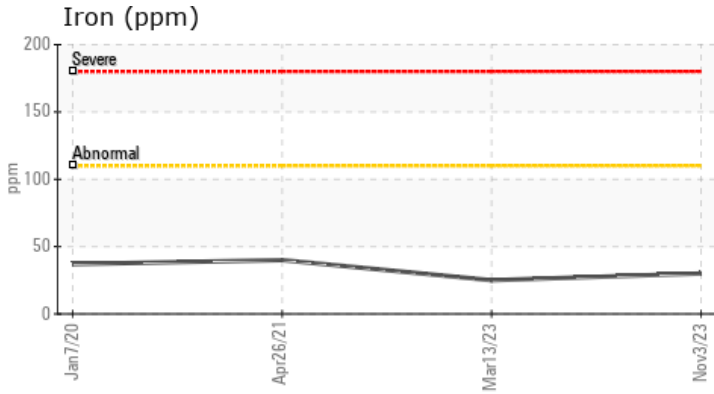
Depot: VOLVO0002
Unique No: 10728509
Signed: Sean Felton
Report Date: 08 Nov 2023



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CONSTRUCTION EQUIPMENT

W05003725-1 VOLVO A35G 340132 - DROP BOX



Sample No: VCP419857
Oil Type: {unknown}
Job No: W05003725-1



SAMPLE INFORMATION

Sample Number	VCP419857	VCP369381	---	---
Sample Date	11 Jul 2023	13 Mar 2023	---	---
Machine Hours	9625	9100	---	---
Oil Hours	0	500	---	---
Oil Changed	N/A	N/A	---	---
Sample Status	NORMAL	SEVERE	---	---

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OIL CONDITION

Visc @ 40°C	cSt	52.0	69.0	---	---
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CONTAMINATION

Water	%	NEG	5.20	---	---
Silicon	ppm	2	10	---	---
Sodium	ppm	2	4	---	---
Potassium	ppm	2	2	---	---

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 condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	225	93	---	---
Copper	ppm	2	2	---	---
Lead	ppm	0	<1	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	14	15	---	---
Chromium	ppm	2	2	---	---
Molybdenum	ppm	<1	5	---	---
Nickel	ppm	<1	<1	---	---
Titanium	ppm	0	<1	---	---
Silver	ppm	<1	<1	---	---
Manganese	ppm	7	2	---	---
Vanadium	ppm	0	<1	---	---



ADDITIVES

Calcium	ppm	115	660	---	---
Magnesium	ppm	5	20	---	---
Zinc	ppm	366	552	---	---
Phosphorus	ppm	2474	794	---	---
Barium	ppm	0	0	---	---
Boron	ppm	54	99	---	---

Depot: VOLVO0002
Unique No: 10559586
Signed: Jonathan Hester
Report Date: 17 Jul 2023



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