



CONSTRUCTION EQUIPMENT

1027787 CUSTOM LANDS VOLVO L350H 1103 - DIESEL ENGINE



Sample No: VCP437817
Oil Type: DIESEL ENGINE OIL SAE 40
Job No: 1027787 CUSTOM LANDS



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SAMPLE INFORMATION

Sample Number	VCP437817	VCP339137	---	---
Sample Date	06 May 2024	29 Oct 2021	---	---
Machine Hours	7020	4320	---	---
Oil Hours	0	0	---	---
Oil Changed	N/A	Not Changd	---	---
Sample Status	ABNORMAL	NORMAL	---	---



OIL CONDITION

Visc @ 100°C	cSt	█ 12.6	█ 13.3	---	---
Base Number (BN)	mg KOH/g	█ 9.1	---	---	---
Oxidation (PA)	%	81	78	---	---



CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	█ 0.5	█ 0.1	---	---
Nitration (PA)	%	61	43	---	---
Sulfation (PA)	%	61	63	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	▲ 39	█ 8	---	---
Sodium	ppm	█ 4	█ 2	---	---
Potassium	ppm	█ 6	█ 3	---	---



WEAR METALS

Iron	ppm	█ 42	█ 4	---	---
Copper	ppm	█ 9	█ 6	---	---
Lead	ppm	█ 2	█ <1	---	---
Tin	ppm	█ 4	█ <1	---	---
Aluminum	ppm	█ 4	█ 2	---	---
Chromium	ppm	█ <1	█ <1	---	---
Molybdenum	ppm	█ 42	█ 41	---	---
Nickel	ppm	█ 2	█ <1	---	---
Titanium	ppm	█ <1	█ 0	---	---
Silver	ppm	█ 0	<1	---	---
Manganese	ppm	█ 2	█ <1	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	█ 1694	█ 1689	---	---
Magnesium	ppm	█ 475	█ 507	---	---
Zinc	ppm	█ 1064	█ 1097	---	---
Phosphorus	ppm	█ 920	█ 976	---	---
Barium	ppm	█ <1	█ 0	---	---
Boron	ppm	█ 40	█ 81	---	---

Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal. 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.

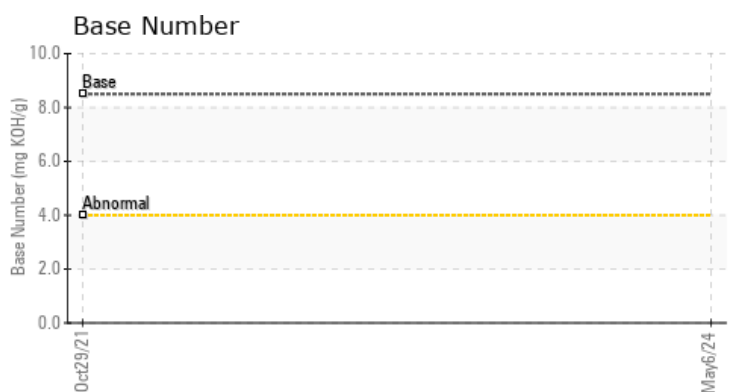
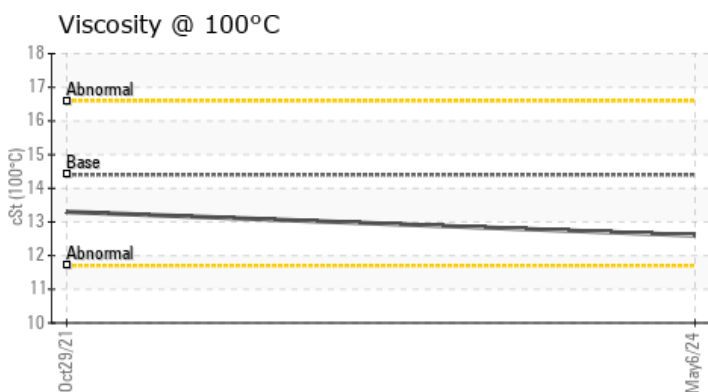
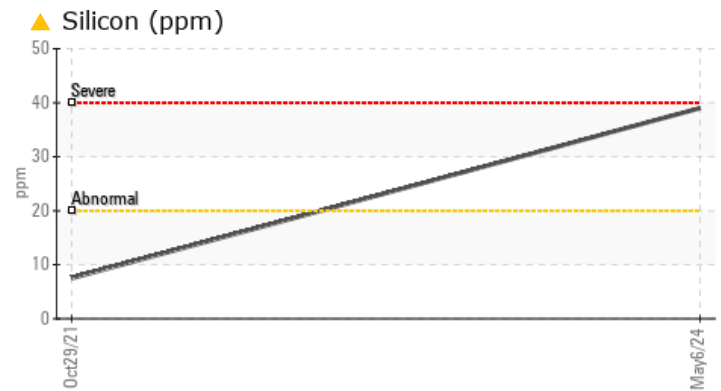
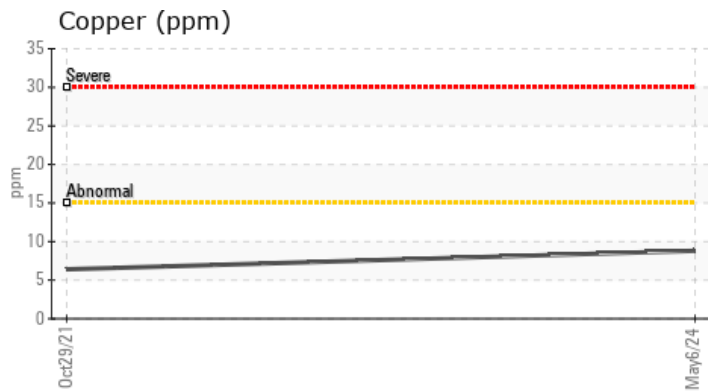
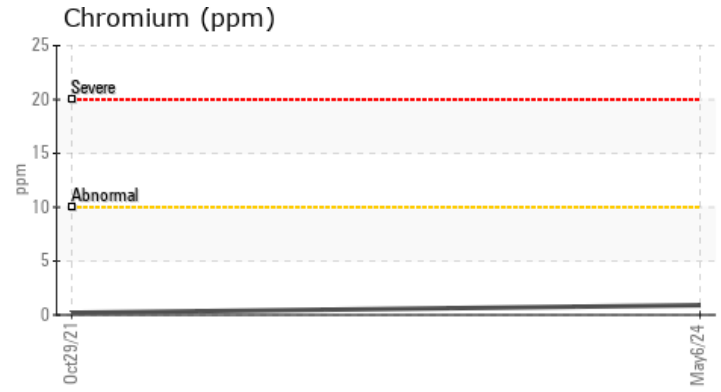
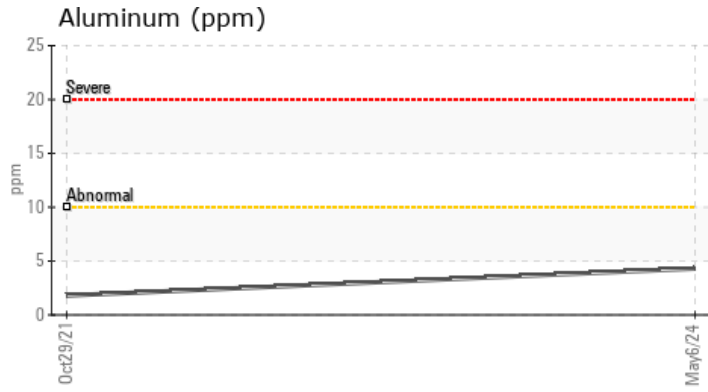
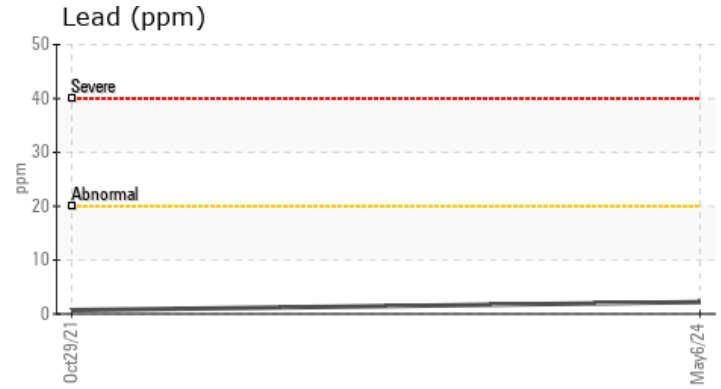
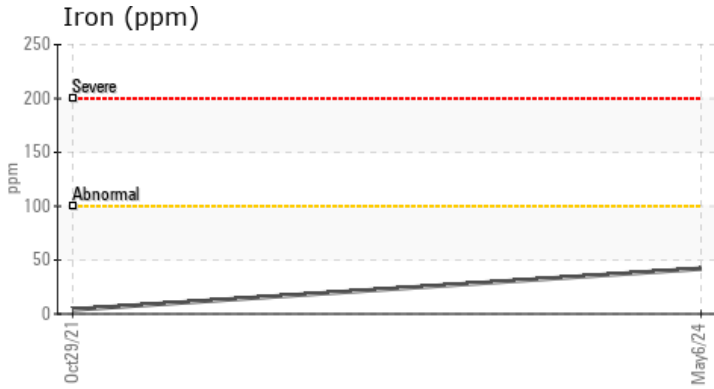
Depot: VOLVO6174
Unique No: 11021137
Signed: Don Baldrige
Report Date: 13 May 2024



CONSTRUCTION EQUIPMENT



GRAPHS





CONSTRUCTION EQUIPMENT

1027787 CUSTOM LS VOLVO L350H 1103 - TRANSMISSION (MANUAL)



Sample No: VCP437999
Oil Type: ATF
Job No: 1027787 CUSTOM LS



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SAMPLE INFORMATION

Sample Number	VCP437999	VCP337810	VCP339435	---
Sample Date	02 May 2024	29 Sep 2022	29 Oct 2021	---
Machine Hours	7020	5529	4320	---
Oil Hours	0	0	0	---
Oil Changed	Changed	Not Changd	Not Changd	---
Sample Status	NORMAL	NORMAL	NORMAL	---



OIL CONDITION

Visc @ 40°C	cSt	123	84.1	83.5	---
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CONTAMINATION

Water	%	NEG	NEG	NEG	---
Silicon	ppm	11	15	6	---
Sodium	ppm	3	3	3	---
Potassium	ppm	<1	0	0	---



WEAR METALS

Iron	ppm	3	50	22	---
Copper	ppm	<1	37	26	---
Lead	ppm	<1	2	<1	---
Tin	ppm	0	1	<1	---
Aluminum	ppm	2	<1	1	---
Chromium	ppm	0	<1	<1	---
Molybdenum	ppm	33	15	1	---
Nickel	ppm	0	<1	0	---
Titanium	ppm	0	<1	<1	---
Silver	ppm	0	0	<1	---
Manganese	ppm	<1	1	<1	---
Vanadium	ppm	0	<1	0	---



ADDITIVES

Calcium	ppm	2248	2814	3064	---
Magnesium	ppm	344	37	13	---
Zinc	ppm	1185	1157	1124	---
Phosphorus	ppm	1028	1040	1037	---
Barium	ppm	0	0	0	---
Boron	ppm	79	37	23	---

Diagnosis

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.

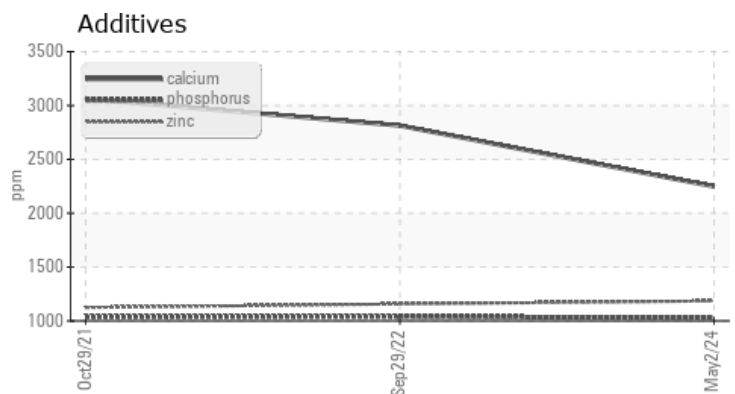
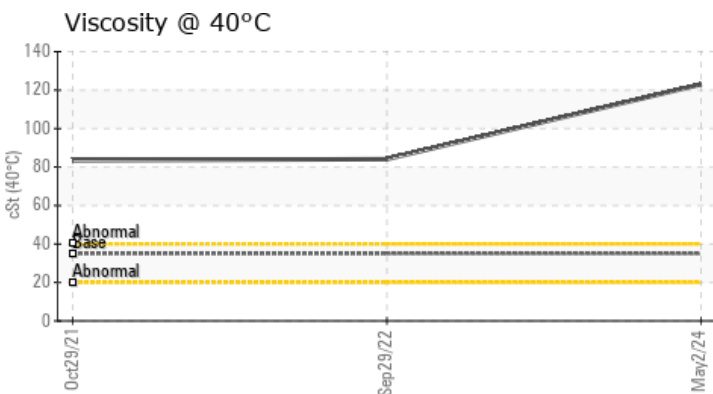
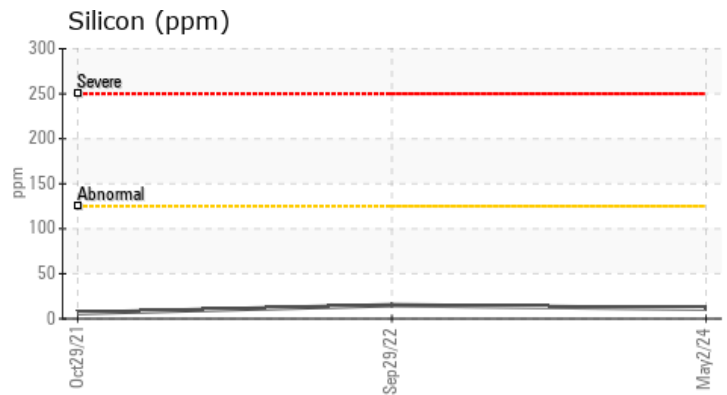
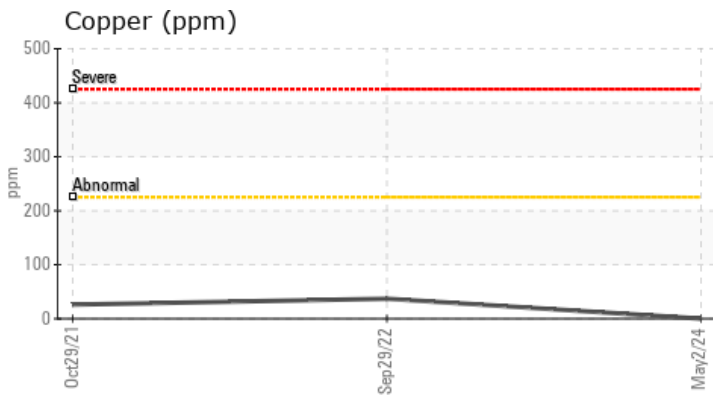
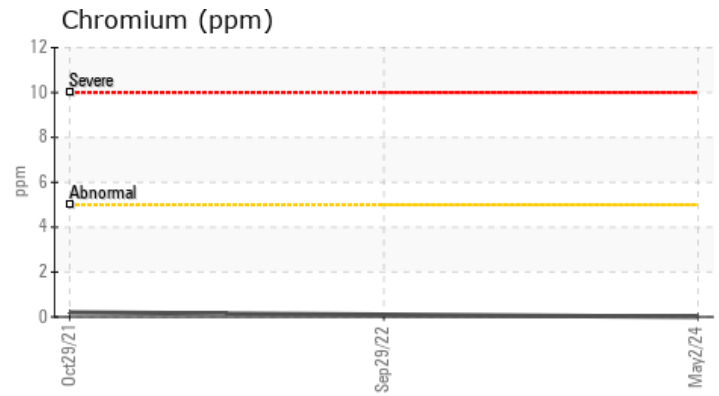
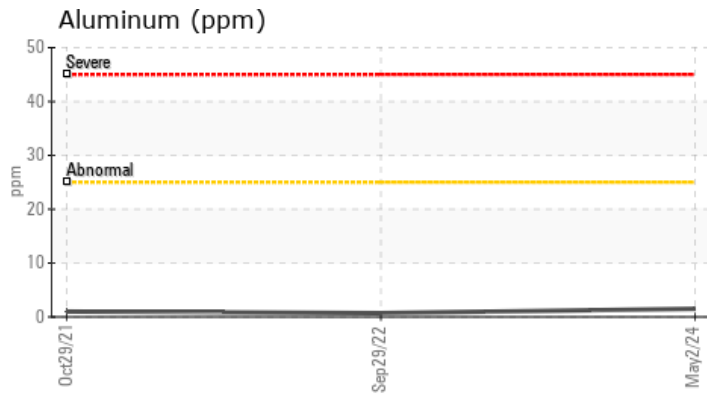
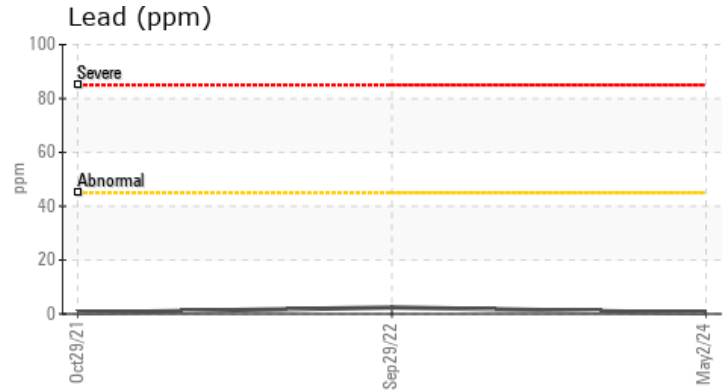
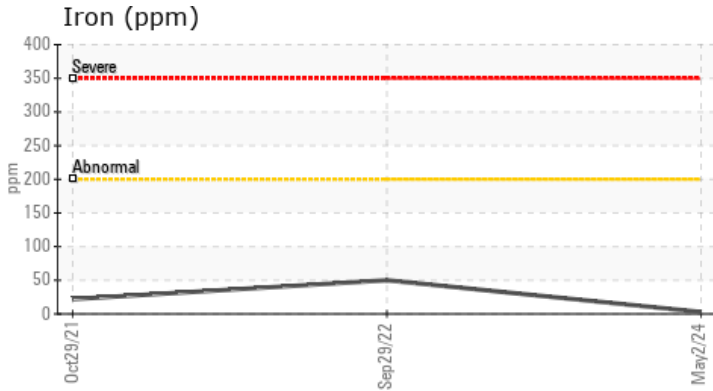
Depot: VOLVO6174
Unique No: 11022026
Signed: Sean Felton
Report Date: 14 May 2024



CONSTRUCTION EQUIPMENT



GRAPHS





CONSTRUCTION EQUIPMENT

GD7284 VOLVO L350H 1103 - HYDRAULIC SYSTEM



Sample No: VCP339136
Oil Type: AW HYDRAULIC OIL ISO 46
Job No: GD7284



SAMPLE INFORMATION

Sample Number	VCP339136	---	---	---
Sample Date	29 Oct 2021	---	---	---
Machine Hours	4320	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

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OIL CONDITION

Visc @ 40°C	cSt	█ 43.1	---	---	---
Acid Number (AN)	mg KOH/g	█ 0.572	---	---	---



CONTAMINATION

Water	%	NEG	---	---	---
Particles >4µm		█ 8557	---	---	---
Particles >6µm		█ 542	---	---	---
Particles >14µm		█ 39	---	---	---
ISO 4406:1999 (c)		20/16/12	---	---	---
Silicon	ppm	█ 8	---	---	---
Sodium	ppm	█ 0	---	---	---
Potassium	ppm	█ <1	---	---	---

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 amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



WEAR METALS

Iron	ppm	█ 6	---	---	---
Copper	ppm	█ 2	---	---	---
Lead	ppm	█ 1	---	---	---
Tin	ppm	█ <1	---	---	---
Aluminum	ppm	█ 0	---	---	---
Chromium	ppm	█ <1	---	---	---
Molybdenum	ppm	█ 2	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	█ <1	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	█ 1535	---	---	---
Magnesium	ppm	█ 24	---	---	---
Zinc	ppm	█ 831	---	---	---
Phosphorus	ppm	█ 684	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 39	---	---	---

Depot: VOLVO6174
Unique No: 9733581
Signed: Don Baldrige
Report Date: 09 Nov 2021

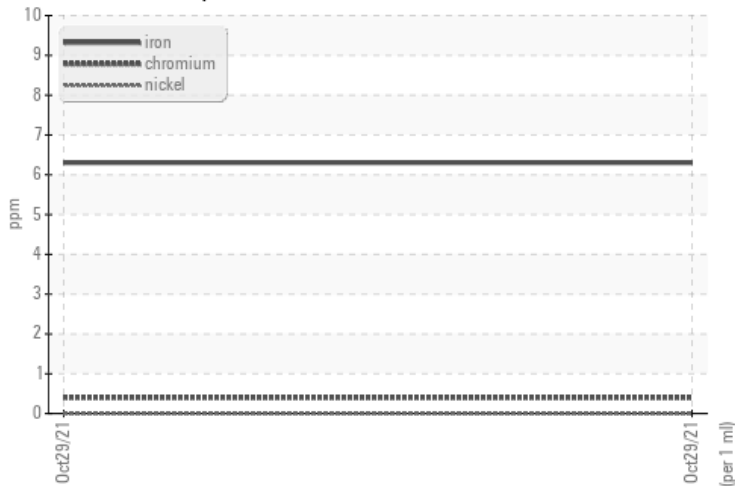


CONSTRUCTION EQUIPMENT

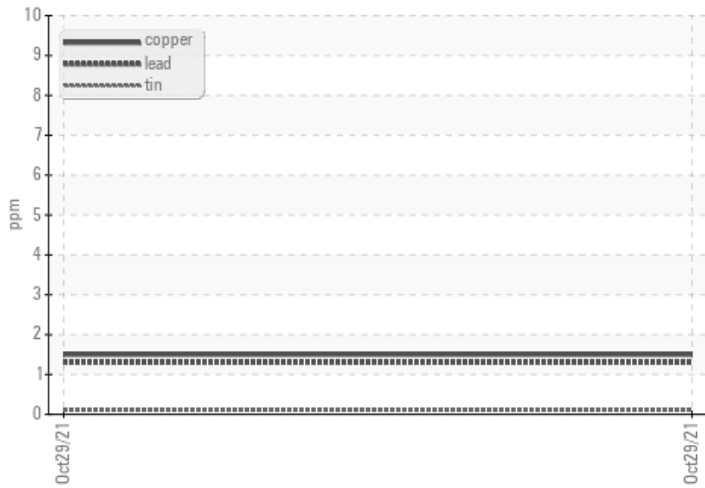


GRAPHS

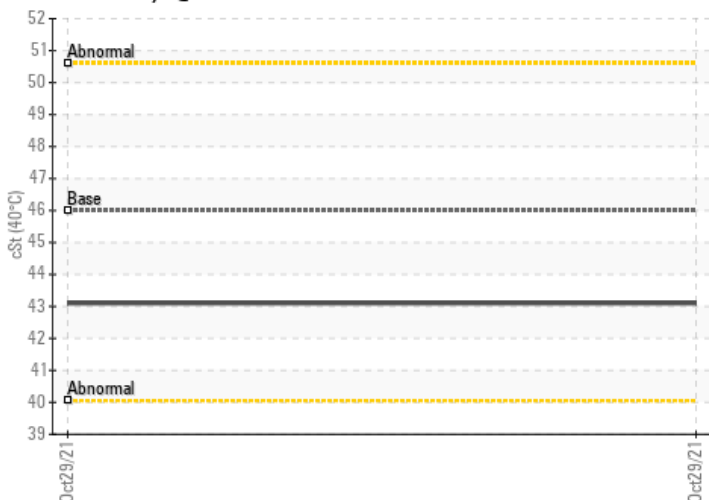
Ferrous Alloys



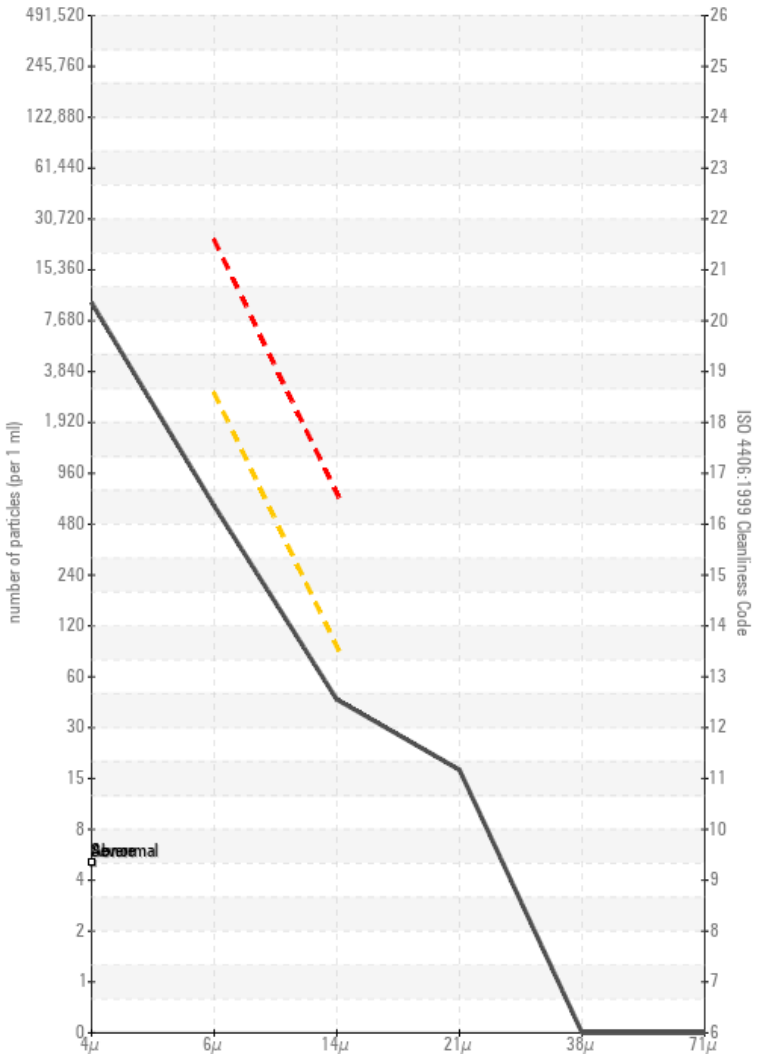
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number





CONSTRUCTION EQUIPMENT

1027787 CUSTOM LS VOLVO L350H 1103 - FRONT AXLE



Sample No: VCP437816
Oil Type: VOLVO WB 102
Job No: 1027787 CUSTOM LS



SAMPLE INFORMATION

Sample Number	VCP437816	VCP05394907	---	---
Sample Date	06 May 2024	29 Oct 2021	---	---
Machine Hours	7020	4320	---	---
Oil Hours	0	0	---	---
Oil Changed	N/A	Not Changd	---	---
Sample Status	ABNORMAL	NORMAL	---	---

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OIL CONDITION

Visc @ 40°C	cSt	42.3	42.9	---	---
-------------	-----	-------------	------	-----	-----



CONTAMINATION

Water	%	NEG	NEG	---	---
Silicon	ppm	30	13	---	---
Sodium	ppm	4	6	---	---
Potassium	ppm	3	0	---	---

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	440	58	---	---
Copper	ppm	26	9	---	---
Lead	ppm	1	<1	---	---
Tin	ppm	3	<1	---	---
Aluminum	ppm	2	<1	---	---
Chromium	ppm	4	<1	---	---
Molybdenum	ppm	8	6	---	---
Nickel	ppm	<1	0	---	---
Titanium	ppm	1	<1	---	---
Silver	ppm	0	<1	---	---
Manganese	ppm	7	1	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

Calcium	ppm	4784	3537	---	---
Magnesium	ppm	51	30	---	---
Zinc	ppm	1735	1448	---	---
Phosphorus	ppm	1320	1272	---	---
Barium	ppm	2	0	---	---
Boron	ppm	185	132	---	---

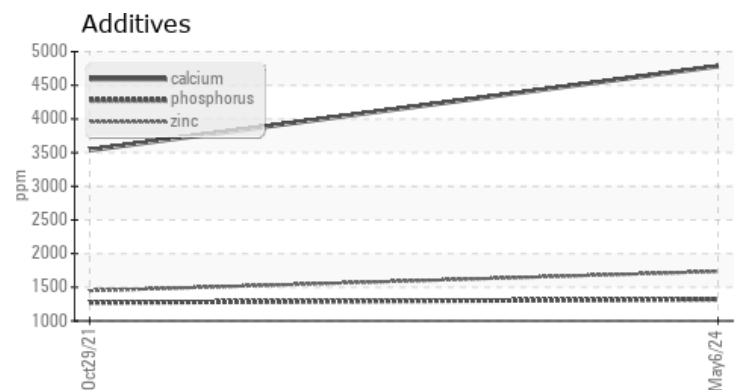
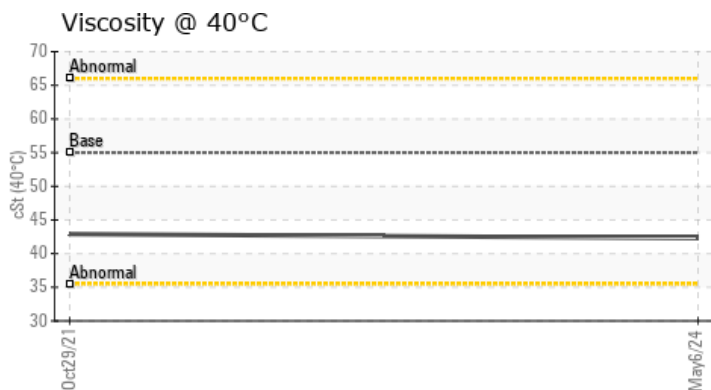
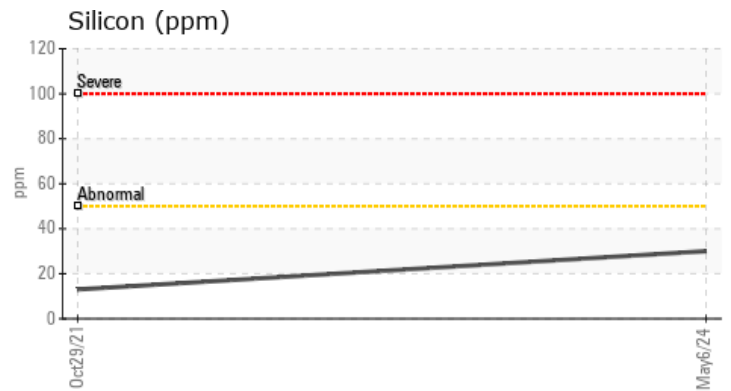
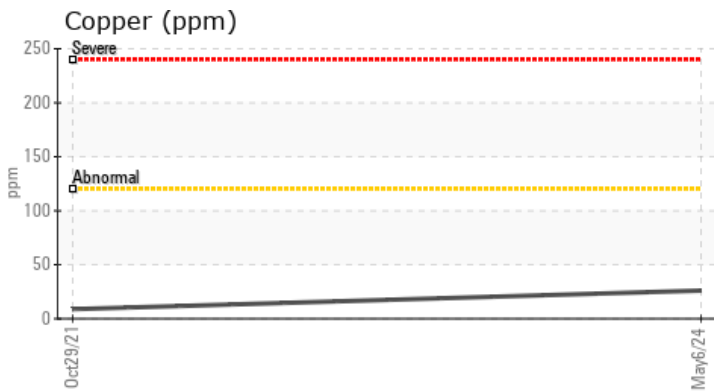
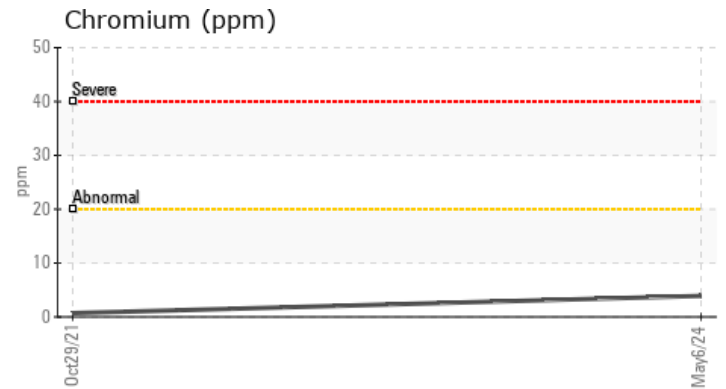
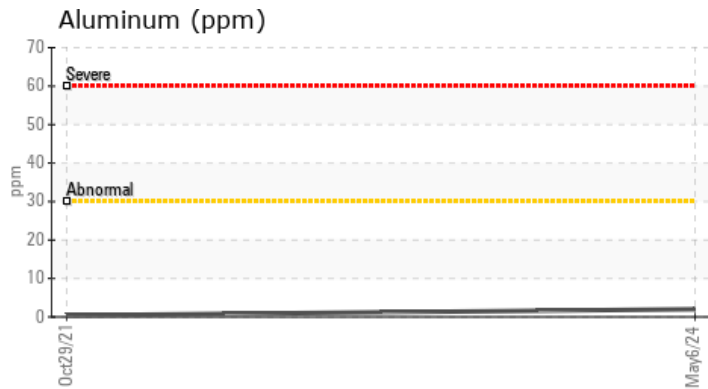
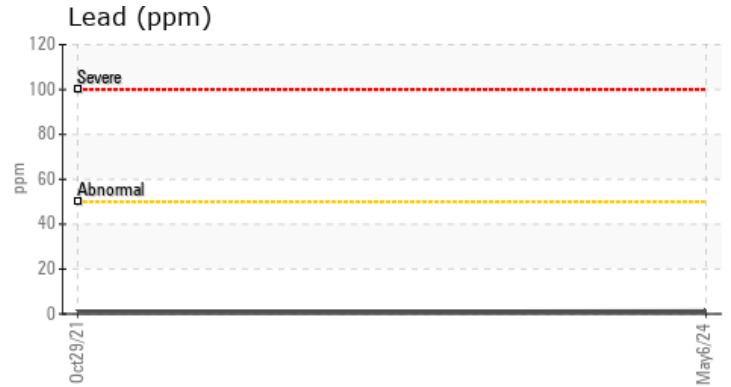
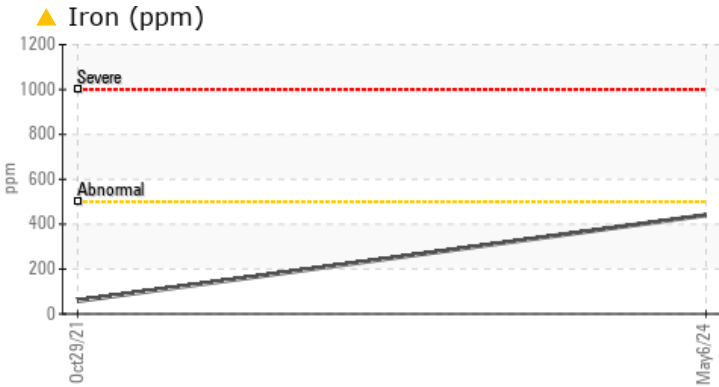
Depot: VOLVO6174
Unique No: 11021934
Signed: Sean Felton
Report Date: 14 May 2024



CONSTRUCTION EQUIPMENT



GRAPHS





CONSTRUCTION EQUIPMENT

1027787 CUSTOM LS VOLVO L350H 1103 - REAR AXLE



Sample No: VCP437818
Oil Type: VOLVO WB 102
Job No: 1027787 CUSTOM LS



SAMPLE INFORMATION

Sample Number	VCP437818	VCP339436	---	---
Sample Date	06 May 2024	29 Oct 2021	---	---
Machine Hours	7020	4320	---	---
Oil Hours	0	0	---	---
Oil Changed	N/A	Not Changd	---	---
Sample Status	NORMAL	NORMAL	---	---

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OIL CONDITION

Visc @ 40°C	cSt	69.8	40.4	---	---
-------------	-----	-------------	------	-----	-----



CONTAMINATION

Water	%	NEG	NEG	---	---
Silicon	ppm	15	10	---	---
Sodium	ppm	<1	5	---	---
Potassium	ppm	2	0	---	---

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	96	39	---	---
Copper	ppm	2	4	---	---
Lead	ppm	<1	<1	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	2	<1	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	21	5	---	---
Nickel	ppm	<1	0	---	---
Titanium	ppm	11	<1	---	---
Silver	ppm	0	<1	---	---
Manganese	ppm	2	1	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

Calcium	ppm	2458	3199	---	---
Magnesium	ppm	208	29	---	---
Zinc	ppm	1285	1405	---	---
Phosphorus	ppm	1094	1251	---	---
Barium	ppm	2	0	---	---
Boron	ppm	77	119	---	---

Depot: VOLVO6174
Unique No: 11021933
Signed: Sean Felton
Report Date: 14 May 2024



CONSTRUCTION EQUIPMENT



GRAPHS

