



CONSTRUCTION EQUIPMENT

RECYCLE AMERICA VOLVO L60H 622532 - COOLANT



Sample No: VCP364336
Oil Type: VOLVO COOLANT VCS (YELLOW)
Job No: RECYCLE AMERICA



SAMPLE INFORMATION

Sample Number	VCP364336	---	---	---
Sample Date	30 Aug 2022	---	---	---
Machine Hours	5793	---	---	---
Sample Status	NORMAL	---	---	---

WASTE MANAGEMENT TAMPA TRANSFER
 3518 4TH AVE
 TAMPA, FL
 US 33605
 Contact: JOHN POLLOCK
 jpollock2@wm.com
 T: (813)247-7397
 F: (813)247-4847



COOLANT CONDITION

pH	Scale 0-14	■ 7.18	---	---	---
Reserve Alkalinity	Scale 0-20	---	---	---	---
Nitrites	ppm	■ 0	---	---	---
Percentage Glycol	%	■ 45.4	---	---	---
Freezing Point	°C	■ -24	---	---	---

Diagnosis

No corrective action is recommended at this time. The fluid is suitable for further service. There is no indication of any contamination in the coolant. Carboxylate test failed. The glycol level is acceptable. The pH level of this fluid is within the acceptable limits.



CONTAMINATION

Coolant Appearance	normal	---	---	---
Coolant Color	Yllow	---	---	---

Depot: WASTAM
Unique No: 10144144
Signed: Doug Bogart
Report Date: 29 Sep 2022



CONSTRUCTION EQUIPMENT

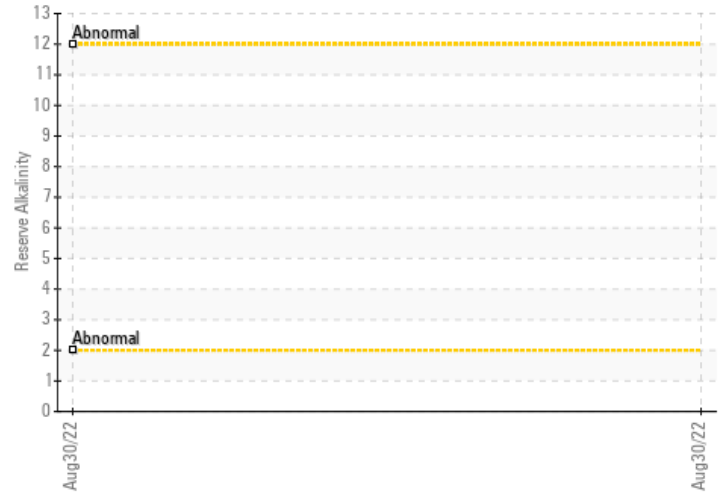


GRAPHS

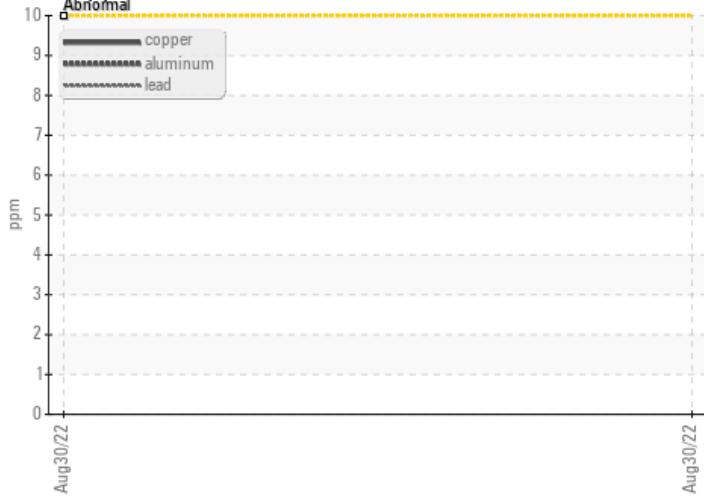
Iron/Tin/Silver



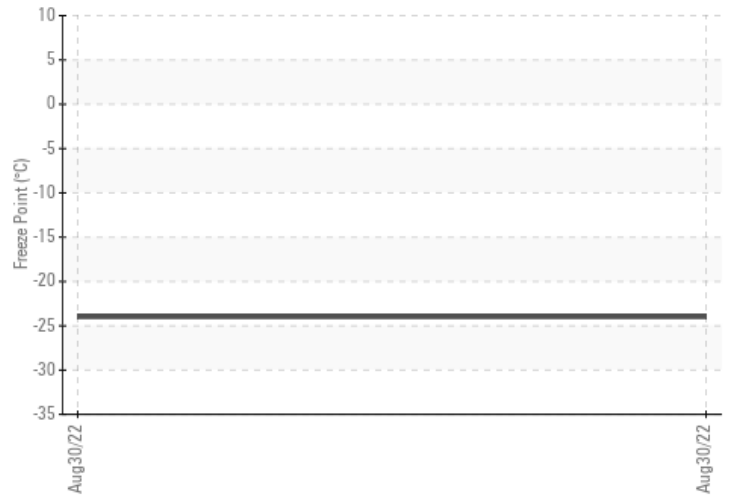
Reserve Alkalinity



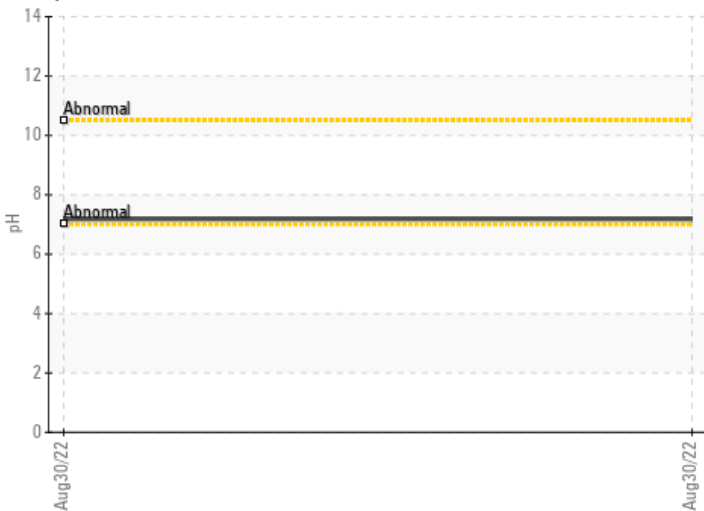
Copper/Aluminum/Lead



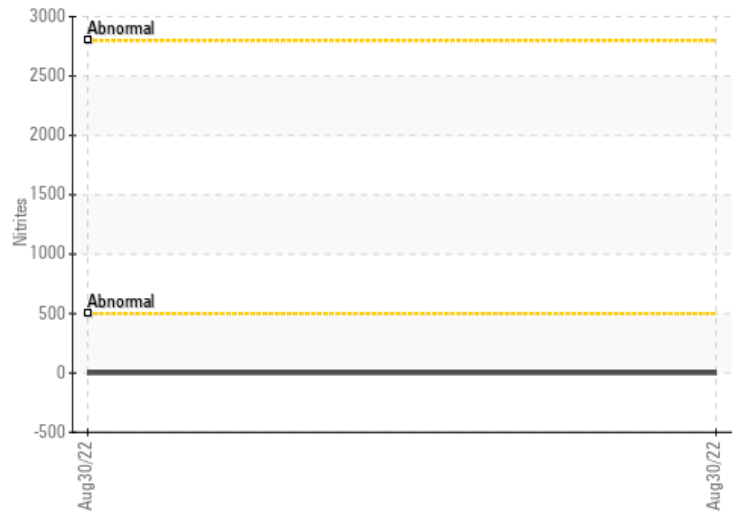
Freeze Point



pH



Nitrites





CONSTRUCTION EQUIPMENT

VOLVO L60H 622532 - DIESEL ENGINE



Sample No: VCP443028
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP443028	VCP441641	VCP432169	VCP433332
Sample Date	10 Jun 2024	14 Feb 2024	14 Dec 2023	11 Oct 2023
Machine Hours	11558	10530	9859	9385
Oil Hours	0	500	0	2000
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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 TAMPA, FL
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 jpollock2@wm.com
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OIL CONDITION

Visc @ 100°C	cSt	12.8	13.4	12.9	13.3
Base Number (BN)	mg KOH/g	9.8	9.8	11.1	7.1
Oxidation (PA)	%	76	78	76	86

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	0.1	0.9
Nitration (PA)	%	58	65	39	88
Sulfation (PA)	%	60	58	60	63
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	9	8	8	16
Sodium	ppm	0	<1	<1	4
Potassium	ppm	1	0	2	0



WEAR METALS

Iron	ppm	6	6	1	24
Copper	ppm	<1	0	<1	2
Lead	ppm	0	0	<1	<1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	3	6	1	9
Chromium	ppm	<1	<1	0	2
Molybdenum	ppm	56	40	35	48
Nickel	ppm	<1	0	<1	<1
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	0	1
Vanadium	ppm	0	0	<1	<1



ADDITIVES

Calcium	ppm	1533	1585	1494	1742
Magnesium	ppm	505	499	440	489
Zinc	ppm	1067	1080	967	1105
Phosphorus	ppm	834	950	846	901
Barium	ppm	0	0	0	0
Boron	ppm	31	25	64	15

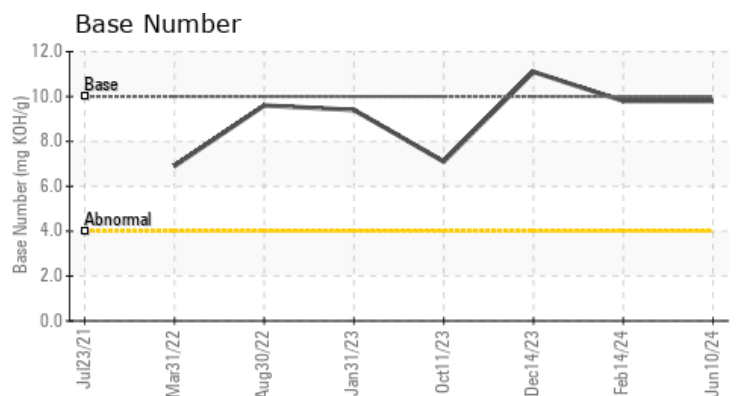
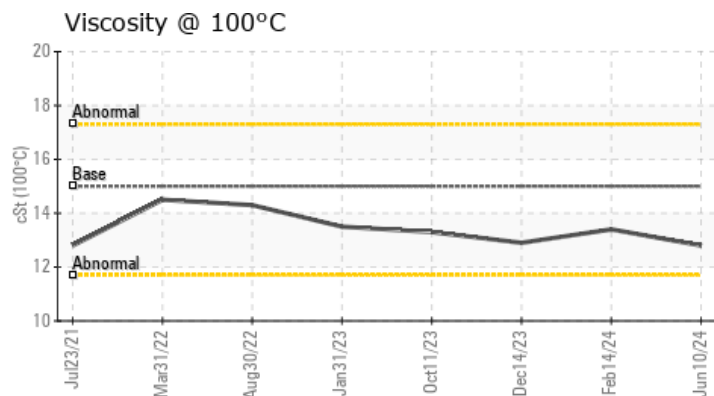
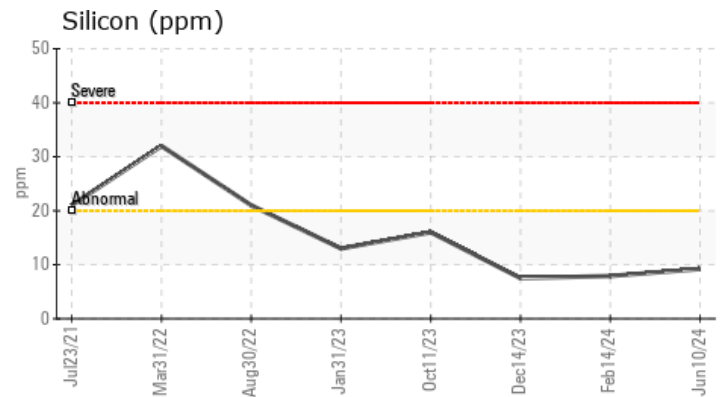
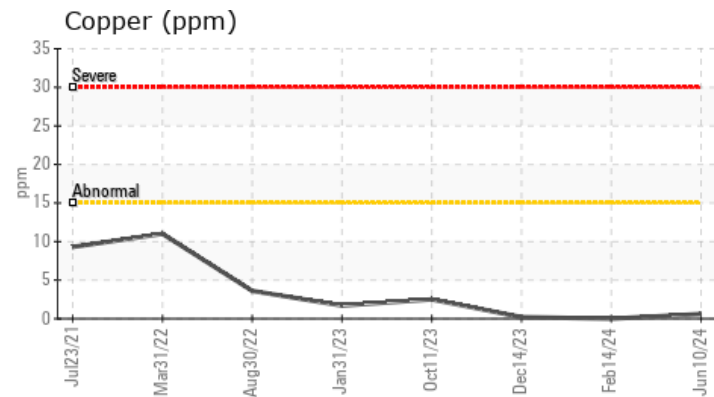
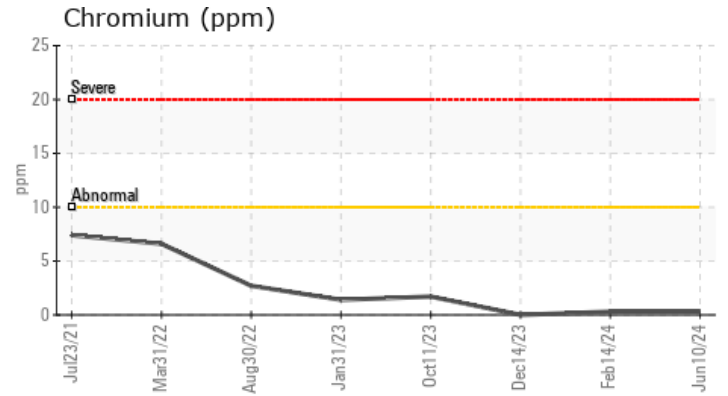
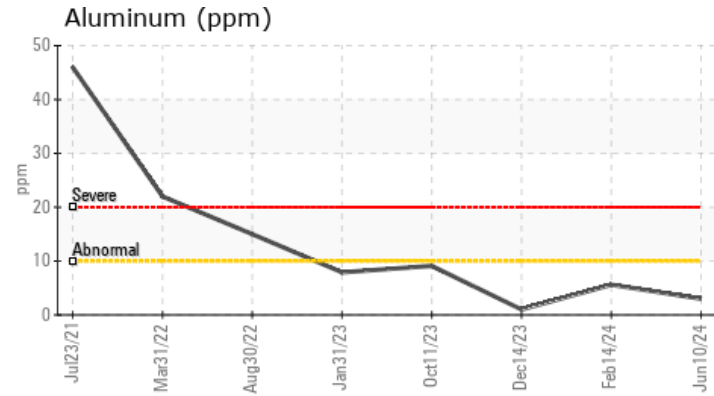
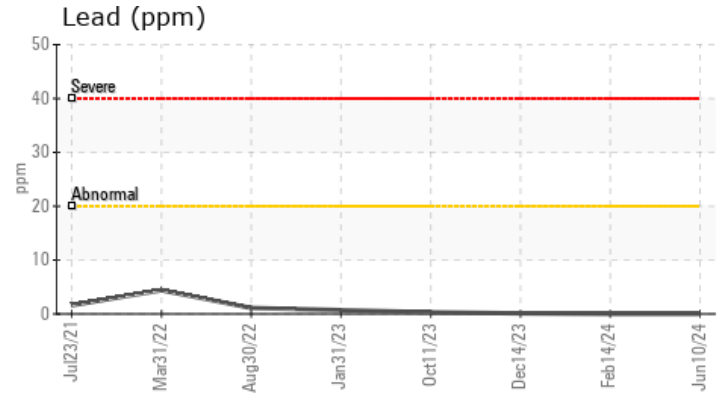
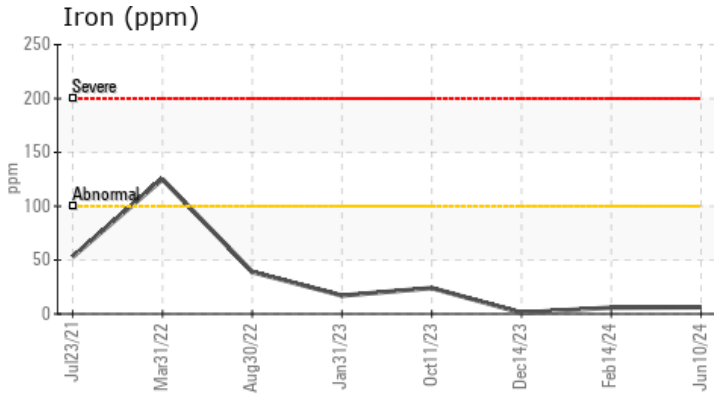
Depot: WASTAM
Unique No: 11077129
Signed: Don Baldrige
Report Date: 17 Jun 2024



CONSTRUCTION EQUIPMENT



GRAPHS





CONSTRUCTION EQUIPMENT

527681 VOLVO L60H 622532 - TRANSMISSION (AUTO)



Sample No: VCP437944
Oil Type: VOLVO AT 102
Job No: 527681



SAMPLE INFORMATION

Sample Number	VCP437944	VCP452097	VCP432168	VCP433331
Sample Date	05 Apr 2024	14 Feb 2024	14 Dec 2023	11 Oct 2023
Machine Hours	11071	10530	9859	9385
Oil Hours	1000	2000	0	9385
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL

WASTE MANAGEMENT TAMPA TRANSFER
 3518 4TH AVE
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 US 33605
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OIL CONDITION

Visc @ 40°C	cSt	30.4	27.1	27.1	27.3
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CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	10	10	10	9
Sodium	ppm	11	12	4	11
Potassium	ppm	4	1	0	3

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. The iron level is abnormal. All other 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.



WEAR METALS

Iron	ppm	257	236	210	199
Copper	ppm	23	21	13	18
Lead	ppm	1	0	0	0
Tin	ppm	<1	0	0	0
Aluminum	ppm	1	1	1	1
Chromium	ppm	1	<1	<1	<1
Molybdenum	ppm	1	0	0	0
Nickel	ppm	1	<1	0	<1
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	10	9	10	9
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	77	67	63	79
Magnesium	ppm	3	0	0	0
Zinc	ppm	47	26	17	38
Phosphorus	ppm	195	195	180	145
Barium	ppm	0	0	0	0
Boron	ppm	63	55	55	56

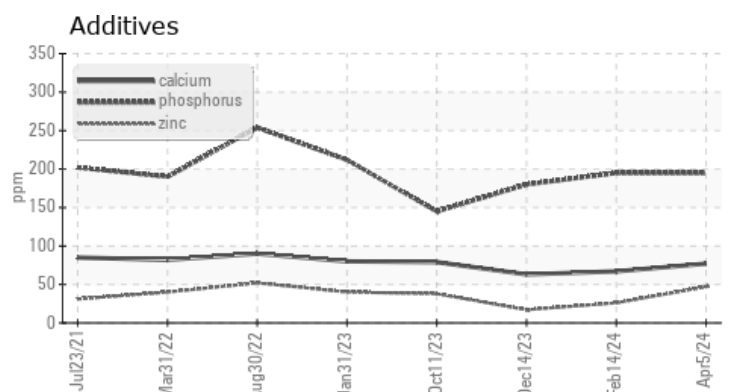
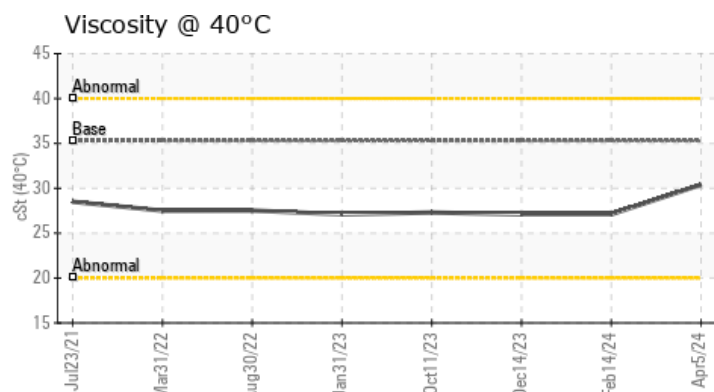
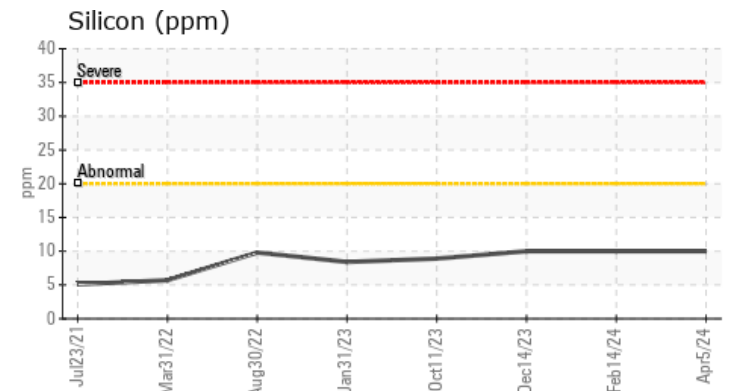
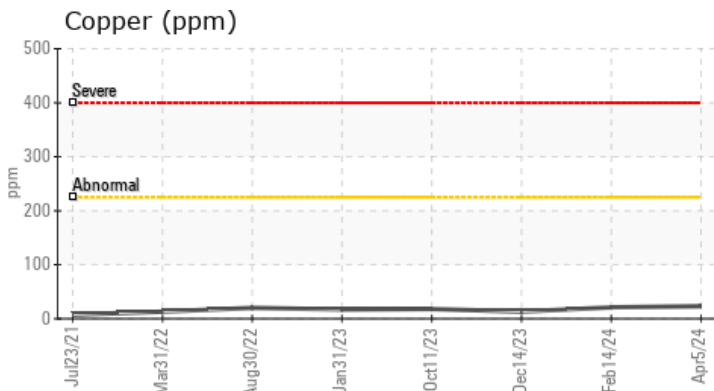
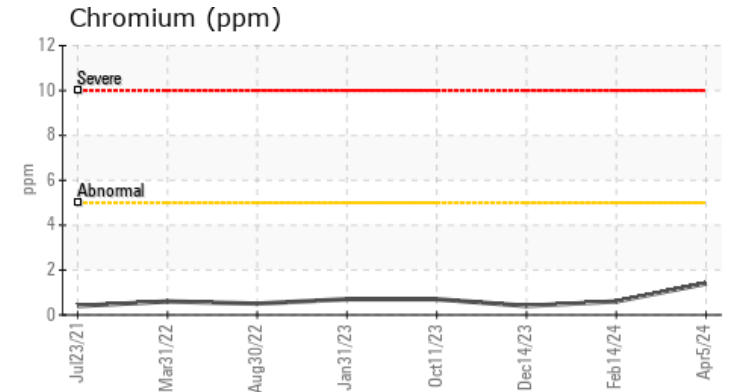
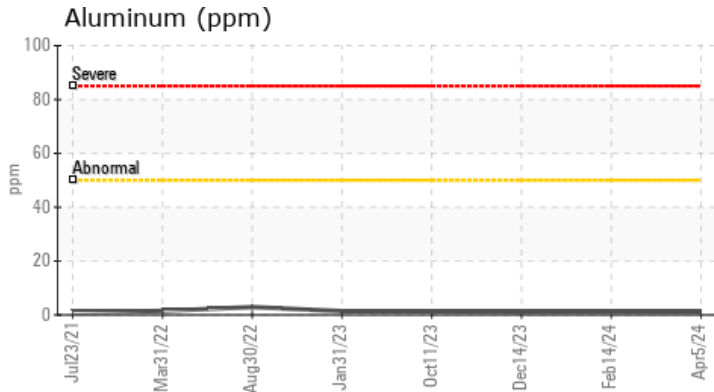
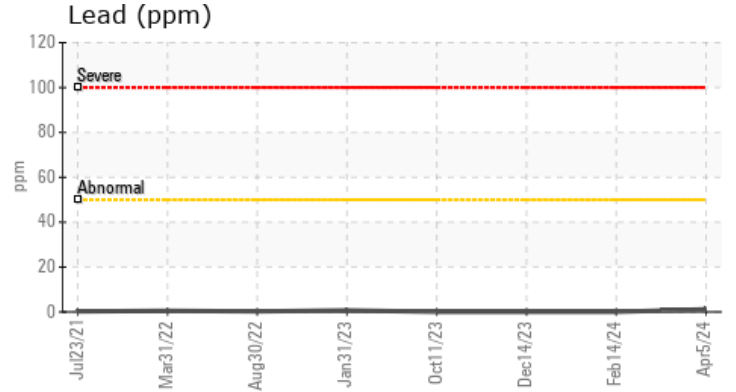
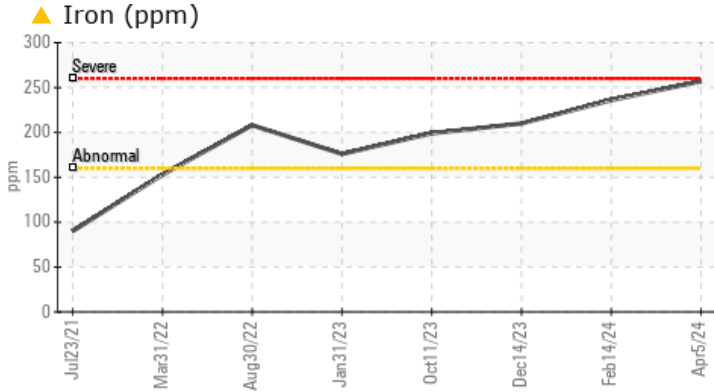
Depot: WASTAM
Unique No: 11019094
Signed: Sean Felton
Report Date: 10 May 2024



CONSTRUCTION EQUIPMENT



VOLVO GRAPHS





CONSTRUCTION EQUIPMENT

VOLVO L60H 622532 - HYDRAULIC SYSTEM



Sample No: VCP445588
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No:



SAMPLE INFORMATION

Sample Number	VCP445588	VCP452263	VCP433333	VCP395743
Sample Date	10 Jun 2024	14 Feb 2024	11 Oct 2023	31 Jan 2023
Machine Hours	11558	10530	9385	7204
Oil Hours	0	2000	9385	7204
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	ABNORMAL	NORMAL	NORMAL	ABNORMAL

WASTE MANAGEMENT TAMPA TRANSFER
 3518 4TH AVE
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 US 33605
 Contact: JOHN POLLOCK
 jpollock2@wm.com
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OIL CONDITION

Visc @ 40°C	cSt	41.0	40.8	40.7	41.0
Acid Number (AN)	mg KOH/g	0.49	0.41	0.41	0.32



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		15035	2550	2405	25549
Particles >6µm		4049	560	652	8810
Particles >14µm		355	30	56	737
ISO 4406:1999 (c)		21/19/16	19/16/12	18/17/13	22/20/17
Silicon	ppm	5	5	4	4
Sodium	ppm	6	8	6	4
Potassium	ppm	2	0	<1	0

Diagnosis

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



WEAR METALS

Iron	ppm	10	9	9	8
Copper	ppm	2	3	3	3
Lead	ppm	<1	2	<1	1
Tin	ppm	0	<1	0	<1
Aluminum	ppm	<1	0	<1	0
Chromium	ppm	2	2	2	<1
Molybdenum	ppm	<1	<1	<1	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	0	<1	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	0
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	224	160	54	66
Magnesium	ppm	3	0	0	3
Zinc	ppm	517	381	409	397
Phosphorus	ppm	385	349	313	319
Barium	ppm	0	0	0	0
Boron	ppm	0	2	0	0

Depot: WASTAM
Unique No: 11082870
Signed: Wes Davis
Report Date: 17 Jun 2024

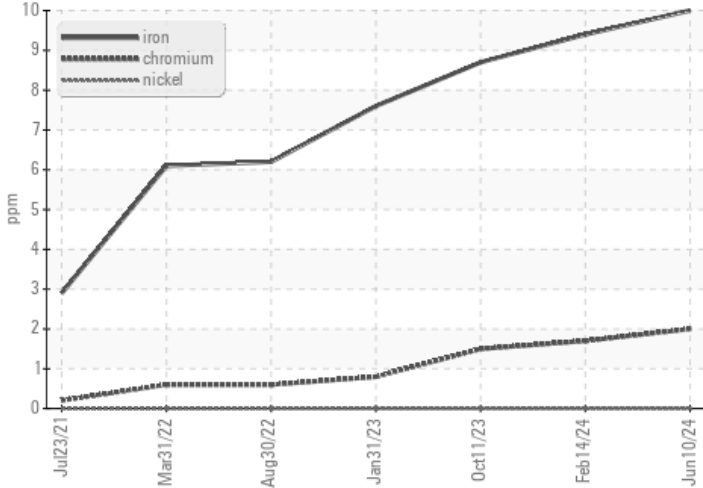


CONSTRUCTION EQUIPMENT

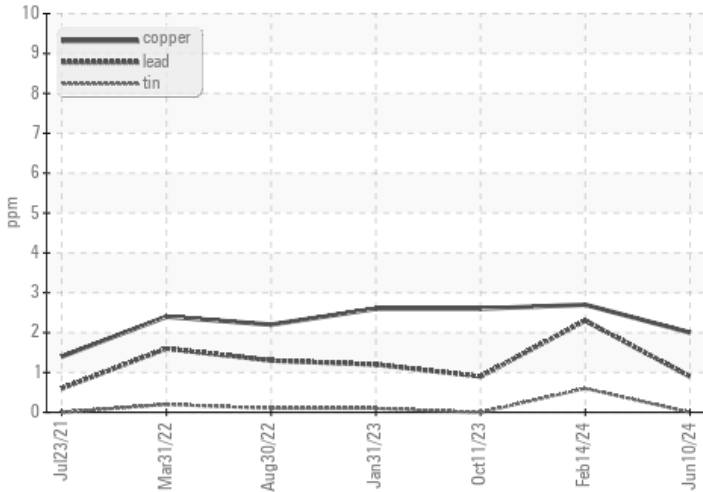


VOLVO GRAPHS

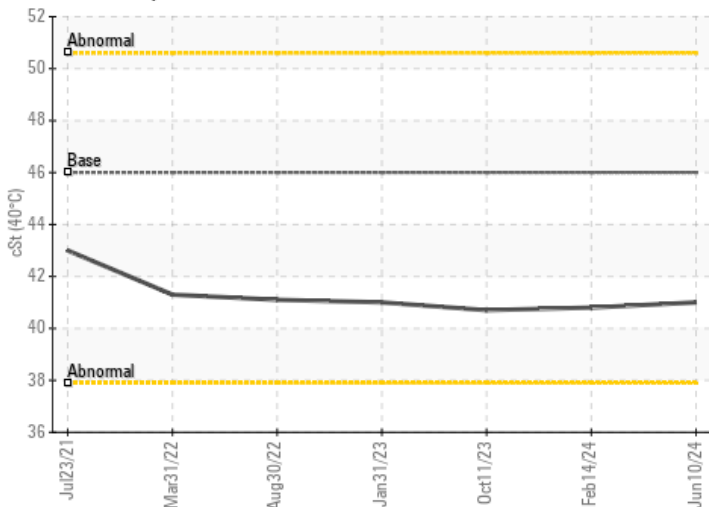
Ferrous Alloys



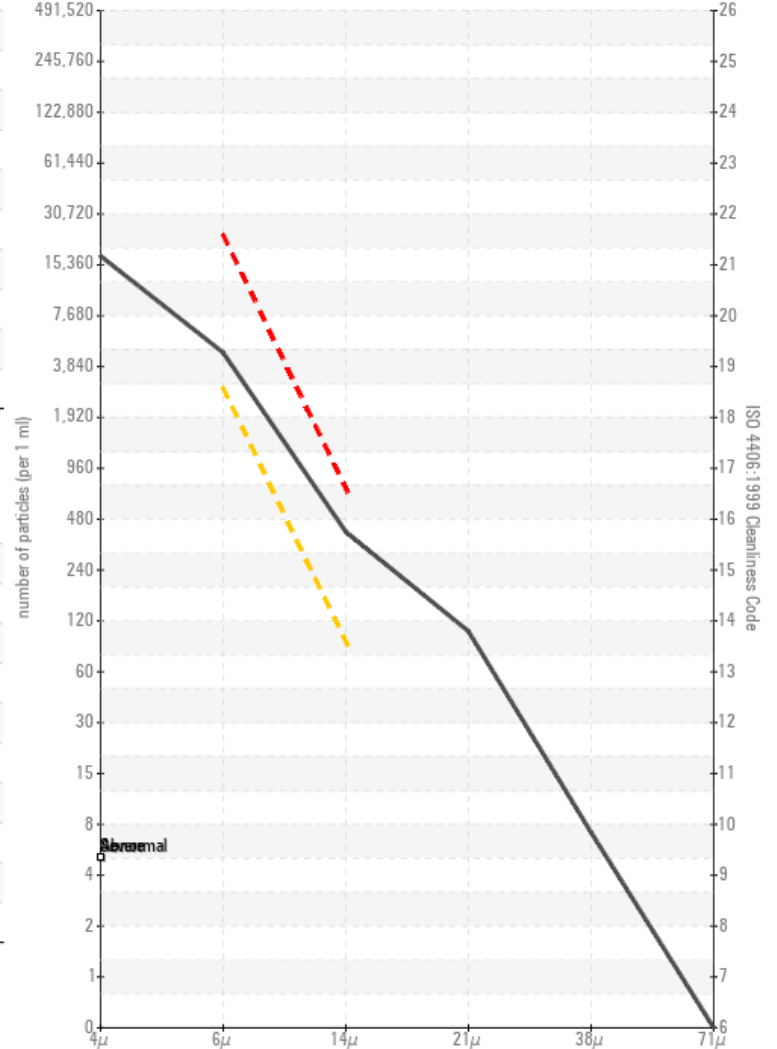
Non-ferrous Metals



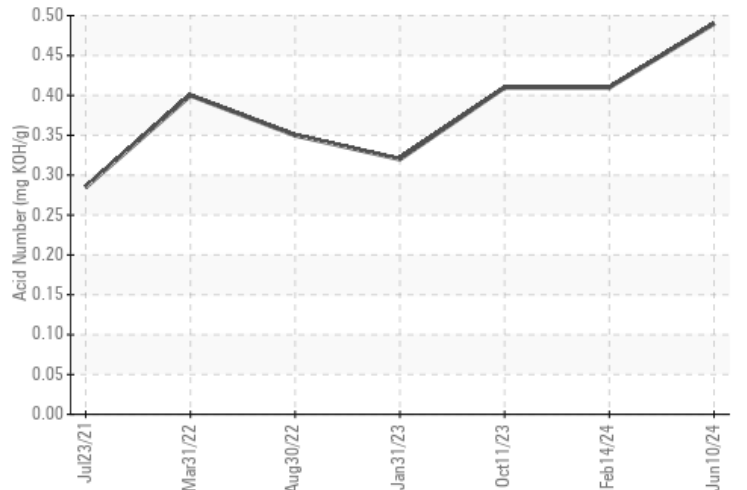
Viscosity @ 40°C



Particle Count



Acid Number





CONSTRUCTION EQUIPMENT

527681 WASTE MGMT VOLVO L60H 622532 - FRONT AXLE



Sample No: VCP446349
Oil Type: VOLVO WB 102
Job No: 527681 WASTE MGMT



SAMPLE INFORMATION

Sample Number	VCP446349	VCP442540	VCP433330	VCP395971
Sample Date	05 Apr 2024	14 Feb 2024	11 Oct 2023	31 Jan 2023
Machine Hours	11071	10530	9385	7204
Oil Hours	2000	2000	4000	1000
Oil Changed	Changed	Changed	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

WASTE MANAGEMENT TAMPA TRANSFER
 3518 4TH AVE
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 jpollock2@wm.com
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OIL CONDITION

Visc @ 40°C	cSt	40.8	40.3	39.8	40.2
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CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	13	15	15	15
Sodium	ppm	0	11	11	12
Potassium	ppm	0	0	1	<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 condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	17	228	187	204
Copper	ppm	0	2	2	3
Lead	ppm	0	0	0	<1
Tin	ppm	<1	0	0	<1
Aluminum	ppm	1	<1	1	<1
Chromium	ppm	<1	7	6	7
Molybdenum	ppm	43	3	2	5
Nickel	ppm	0	<1	1	1
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	1	12	10	11
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	3928	4005	3757	4112
Magnesium	ppm	41	0	9	17
Zinc	ppm	1583	1652	1621	1656
Phosphorus	ppm	1311	1402	1257	1287
Barium	ppm	<1	0	0	0
Boron	ppm	154	133	119	149

Depot: WASTAM
Unique No: 11018956
Signed: Don Baldrige
Report Date: 10 May 2024

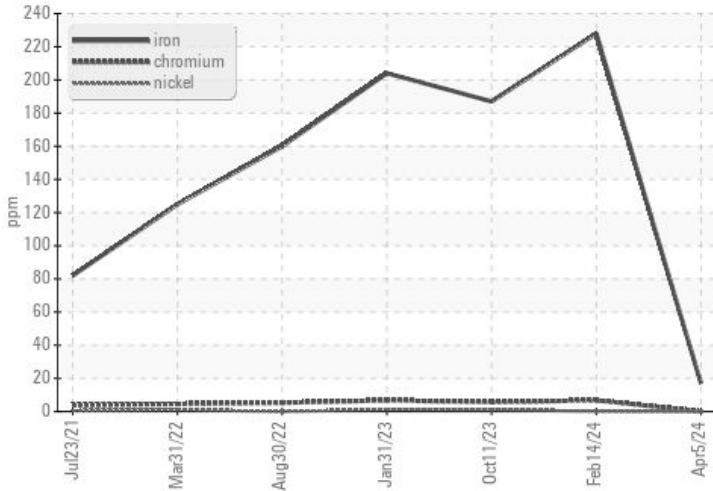


CONSTRUCTION EQUIPMENT

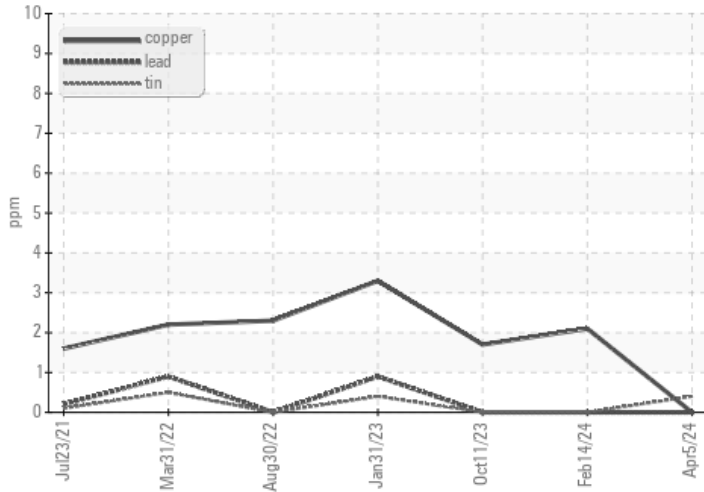


GRAPHS

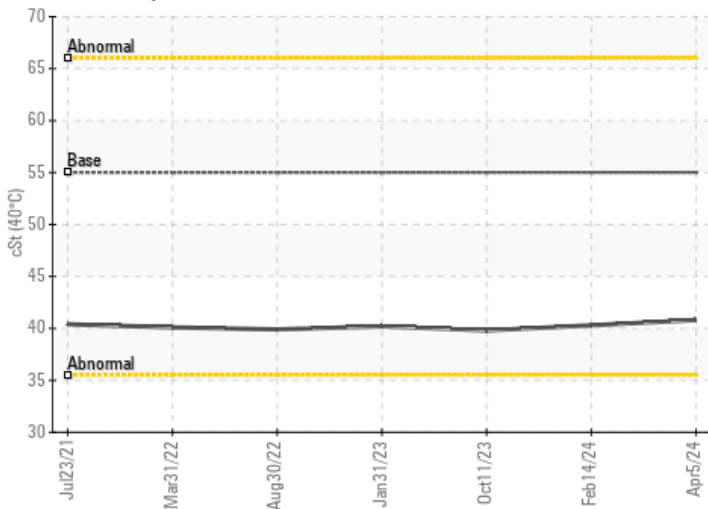
Ferrous Alloys



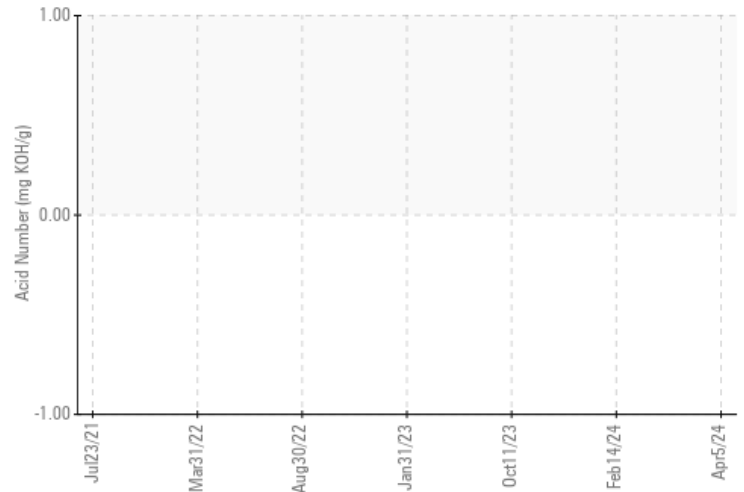
Non-ferrous Metals



Viscosity @ 40°C



Acid Number





CONSTRUCTION EQUIPMENT

527681 VOLVO L60H 622532 - REAR AXLE



Sample No: VCP440027
Oil Type: VOLVO WB 102
Job No: 527681



SAMPLE INFORMATION

Sample Number	VCP440027	VCP444308	VCP429201	VCP395973
Sample Date	05 Apr 2024	14 Feb 2024	11 Oct 2023	31 Jan 2023
Machine Hours	11071	10530	9385	7204
Oil Hours	2000	2000	4000	1000
Oil Changed	Changed	Changed	Not Changd	Not Changd
Sample Status	MARGINAL	ABNORMAL	NORMAL	NORMAL

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 3518 4TH AVE
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 US 33605
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 jpollock2@wm.com
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OIL CONDITION

Visc @ 40°C	cSt	42.3	41.5	39.6	40.7
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CONTAMINATION

Water	%	0.391	NEG	NEG	NEG
Silicon	ppm	13	15	14	14
Sodium	ppm	0	10	9	11
Potassium	ppm	0	0	<1	<1

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a light concentration of water present in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	43	564	427	186
Copper	ppm	<1	16	13	2
Lead	ppm	0	0	0	1
Tin	ppm	<1	2	<1	<1
Aluminum	ppm	<1	1	1	<1
Chromium	ppm	<1	9	7	6
Molybdenum	ppm	50	21	14	4
Nickel	ppm	0	3	3	1
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	2	20	16	11
Vanadium	ppm	0	0	<1	0



ADDITIVES

Calcium	ppm	3928	4013	3653	3816
Magnesium	ppm	44	0	8	16
Zinc	ppm	1592	1628	1582	1574
Phosphorus	ppm	1292	1415	1268	1180
Barium	ppm	<1	0	0	0
Boron	ppm	150	132	111	133

Depot: WASTAM
Unique No: 11018974
Signed: Don Baldrige
Report Date: 10 May 2024



CONSTRUCTION EQUIPMENT



VOLVO GRAPHS

