



CONSTRUCTION EQUIPMENT

SWA266523 VOLVO L180H 5317 - COOLANT



Sample No: VCP425190
Oil Type: VOLVO COOLANT VCS (YELLOW)
Job No: SWA266523



SAMPLE INFORMATION

Sample Number	VCP425190	VCP400647	VCP380581	VCP368735
Sample Date	22 May 2023	08 Mar 2023	23 Jan 2023	16 Dec 2022
Machine Hours	7647	7096	6801	6548
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

ALTA EQUIPMENT

5985 COURT STREET ROAD
 SYRACUSE, NY
 US 13206
 Contact: JIM STRIGLE
 JIM.STRIGLE@ALTG.COM
 T: (315)437-2611
 F: (315)434-9471



COOLANT CONDITION

pH	Scale 0-14	6.96	6.88	6.94	6.93
Reserve Alkalinity	Scale 0-20	---	---	---	---
Nitrites	ppm	NT	NT	NT	NT
Percentage Glycol	%	50.0	50.0	49.9	49.8
Freezing Point	°C	-35	-35	-33	-33

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	normal	normal	normal
Coolant Color	Orange	Yllow	Orange	Orange

Depot: VOLVO0142
Unique No: 10486284
Signed: Jonathan Hester
Report Date: 31 May 2023

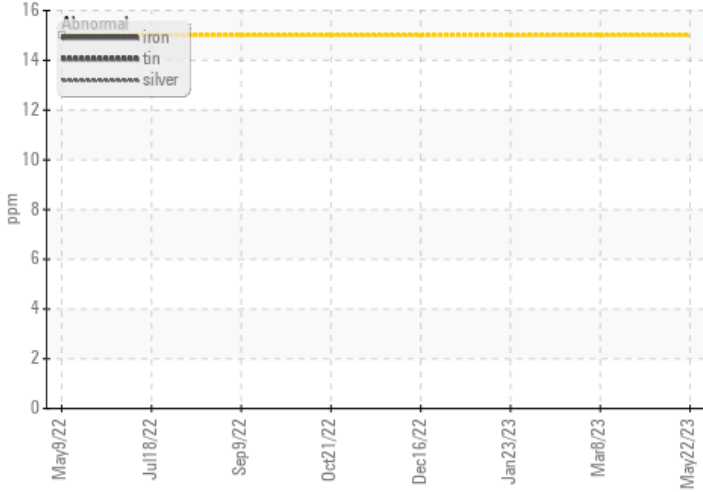


CONSTRUCTION EQUIPMENT

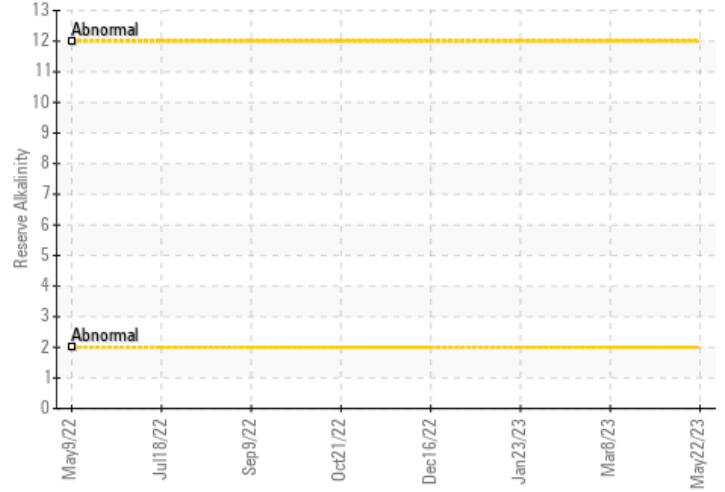


VOLVO GRAPHS

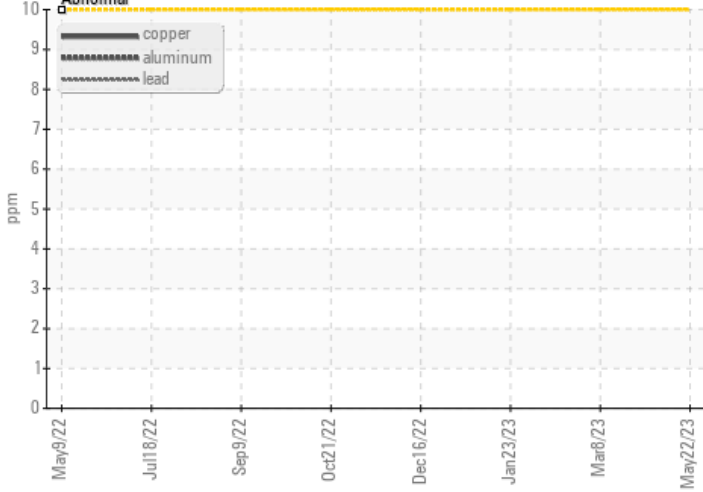
Iron/Tin/Silver



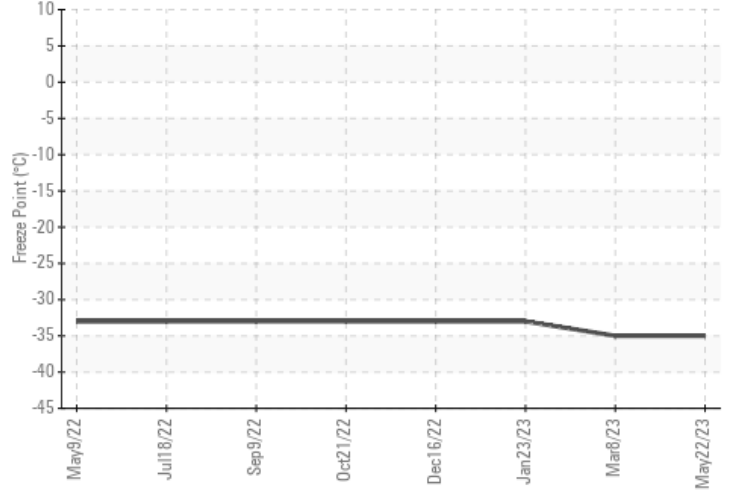
Reserve Alkalinity



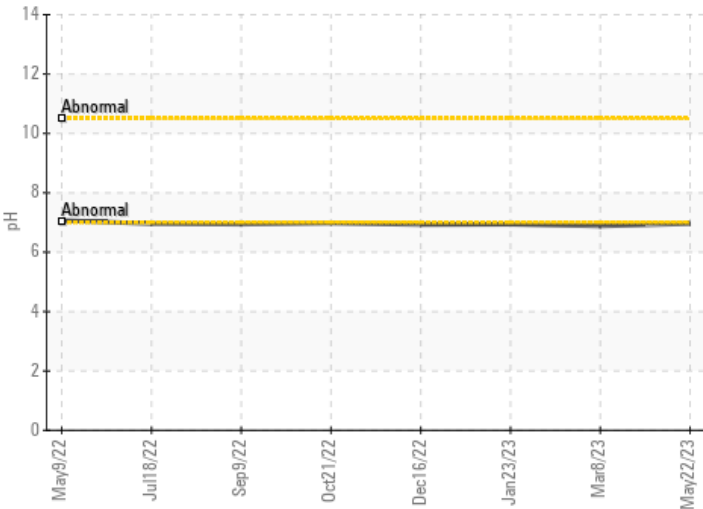
Copper/Aluminum/Lead



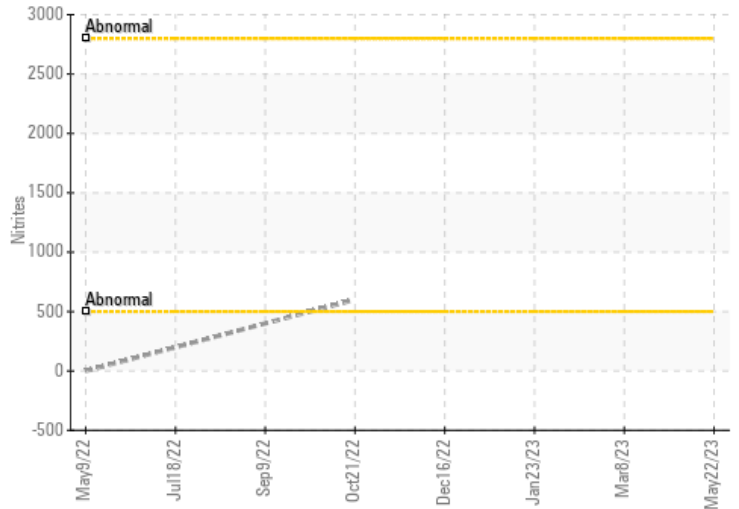
Freeze Point



pH



Nitrites





CONSTRUCTION EQUIPMENT

SWA266535 VOLVO L180H 5317 - DIESEL ENGINE



Sample No: VCP425191
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No: SWA266535



SAMPLE INFORMATION

Sample Number	VCP425191	VCP400648	VCP400787	VCP367750
Sample Date	22 May 2023	08 Mar 2023	23 Jan 2023	16 Dec 2022
Machine Hours	7647	7096	6801	6548
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	N/A	Changed
Sample Status	NORMAL	NORMAL	ATTENTION	ATTENTION

ALTA EQUIPMENT

5985 COURT STREET ROAD
 SYRACUSE, NY
 US 13206
 Contact: JIM STRIGLE
 JIM.STRIGLE@ALTG.COM
 T: (315)437-2611
 F: (315)434-9471



OIL CONDITION

Visc @ 100°C	cSt	12.8	12.2	▲ 12.2	▲ 12.3
Base Number (BN)	mg KOH/g	10.1	10.9	10.7	11.3
Oxidation (PA)	%	83	79	80	86



CONTAMINATION

Water	%	---	---	0.105	---
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	53	52	52	57
Sulfation (PA)	%	63	61	60	65
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	1.0
Silicon	ppm	8	6	5	5
Sodium	ppm	2	2	0	0
Potassium	ppm	4	0	<1	1



WEAR METALS

Iron	ppm	2	2	2	2
Copper	ppm	<1	0	<1	1
Lead	ppm	2	0	1	3
Tin	ppm	<1	0	<1	0
Aluminum	ppm	2	0	1	<1
Chromium	ppm	<1	0	<1	0
Molybdenum	ppm	38	37	42	41
Nickel	ppm	<1	0	<1	0
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	1711	1638	1718	1737
Magnesium	ppm	559	477	506	471
Zinc	ppm	1181	1082	1165	1089
Phosphorus	ppm	917	829	949	921
Barium	ppm	0	0	0	0
Boron	ppm	55	55	66	57

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.

Depot: VOLVO0142
Unique No: 10485835
Signed: Wes Davis
Report Date: 25 May 2023

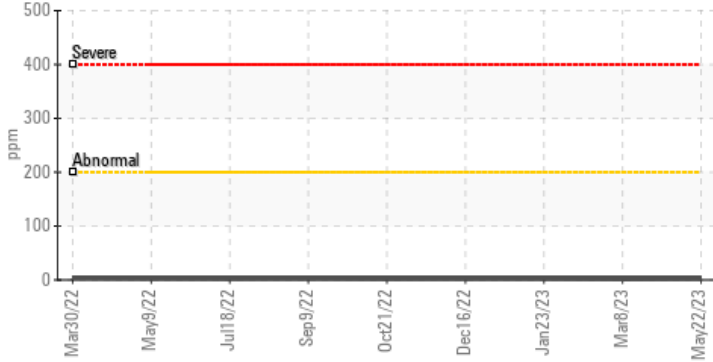


CONSTRUCTION EQUIPMENT

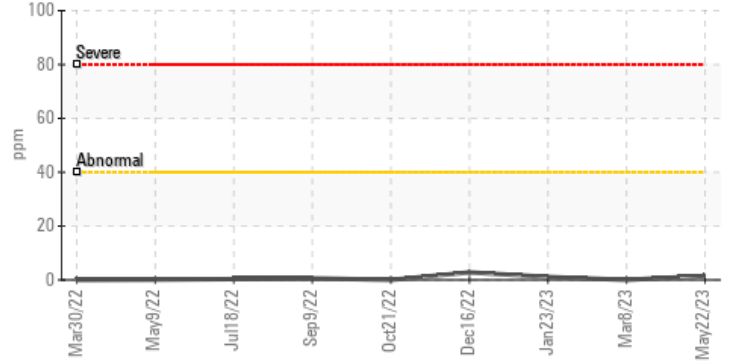


GRAPHS

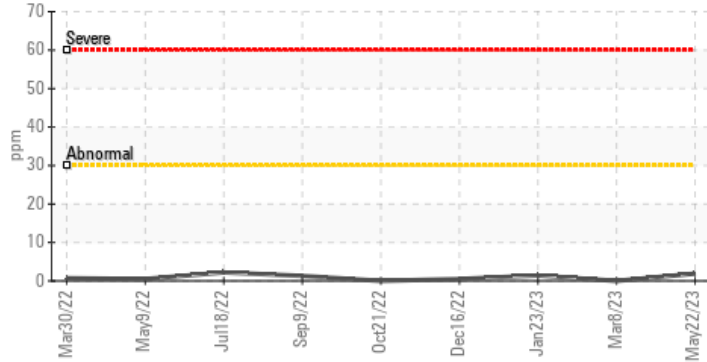
Iron (ppm)



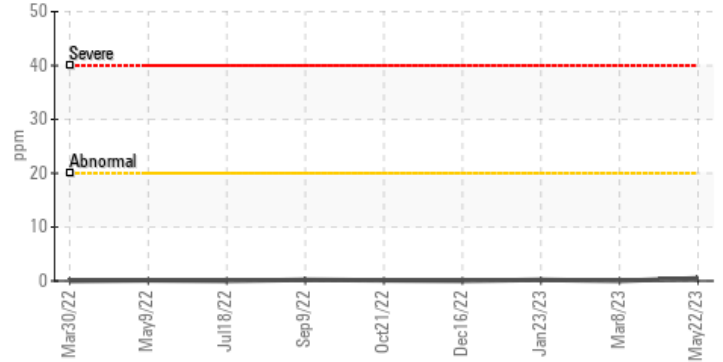
Lead (ppm)



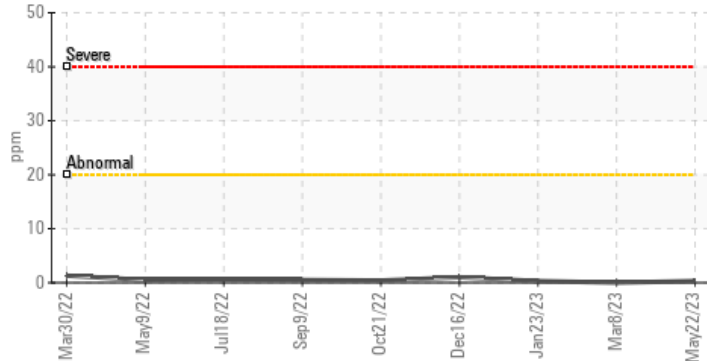
Aluminum (ppm)



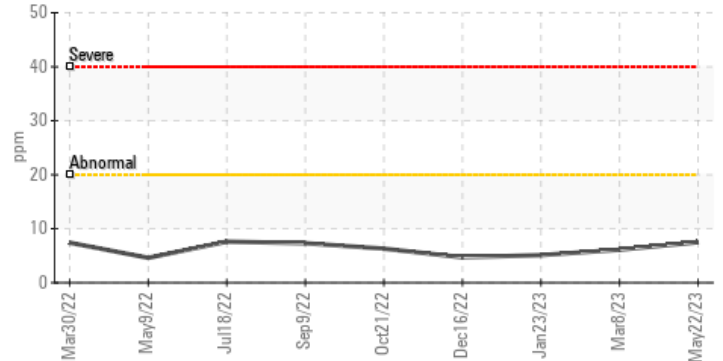
Chromium (ppm)



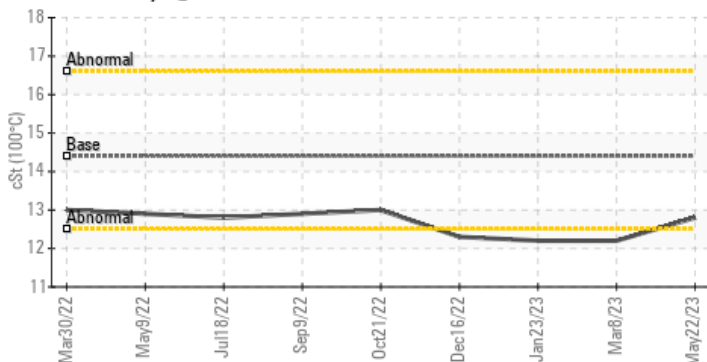
Copper (ppm)



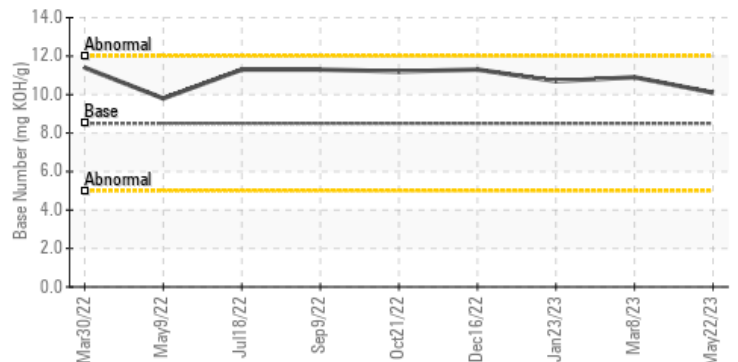
Silicon (ppm)



Viscosity @ 100°C



Base Number





CONSTRUCTION EQUIPMENT

SWA266523 VOLVO L180H 5317 - TRANSMISSION (AUTO)



Sample No: VCP425186
Oil Type: DEXRON III
Job No: SWA266523



SAMPLE INFORMATION

Sample Number	VCP425186	VCP400645	VCP380580	VCP368730
Sample Date	22 May 2023	08 Mar 2023	23 Jan 2023	16 Dec 2022
Machine Hours	7647	7096	6801	6548
Oil Hours	0	0	0	0
Oil Changed	N/A	Not Changd	N/A	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

ALTA EQUIPMENT

5985 COURT STREET ROAD
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 US 13206
 Contact: JIM STRIGLE
 JIM.STRIGLE@ALTG.COM
 T: (315)437-2611
 F: (315)434-9471



OIL CONDITION

Visc @ 40°C	cSt	25.7	25.8	25.9	26.0
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CONTAMINATION

Silicon	ppm	5	5	4	0
Sodium	ppm	0	3	2	0
Potassium	ppm	<1	0	<1	<1



WEAR METALS

Iron	ppm	97	73	74	66
Copper	ppm	4	4	7	3
Lead	ppm	0	0	<1	0
Tin	ppm	0	0	<1	0
Aluminum	ppm	0	<1	<1	0
Chromium	ppm	<1	<1	<1	0
Molybdenum	ppm	<1	<1	<1	0
Nickel	ppm	<1	<1	<1	0
Titanium	ppm	0	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	2	3	2	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	78	73	80	74
Magnesium	ppm	2	2	1	0
Zinc	ppm	6	4	1	3
Phosphorus	ppm	191	174	228	189
Barium	ppm	0	0	0	0
Boron	ppm	89	85	85	86

Diagnosis

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DEXRON III. Please confirm. 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.

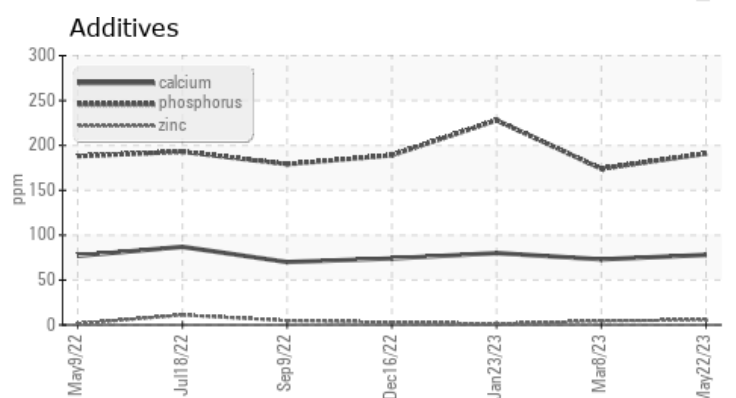
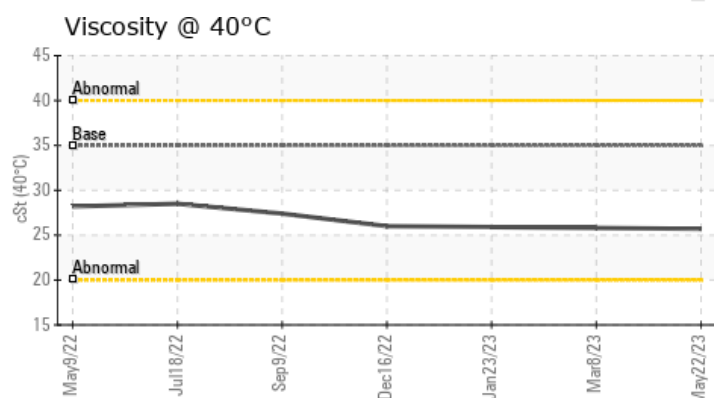
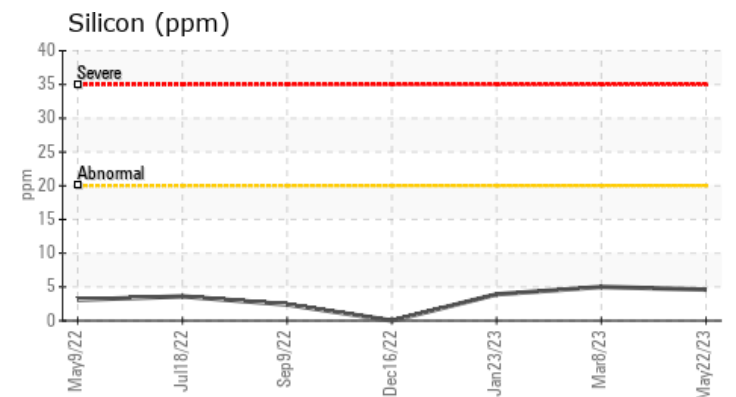
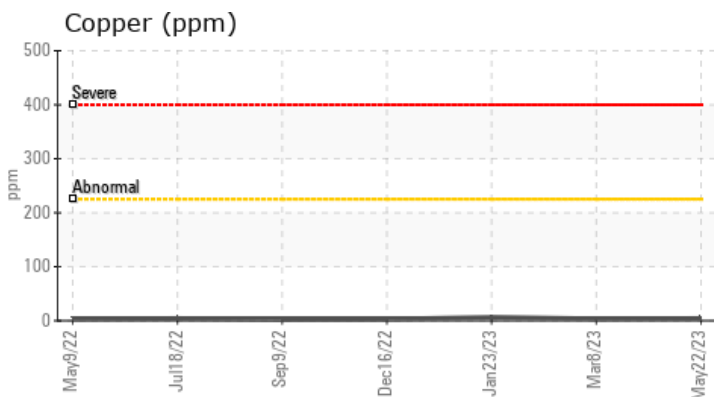
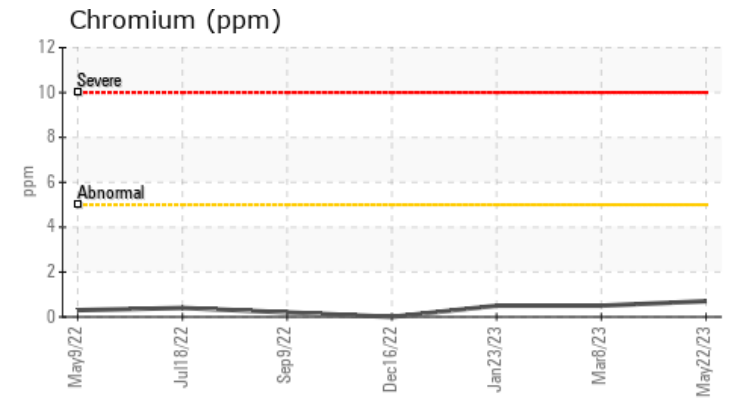
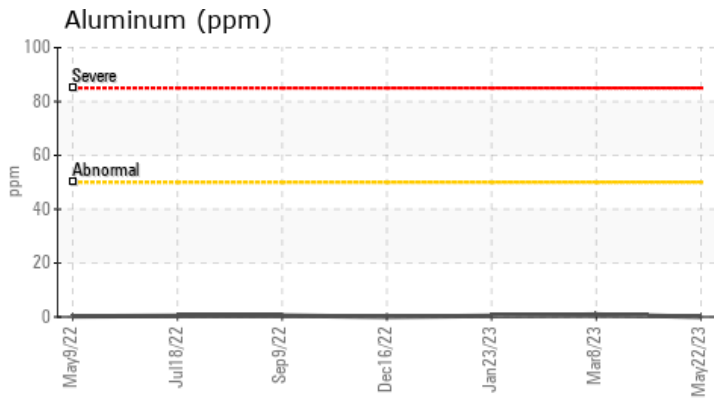
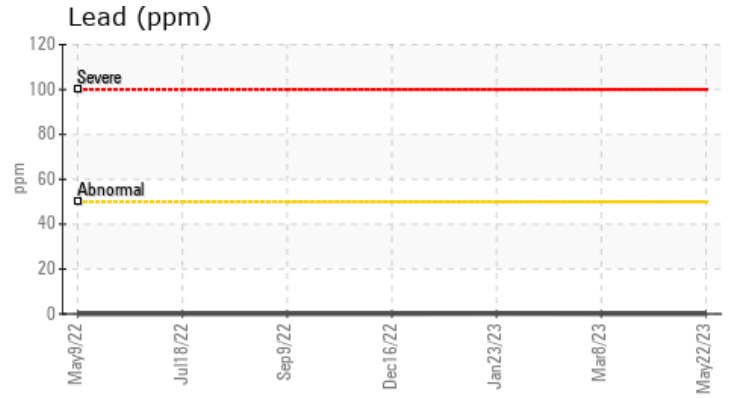
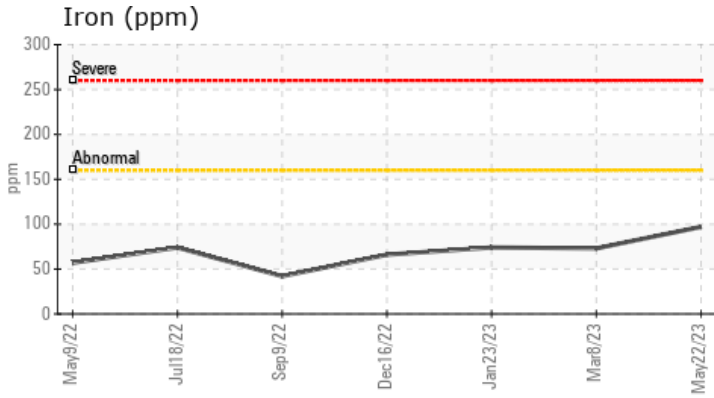
Depot: VOLVO0142
Unique No: 10486257
Signed: Wes Davis
Report Date: 26 May 2023



CONSTRUCTION EQUIPMENT



VOLVO GRAPHS





CONSTRUCTION EQUIPMENT

SWA266523 VOLVO L180H 5317 - HYDRAULIC SYSTEM



Sample No: VCP425193
Oil Type: AW HYDRAULIC OIL ISO 46
Job No: SWA266523



SAMPLE INFORMATION

Sample Number	VCP425193	VCP401415	VCP400785	VCP368736
Sample Date	22 May 2023	08 Mar 2023	23 Jan 2023	16 Dec 2022
Machine Hours	7647	7096	6801	6548
Oil Hours	0	0	0	0
Oil Changed	N/A	Not Changd	N/A	Not Changd
Sample Status	ATTENTION	ABNORMAL	ATTENTION	ABNORMAL

ALTA EQUIPMENT

5985 COURT STREET ROAD
 SYRACUSE, NY
 US 13206
 Contact: JIM STRIGLE
 JIM.STRIGLE@ALTG.COM
 T: (315)437-2611
 F: (315)434-9471

OIL CONDITION

Visc @ 40°C	cSt	40.8	40.7	40.8	40.5
Acid Number (AN)	mg KOH/g	0.35	0.40	0.35	0.42

CONTAMINATION

Particles >4µm	6619	23463	6037	24990	
Particles >6µm	1034	4907	943	5973	
Particles >14µm	41	156	65	348	
ISO 4406:1999 (c)	20/17/13	22/19/14	20/17/13	22/20/16	
Silicon	ppm	2	3	2	2
Sodium	ppm	3	0	0	4
Potassium	ppm	2	4	3	2

Diagnosis

We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

WEAR METALS

Iron	ppm	3	4	4	3
Copper	ppm	2	3	3	3
Lead	ppm	0	<1	<1	<1
Tin	ppm	0	<1	0	0
Aluminum	ppm	1	1	0	<1
Chromium	ppm	2	2	2	2
Molybdenum	ppm	3	3	4	3
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	0	0	0
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	92	102	98	95
Magnesium	ppm	7	8	7	4
Zinc	ppm	448	438	449	439
Phosphorus	ppm	342	329	347	362
Barium	ppm	0	0	1	0
Boron	ppm	2	3	2	2

Depot: VOLV00142
Unique No: 10485985
Signed: Wes Davis
Report Date: 26 May 2023

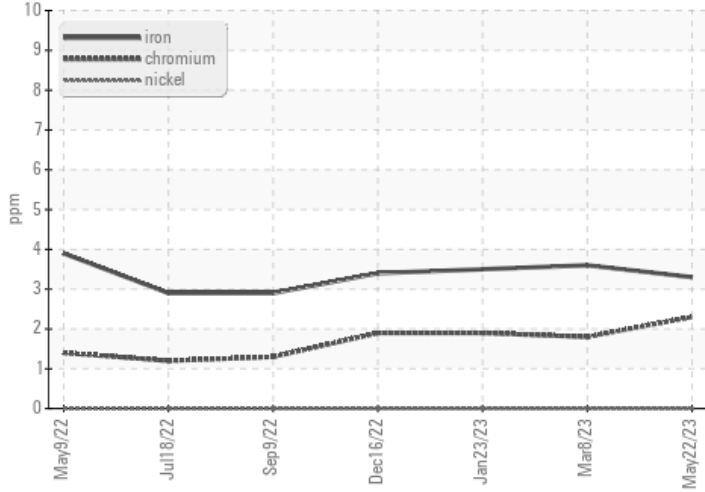


CONSTRUCTION EQUIPMENT

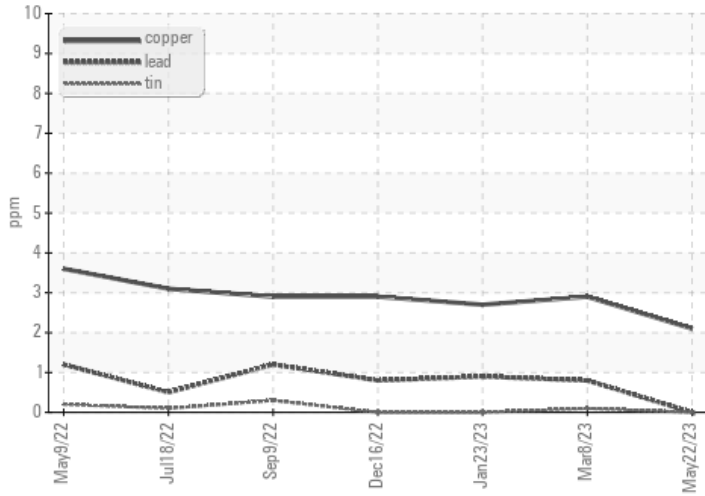


GRAPHS

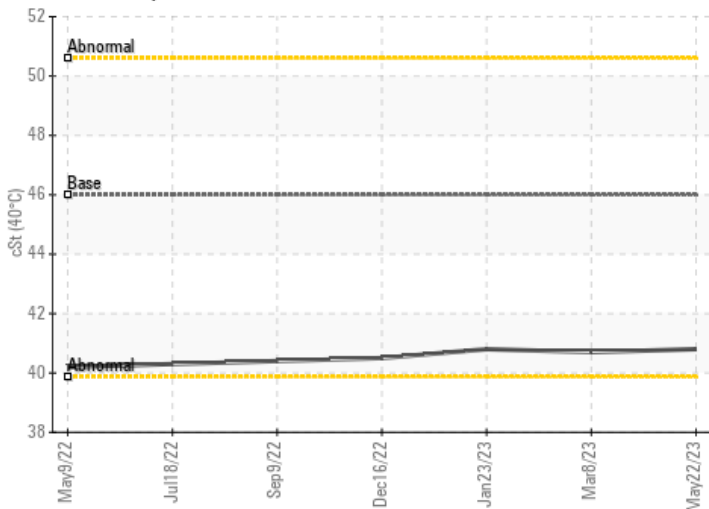
Ferrous Alloys



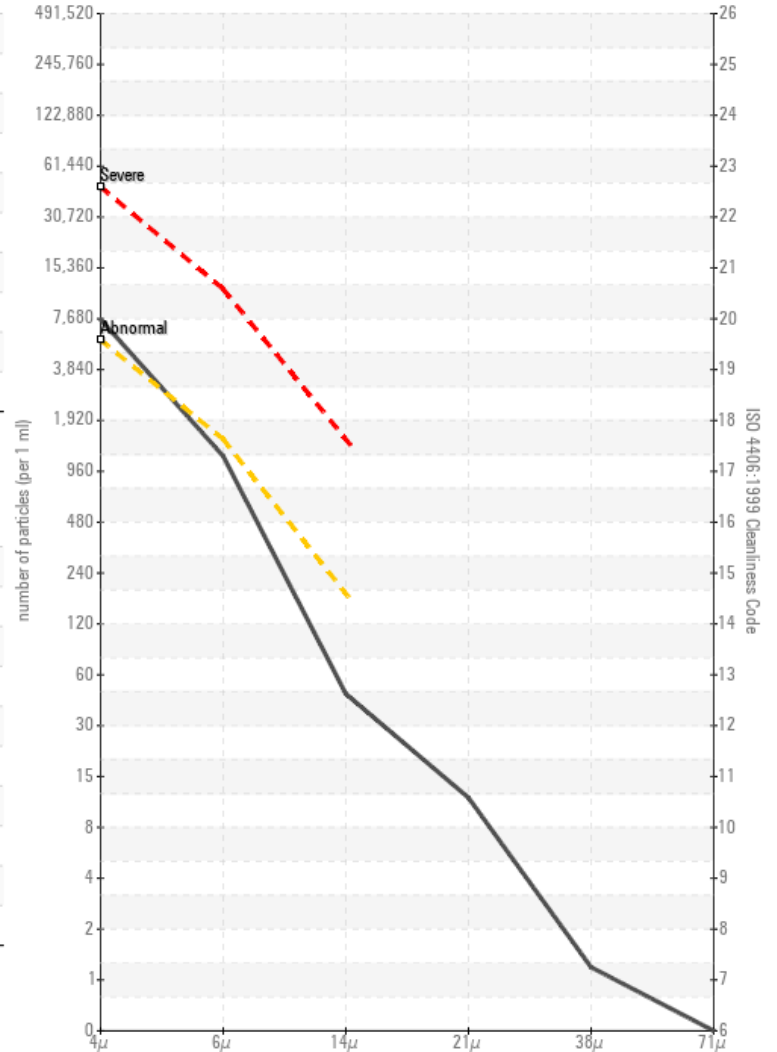
Non-ferrous Metals



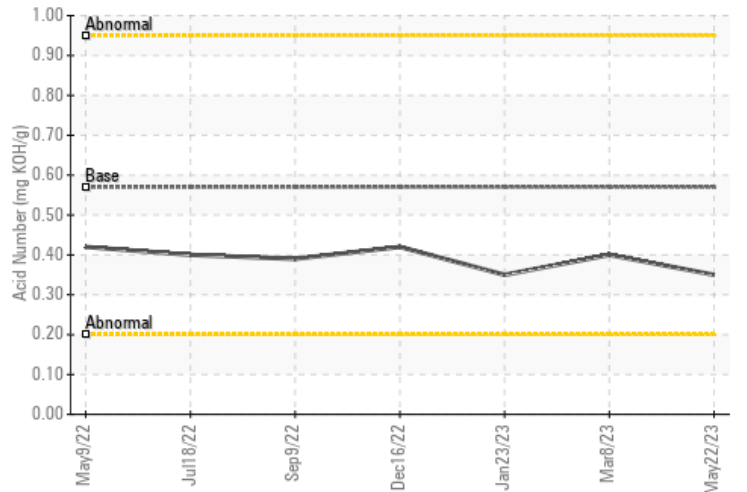
Viscosity @ 40°C



Particle Count



Acid Number





CONSTRUCTION EQUIPMENT

SWA195346 VOLVO L180H 5317 - FRONT AXLE



Sample No: VCP400656
Oil Type: TRANSAXLE OIL SAE 75W80
Job No: SWA195346



SAMPLE INFORMATION

Sample Number	VCP400656	VCP380578	VCP387890	VCP377378
Sample Date	08 Mar 2023	23 Jan 2023	09 Sep 2022	18 Jul 2022
Machine Hours	7096	6801	5911	5558
Oil Hours	0	0	0	0
Oil Changed	Changed	N/A	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	ABNORMAL	NORMAL

ALTA EQUIPMENT
 5985 COURT STREET ROAD
 SYRACUSE, NY
 US 13206
 Contact: JIM STRIGLE
 JIM.STRIGLE@ALTG.COM
 T: (315)437-2611
 F: (315)434-9471

OIL CONDITION

Visc @ 40°C	cSt	44.2	42.2	42.1	42.4
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CONTAMINATION

Silicon	ppm	16	14	12	13
Sodium	ppm	1	9	9	9
Potassium	ppm	0	<1	0	0

WEAR METALS

Iron	ppm	7	42	30	28
Copper	ppm	0	4	4	3
Lead	ppm	0	1	<1	<1
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	<1	1	1	1
Chromium	ppm	0	1	<1	<1
Molybdenum	ppm	<1	<1	<1	<1
Nickel	ppm	0	<1	<1	0
Titanium	ppm	0	<1	0	0
Silver	ppm	2	0	<1	<1
Manganese	ppm	<1	2	1	1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	4342	4146	3820	4191
Magnesium	ppm	27	18	15	15
Zinc	ppm	1788	1697	1560	1631
Phosphorus	ppm	1314	1280	1215	1259
Barium	ppm	0	0	0	0
Boron	ppm	132	131	154	151

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.

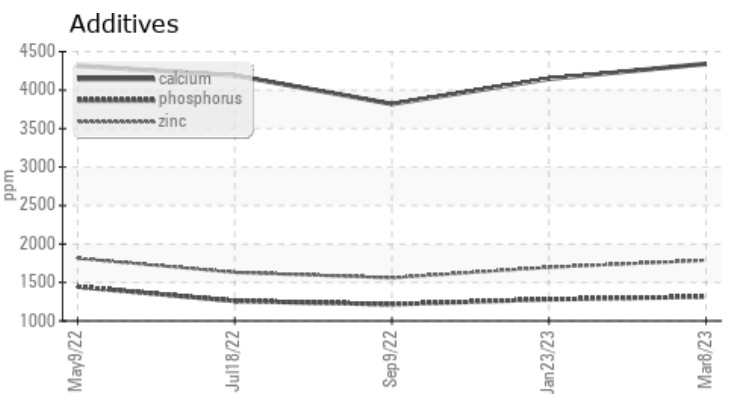
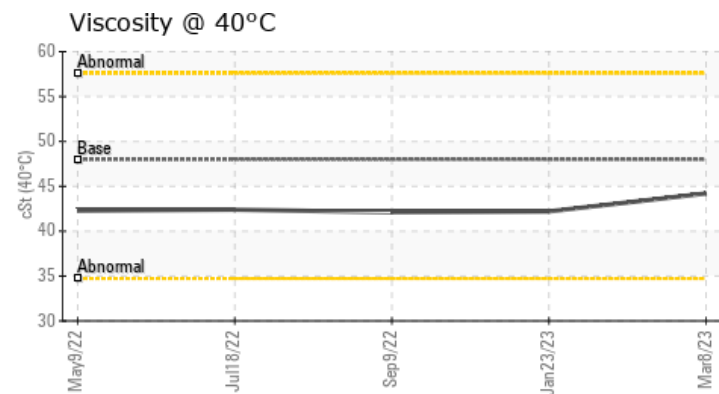
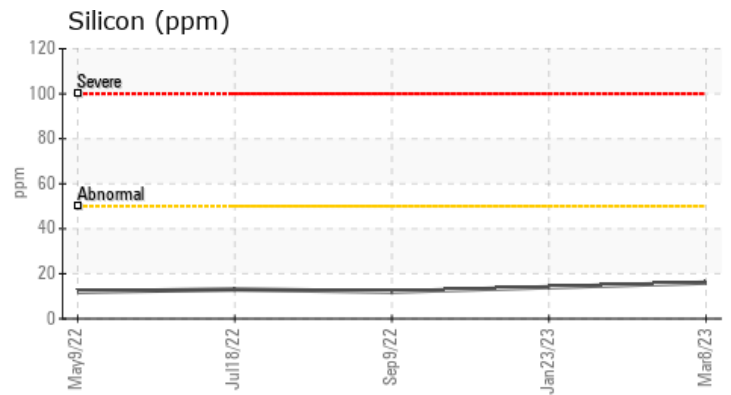
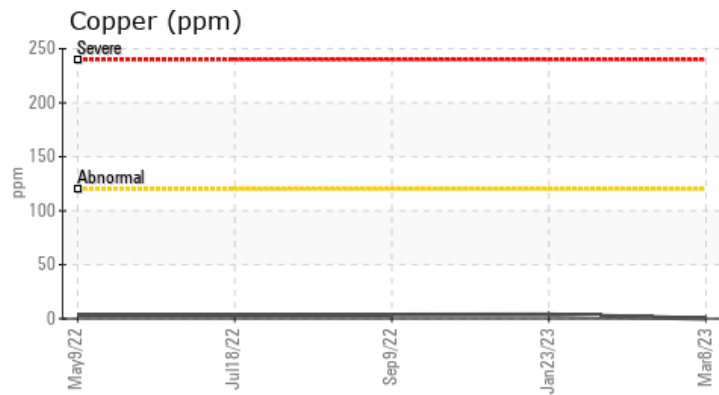
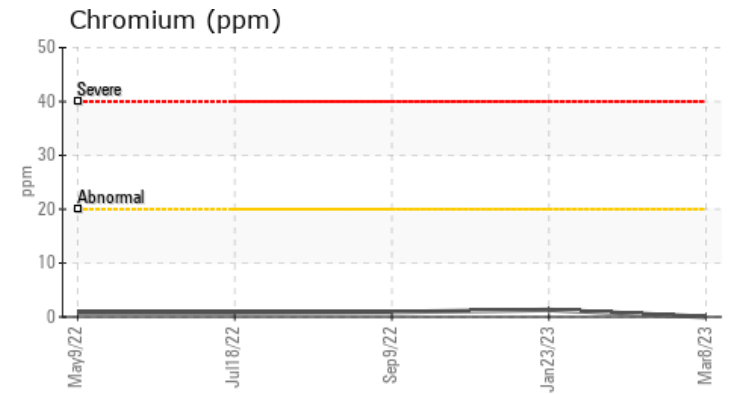
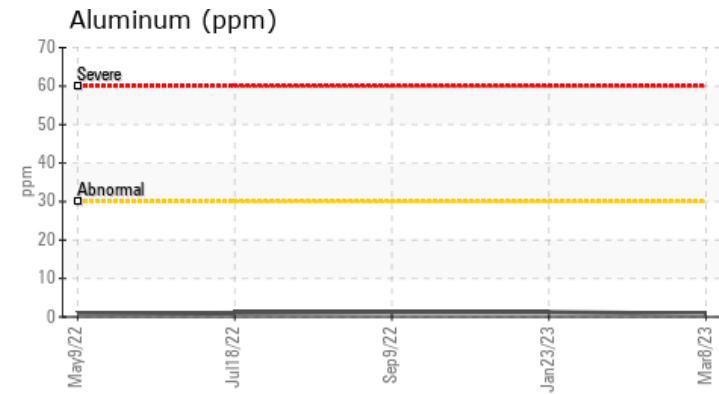
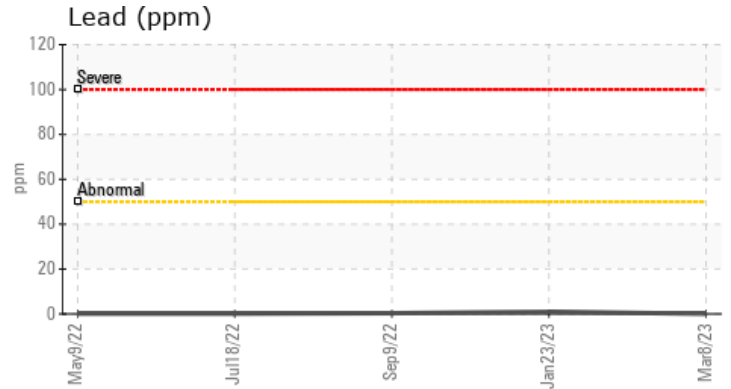
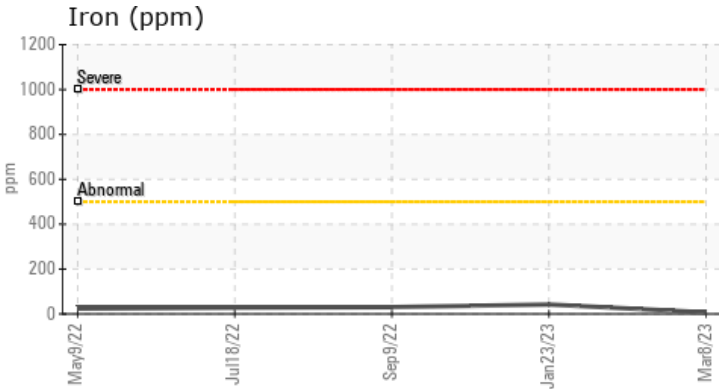
Depot: VOLVO0142
Unique No: 10389082
Signed: Don Baldrige
Report Date: 28 Mar 2023



CONSTRUCTION EQUIPMENT



VOLVO GRAPHS





CONSTRUCTION EQUIPMENT

SWA195346 VOLVO L180H 5317 - REAR AXLE



Sample No: VCP400644
Oil Type: TRANSAXLE OIL SAE 75W80
Job No: SWA195346



SAMPLE INFORMATION

Sample Number	VCP400644	VCP380579	VCP387874	VCP377387
Sample Date	08 Mar 2023	23 Jan 2023	09 Sep 2022	18 Jul 2022
Machine Hours	7096	6801	5911	5558
Oil Hours	0	0	0	0
Oil Changed	Changed	N/A	Not Changd	Not Changd
Sample Status	NORMAL	ABNORMAL	ABNORMAL	NORMAL

ALTA EQUIPMENT

5985 COURT STREET ROAD
 SYRACUSE, NY
 US 13206
 Contact: JIM STRIGLE
 JIM.STRIGLE@ALTG.COM
 T: (315)437-2611
 F: (315)434-9471



OIL CONDITION

Visc @ 40°C	cSt	44.3	42.4	42.4	42.6
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CONTAMINATION

Silicon	ppm	16	14	12	16
Sodium	ppm	2	9	9	8
Potassium	ppm	0	<1	0	0



WEAR METALS

Iron	ppm	22	33	22	23
Copper	ppm	1	3	2	1
Lead	ppm	<1	<1	<1	0
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	<1	1	2	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	<1	<1	<1	<1
Nickel	ppm	<1	<1	<1	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	<1	0	<1	<1
Manganese	ppm	2	1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	4049	4066	3827	4073
Magnesium	ppm	19	17	14	14
Zinc	ppm	1534	1639	1570	1607
Phosphorus	ppm	1219	1254	1222	1244
Barium	ppm	0	0	0	0
Boron	ppm	142	130	153	149

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.

Depot: VOLVO0142
Unique No: 10389688
Signed: Wes Davis
Report Date: 24 Mar 2023



CONSTRUCTION EQUIPMENT



VOLVO GRAPHS

