



CONSTRUCTION EQUIPMENT

728466 VOLVO L110H 631377 - DIESEL ENGINE



Sample No: VCP454891
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 728466



SAMPLE INFORMATION

Sample Number	VCP454891	VCP455085	VCP412217	VCP425726
Sample Date	04 Jun 2024	06 Mar 2024	24 Aug 2023	08 May 2023
Machine Hours	9020	8503	7531	7017
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

BLUE GOOSE GROWERS
 16059 W ORANGE AVE
 FT PIERCE, FL
 US 34945
 Contact: SERVICE MANAGER

OIL CONDITION

Visc @ 100°C	cSt	13.4	13.4	13.1	12.7
Base Number (BN)	mg KOH/g	10.1	9.0	10.4	10.3
Oxidation (PA)	%	81	82	82	77

T: (772)461-3020
 F:

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	0.6	0.3	0.3
Nitration (PA)	%	63	80	64	61
Sulfation (PA)	%	61	59	61	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	5	4	6
Sodium	ppm	1	<1	2	2
Potassium	ppm	1	1	<1	1

WEAR METALS

Iron	ppm	10	18	10	11
Copper	ppm	<1	2	<1	0
Lead	ppm	<1	<1	<1	0
Tin	ppm	<1	<1	<1	1
Aluminum	ppm	5	9	6	10
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	44	56	44	51
Nickel	ppm	0	0	0	<1
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	0	<1	<1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	1668	1693	1752	1699
Magnesium	ppm	536	600	566	711
Zinc	ppm	1168	1234	1154	1385
Phosphorus	ppm	1034	1110	969	1071
Barium	ppm	0	0	2	0
Boron	ppm	31	24	32	26

Depot: BLUFOR
Unique No: 11075827
Signed: Don Baldrige
Report Date: 14 Jun 2024

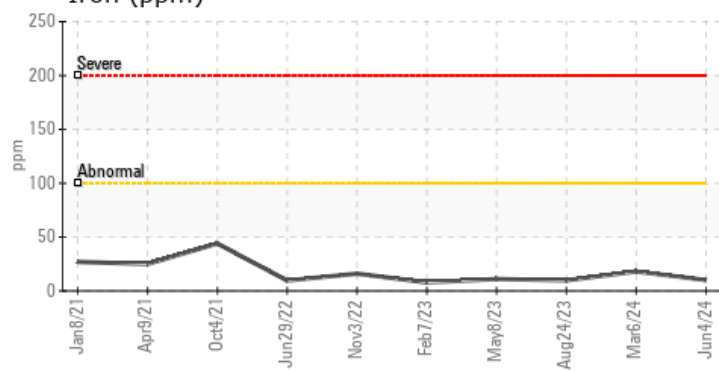


CONSTRUCTION EQUIPMENT

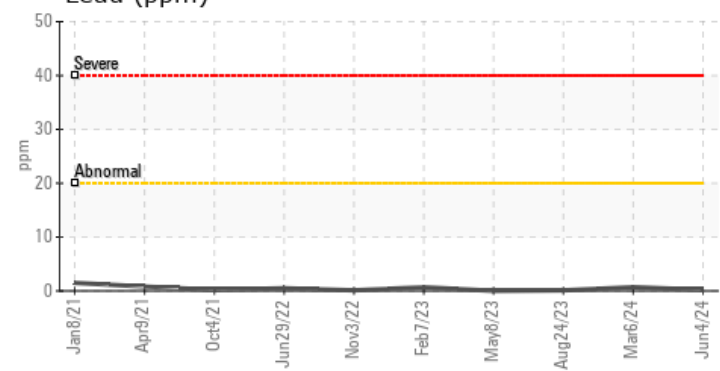


GRAPHS

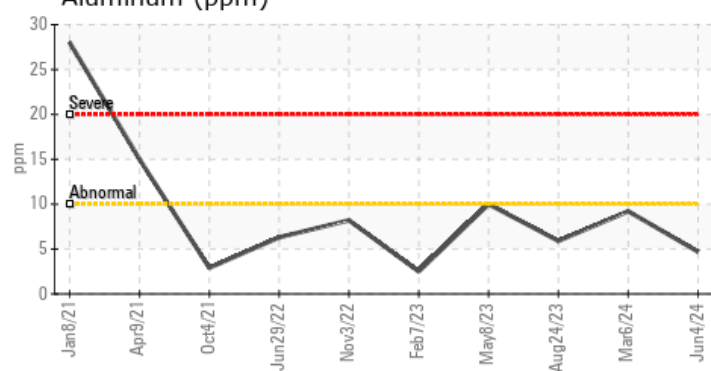
Iron (ppm)



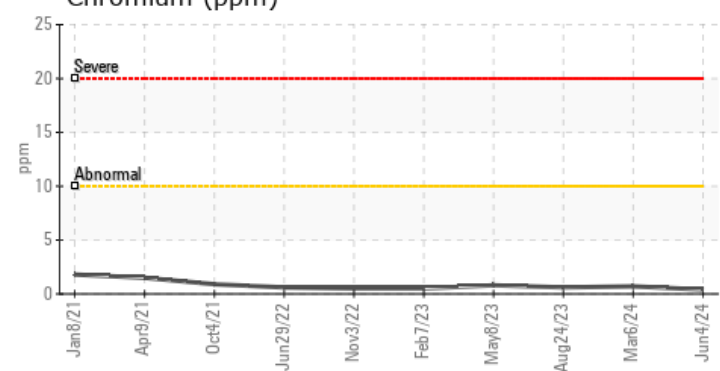
Lead (ppm)



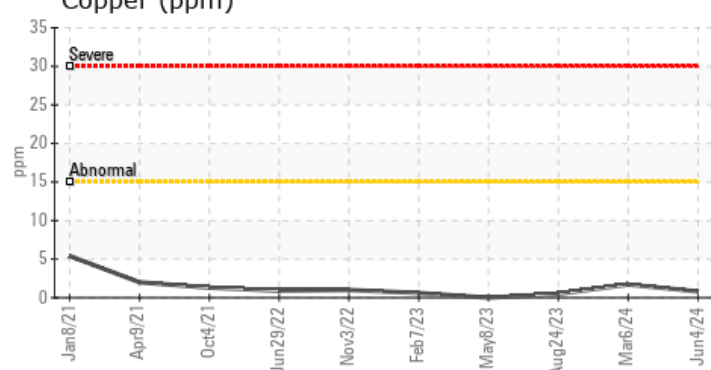
Aluminum (ppm)



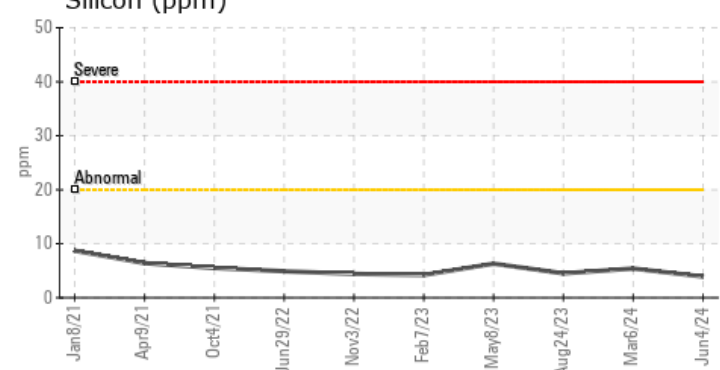
Chromium (ppm)



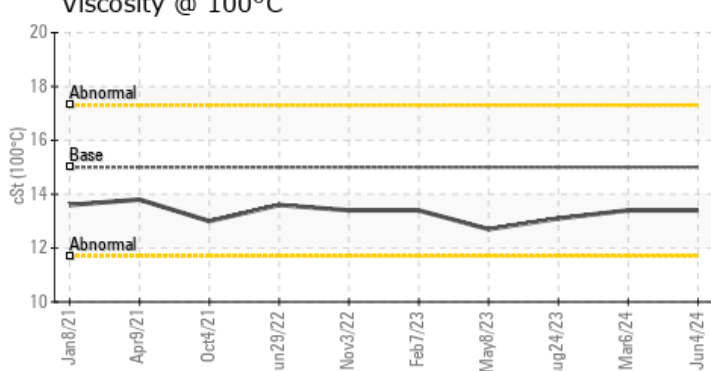
Copper (ppm)



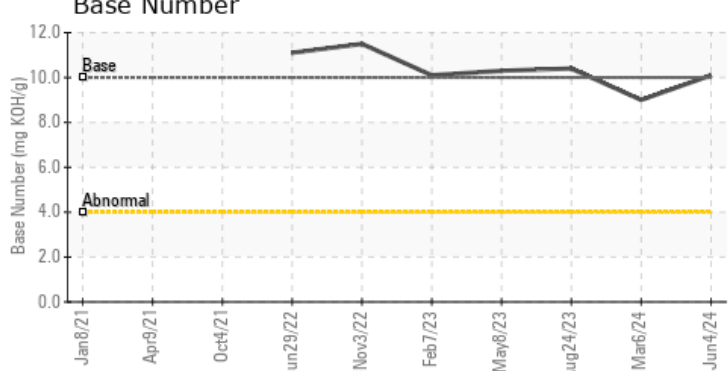
Silicon (ppm)



Viscosity @ 100°C



Base Number





CONSTRUCTION EQUIPMENT

728466 VOLVO L110H 631377 - TRANSMISSION (AUTO)



Sample No: VCP449970
Oil Type: VOLVO AT 102
Job No: 728466



SAMPLE INFORMATION

Sample Number	VCP449970	VCP438374	VCP421063	VCP425725
Sample Date	04 Jun 2024	06 Mar 2024	24 Aug 2023	08 May 2023
Machine Hours	9020	8503	7531	7017
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

BLUE GOOSE GROWERS
 16059 W ORANGE AVE
 FT PIERCE, FL
 US 34945
 Contact: SERVICE MANAGER



OIL CONDITION

Visc @ 40°C	cSt	28.4	24.5	27.9	28.9
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T: (772)461-3020
 F:



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	5	5	4	8
Sodium	ppm	2	2	4	2
Potassium	ppm	0	<1	<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 fluid. The condition of the fluid is acceptable for the time in service.



WEAR METALS

Iron	ppm	26	22	17	40
Copper	ppm	3	3	4	2
Lead	ppm	0	0	0	0
Tin	ppm	<1	<1	0	0
Aluminum	ppm	6	6	7	5
Chromium	ppm	<1	0	0	<1
Molybdenum	ppm	<1	0	0	<1
Nickel	ppm	0	0	0	<1
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	123	106	94	82
Magnesium	ppm	18	16	6	3
Zinc	ppm	40	37	15	4
Phosphorus	ppm	231	203	205	195
Barium	ppm	0	0	0	0
Boron	ppm	94	82	86	84

Depot: BLUFOR
Unique No: 11070632
Signed: Wes Davis
Report Date: 10 Jun 2024

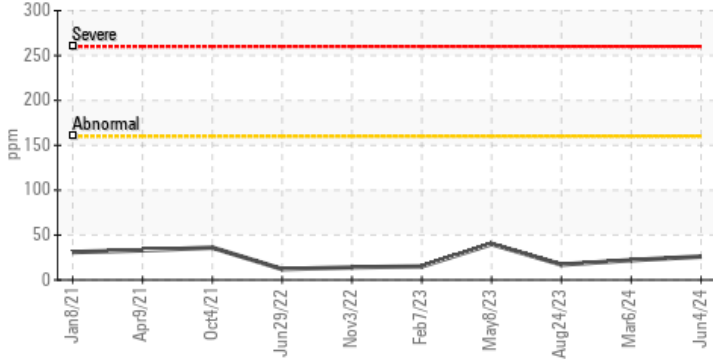


CONSTRUCTION EQUIPMENT

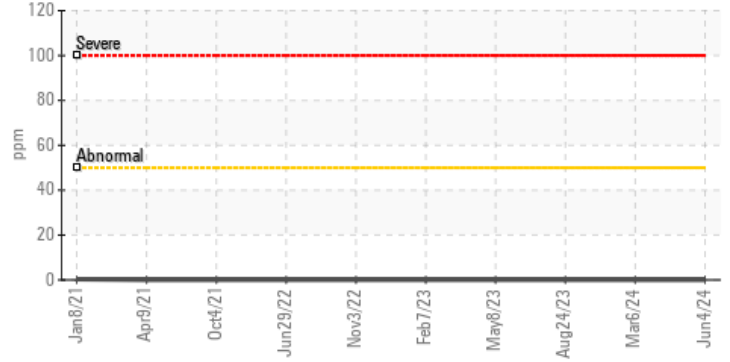


GRAPHS

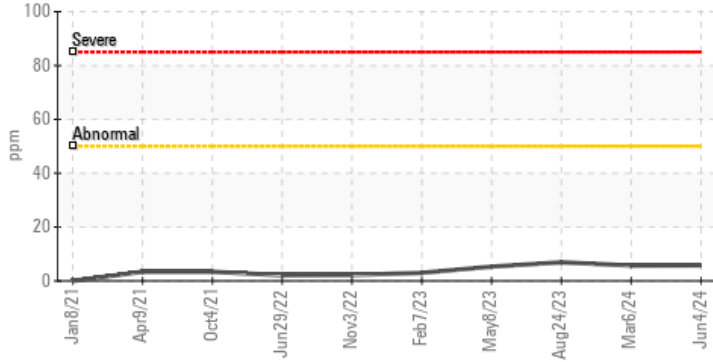
Iron (ppm)



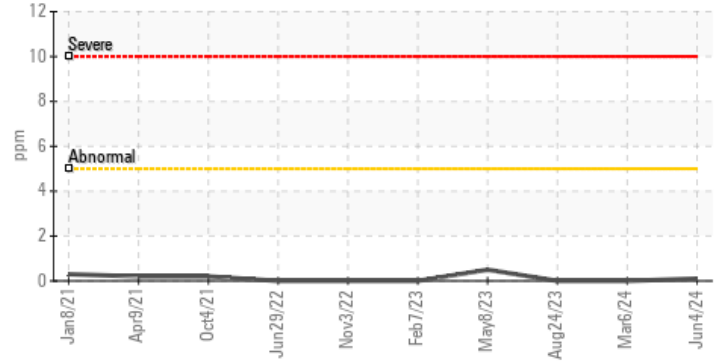
Lead (ppm)



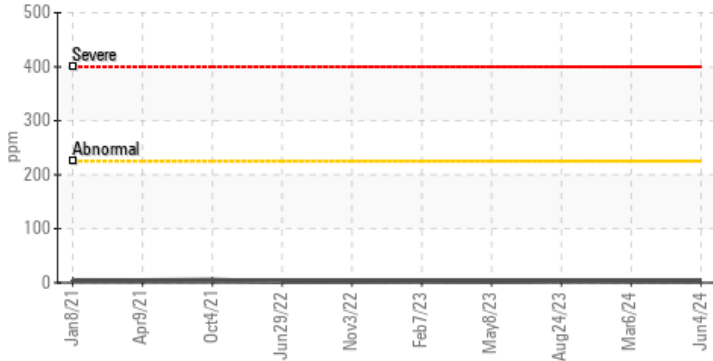
Aluminum (ppm)



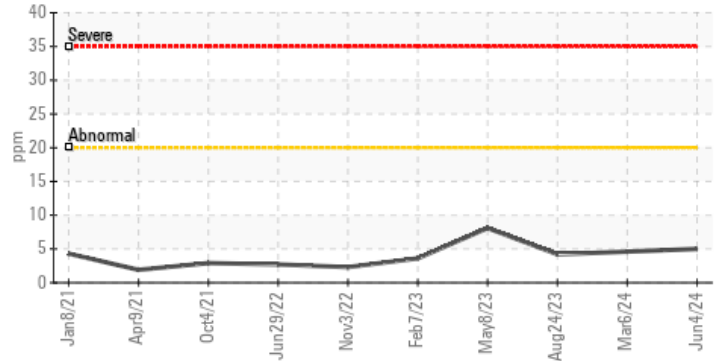
Chromium (ppm)



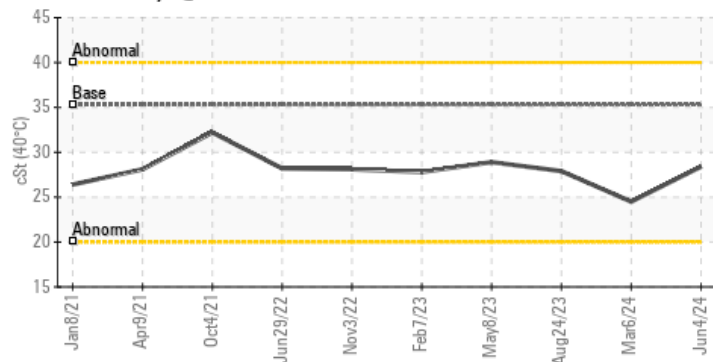
Copper (ppm)



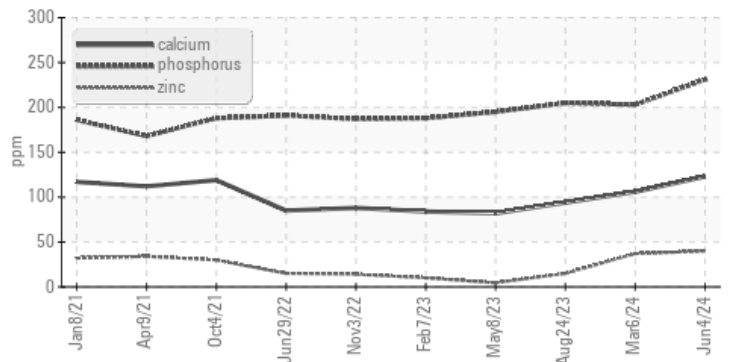
Silicon (ppm)



Viscosity @ 40°C



Additives





CONSTRUCTION EQUIPMENT

552803 VOLVO L110H 631377 - WET DISC BRAKE



Sample No: VCP425718
Oil Type: VOLVO SUPER WET BRAKE TRANSAXLE OIL WB102
Job No: 552803



SAMPLE INFORMATION

Sample Number	VCP425718	---	---	---
Sample Date	11 May 2023	---	---	---
Machine Hours	7017	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Chngd	---	---	---
Sample Status	NORMAL	---	---	---

BLUE GOOSE GROWERS
 16059 W ORANGE AVE
 FT PIERCE, FL
 US 34945
 Contact: SERVICE MANAGER



OIL CONDITION

Visc @ 40°C	cSt	█ 42.05	---	---	---
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T: (772)461-3020
 F:



CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	█ 15	---	---	---
Sodium	ppm	█ 7	---	---	---
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 condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	█ 37	---	---	---
Copper	ppm	█ 0	---	---	---
Lead	ppm	█ 0	---	---	---
Tin	ppm	█ <1	---	---	---
Aluminum	ppm	█ 5	---	---	---
Chromium	ppm	█ <1	---	---	---
Molybdenum	ppm	█ 2	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	█ 1	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	█ 4058	---	---	---
Magnesium	ppm	█ 24	---	---	---
Zinc	ppm	█ 1684	---	---	---
Phosphorus	ppm	█ 1315	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 131	---	---	---

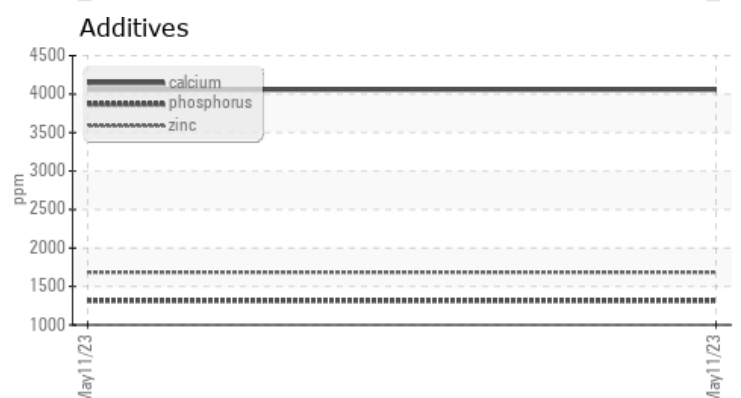
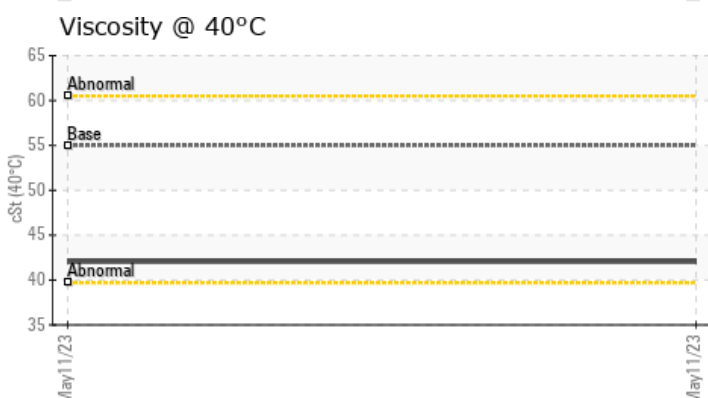
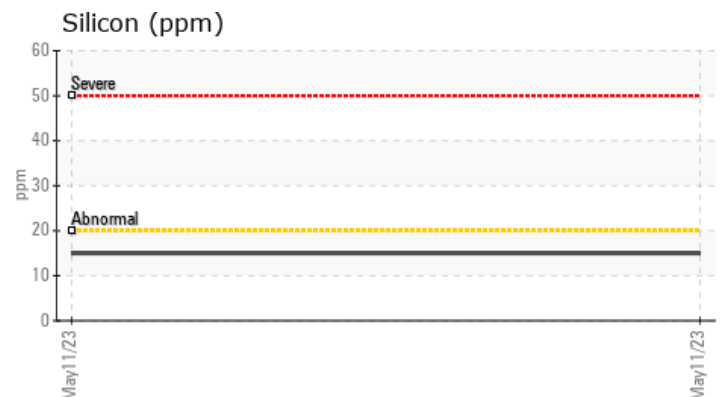
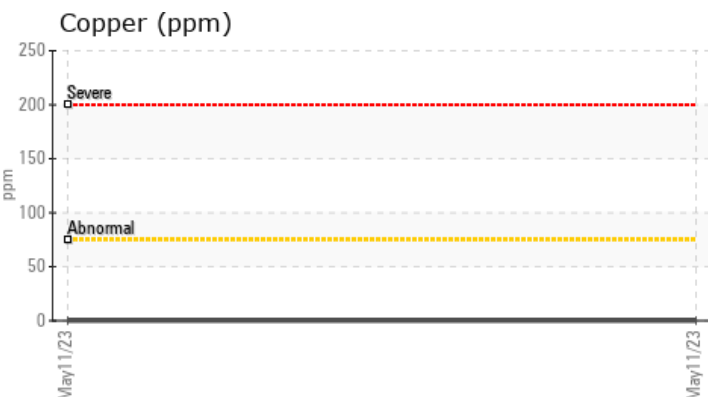
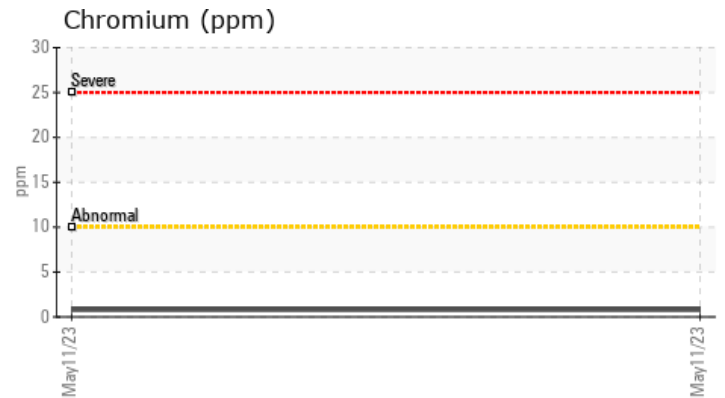
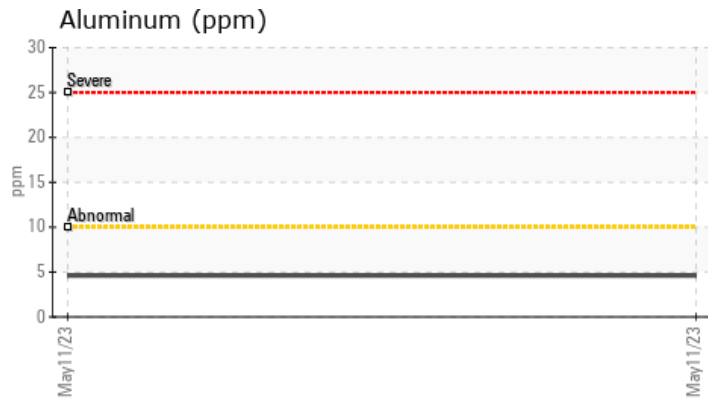
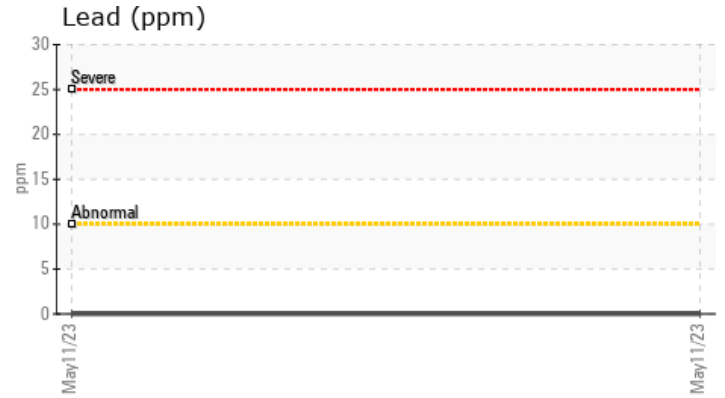
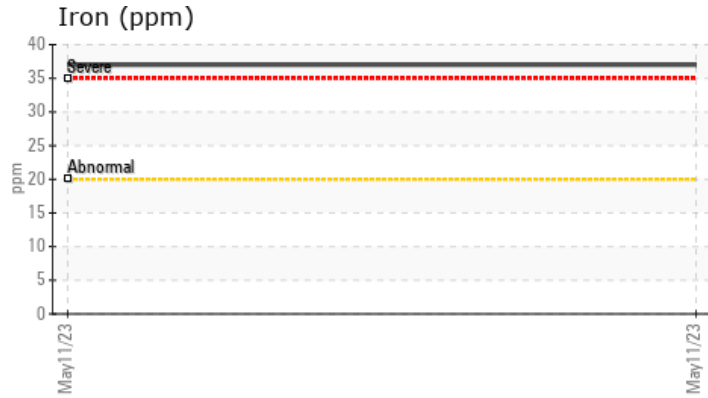
Depot: BLUFOR
Unique No: 10468785
Signed: Doug Bogart
Report Date: 15 May 2023



CONSTRUCTION EQUIPMENT



GRAPHS





CONSTRUCTION EQUIPMENT

728466 VOLVO L110H 631377 - HYDRAULIC SYSTEM



Sample No: VCP450651
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: 728466



SAMPLE INFORMATION

Sample Number	VCP450651	VCP455088	VCP425851	VCP382097
Sample Date	04 Jun 2024	06 Mar 2024	08 May 2023	03 Nov 2022
Machine Hours	9020	8503	7017	6014
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	NORMAL	SEVERE	ATTENTION	NORMAL

BLUE GOOSE GROWERS
 16059 W ORANGE AVE
 FT PIERCE, FL
 US 34945
 Contact: SERVICE MANAGER

OIL CONDITION

Visc @ 40°C	cSt	46.0	42.8	43.6	44.2
Acid Number (AN)	mg KOH/g	0.29	1.001	0.39	0.42

T: (772)461-3020
 F:

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		8616	141905	8419	4330
Particles >6µm		1366	▲ 47782	2115	754
Particles >14µm		18	▲ 2927	● 101	51
ISO 4406:1999 (c)		20/18/11	24/23/19	20/18/14	19/17/13
Silicon	ppm	1	4	4	2
Sodium	ppm	1	1	<1	0
Potassium	ppm	0	<1	<1	2

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

WEAR METALS

Iron	ppm	1	8	6	4
Copper	ppm	<1	3	3	2
Lead	ppm	0	1	2	2
Tin	ppm	0	0	0	0
Aluminum	ppm	0	1	0	0
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	0	5	7	7
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	0	0	0
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	73	170	163	192
Magnesium	ppm	<1	33	43	42
Zinc	ppm	416	494	497	481
Phosphorus	ppm	325	383	373	364
Barium	ppm	0	0	0	0
Boron	ppm	0	2	1	4

Depot: BLUFOR
Unique No: 11073892
Signed: Wes Davis
Report Date: 13 Jun 2024

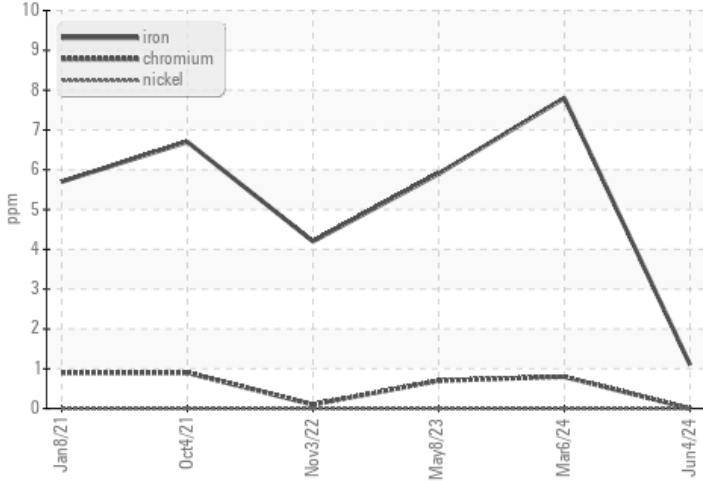


CONSTRUCTION EQUIPMENT

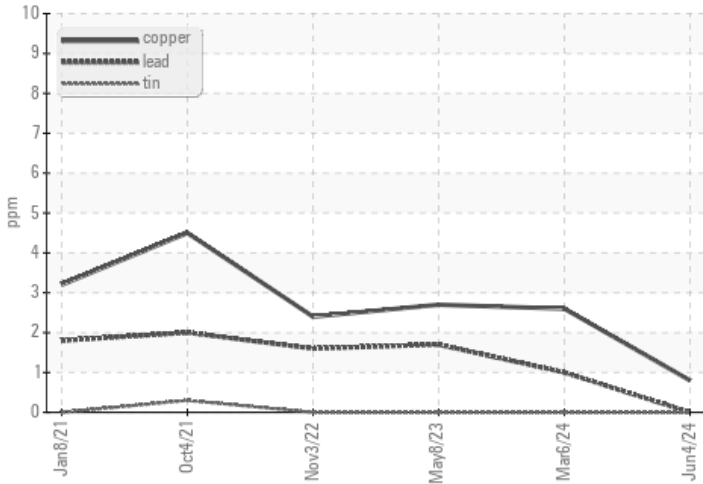


VOLVO GRAPHS

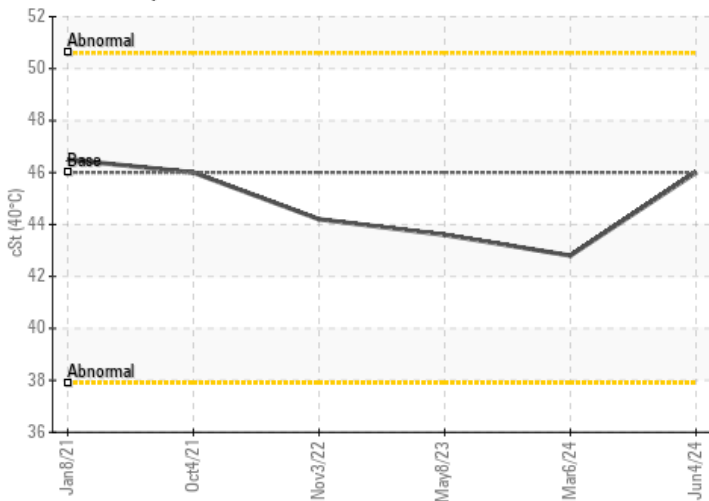
Ferrous Alloys



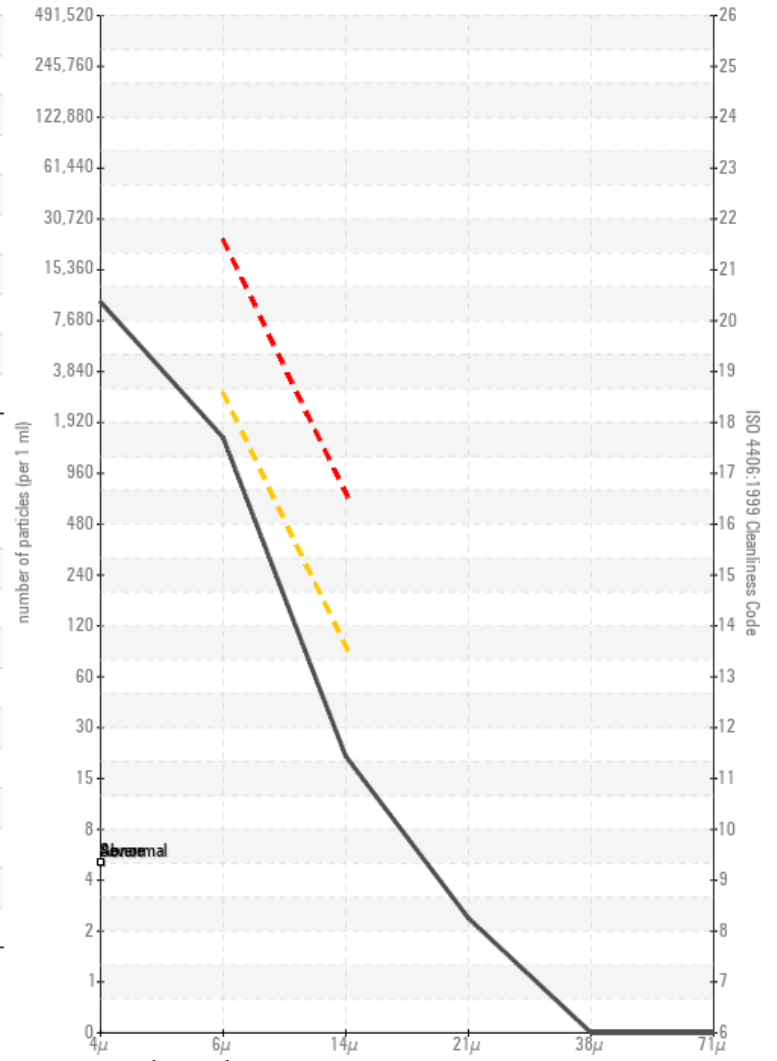
Non-ferrous Metals



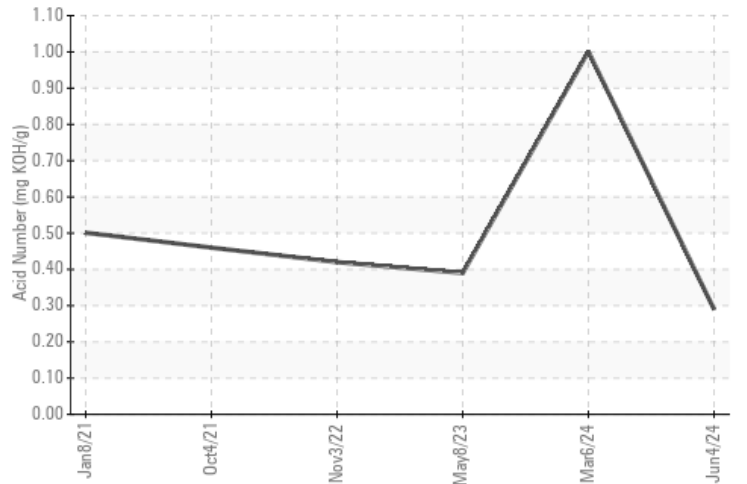
Viscosity @ 40°C



Particle Count



Acid Number





CONSTRUCTION EQUIPMENT

728466 VOLVO L110H 631377 - FRONT AXLE



Sample No: VCP454890
Oil Type: VOLVO WB 102
Job No: 728466



SAMPLE INFORMATION

Sample Number	VCP454890	VCP438366	VCP425719	VCP382098
Sample Date	04 Jun 2024	06 Mar 2024	11 May 2023	03 Nov 2022
Machine Hours	9020	8503	7017	6014
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

BLUE GOOSE GROWERS
 16059 W ORANGE AVE
 FT PIERCE, FL
 US 34945
 Contact: SERVICE MANAGER



OIL CONDITION

Visc @ 40°C	cSt	42.7	43.2	44.4	43.6
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T: (772)461-3020
 F:



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	13	15	17	11
Sodium	ppm	5	7	7	3
Potassium	ppm	<1	1	1	3

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	44	84	61	38
Copper	ppm	0	0	0	<1
Lead	ppm	0	0	0	0
Tin	ppm	<1	<1	<1	0
Aluminum	ppm	1	1	5	<1
Chromium	ppm	<1	1	1	<1
Molybdenum	ppm	2	<1	2	2
Nickel	ppm	<1	<1	<1	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	1	2	1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	3836	3680	4046	4138
Magnesium	ppm	39	25	23	20
Zinc	ppm	1585	1573	1680	1626
Phosphorus	ppm	1305	1273	1315	1255
Barium	ppm	0	0	0	0
Boron	ppm	139	121	129	122

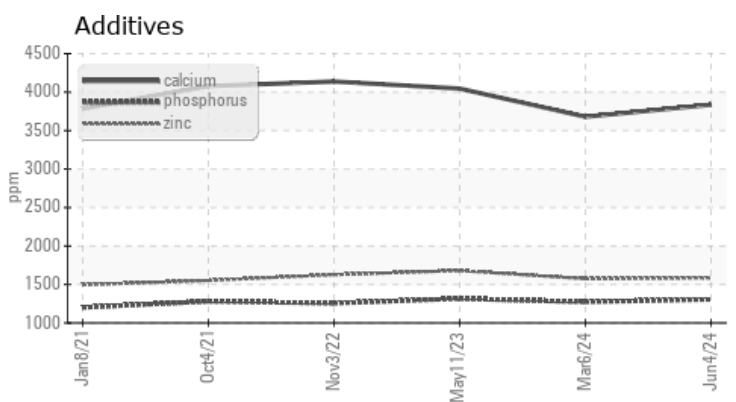
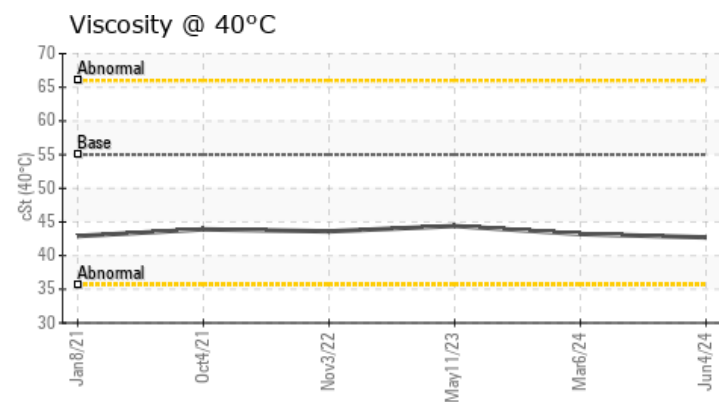
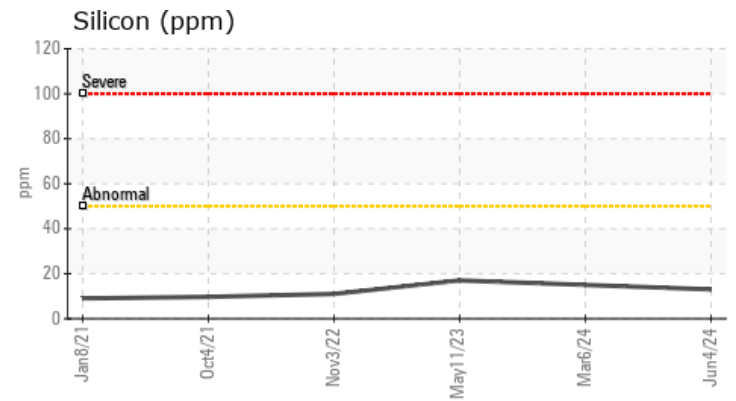
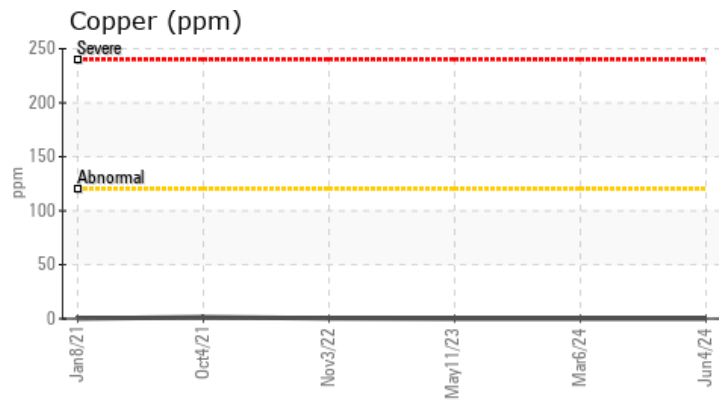
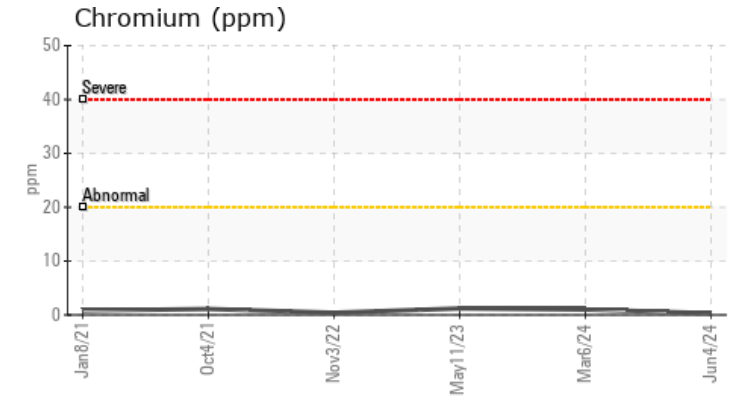
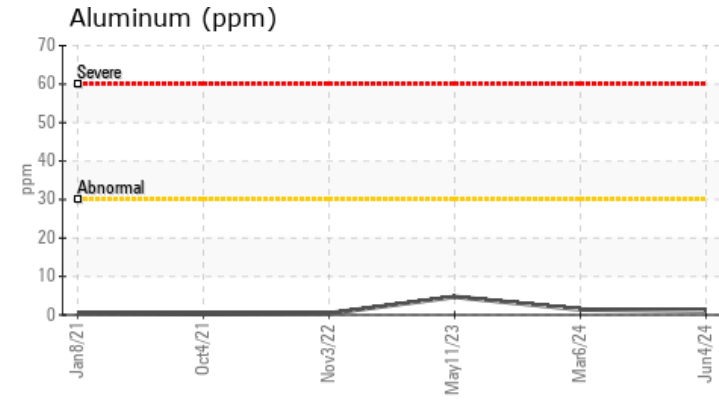
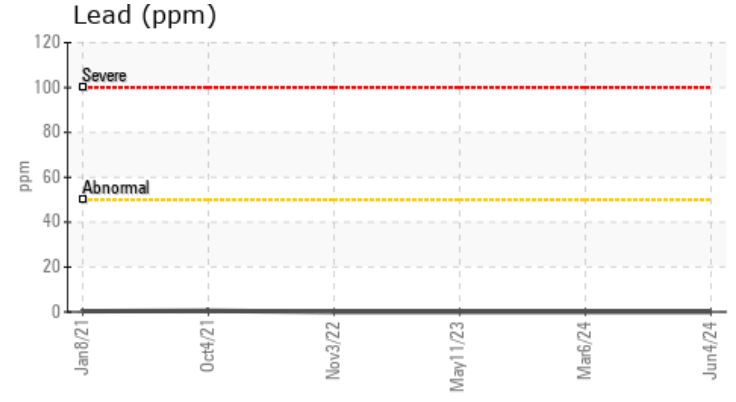
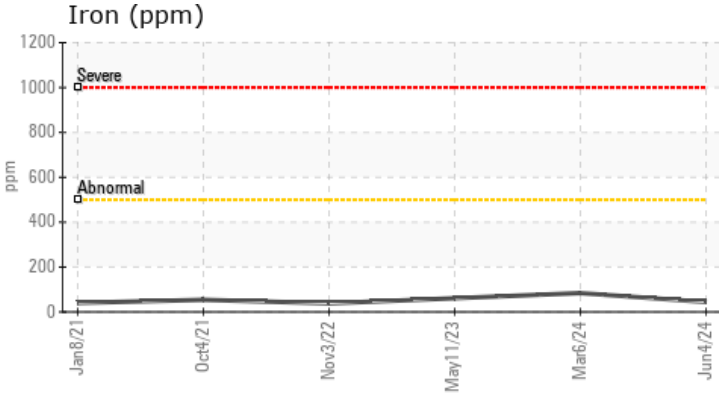
Depot: BLUFOR
Unique No: 11074411
Signed: Wes Davis
Report Date: 13 Jun 2024



CONSTRUCTION EQUIPMENT



GRAPHS





CONSTRUCTION EQUIPMENT

728466 VOLVO L110H 631377 - REAR AXLE



Sample No: VCP450854
Oil Type: VOLVO WB 102
Job No: 728466



SAMPLE INFORMATION

Sample Number	VCP450854	VCP438375	VCP382099	VCP329373
Sample Date	04 Jun 2024	06 Mar 2024	03 Nov 2022	04 Oct 2021
Machine Hours	9020	8503	6014	4412
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Not Changd	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

BLUE GOOSE GROWERS
 16059 W ORANGE AVE
 FT PIERCE, FL
 US 34945
 Contact: SERVICE MANAGER

OIL CONDITION

Visc @ 40°C	cSt	42.5	41.9	42.4	41.2
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T: (772)461-3020
 F:

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	15	13	11	10
Sodium	ppm	4	7	3	9
Potassium	ppm	0	1	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	39	54	27	39
Copper	ppm	0	<1	<1	1
Lead	ppm	0	0	0	<1
Tin	ppm	0	<1	0	<1
Aluminum	ppm	<1	1	<1	<1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	2	<1	2	2
Nickel	ppm	0	<1	0	0
Titanium	ppm	0	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	1	1	<1	1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	4022	3596	4156	4100
Magnesium	ppm	37	25	20	26
Zinc	ppm	1625	1559	1629	1558
Phosphorus	ppm	1311	1285	1268	1284
Barium	ppm	0	0	0	0
Boron	ppm	159	124	123	129

Depot: BLUFOR
Unique No: 11070554
Signed: Wes Davis
Report Date: 10 Jun 2024



CONSTRUCTION EQUIPMENT



GRAPHS

