CONSTRUCTION EQUIPMENT
VOLVO L90H 624818 - HYDRAULIC SYSTEM

Sample No: VCP452248
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No:

RIPA AND ASSOCIATES
10149 FISHER AVENUE
TAMPA, FL
US 33619
Contact: PM Services
PMServices@ripaconstruction.com
T:
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SAMPLE INFORMATION

Sample Number		**VCP452248**	VCP411634	VCP313198	VCP296369
Sample Date		**30 Jan 2024**	05 Jun 2023	14 Oct 2021	08 Dec 2020
Machine Hours		**4037**	3023	2055	983
Oil Hours		**0**	0	1500	983
Oil Changed		**N/A**	Not Changd	Not Changd	Not Changd
Sample Status		**ABNORMAL**	ABNORMAL	ABNORMAL	ABNORMAL

OIL CONDITION

Visc @ 40°C	cSt	**43.5**	43.6	43.9	43.4
Acid Number (AN)	mg KOH/g	**0.32**	0.34	0.342	0.396

CONTAMINATION

Water	%	**NEG**	NEG	NEG	NEG
Particles >4µm		**10900**	17746	---	15288
Particles >6µm		**3219**	5145	---	2963
Particles >14µm		**262**	406	---	222
ISO 4406:1999 (c)		**21/19/15**	21/20/16	---	21/19/15
Silicon	ppm	**4**	2	3	2
Sodium	ppm	**2**	1	2	1
Potassium	ppm	**2**	0	<1	0

WEAR METALS

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

ADDITIVES

Calcium	ppm	**61**	48	56	50
Magnesium	ppm	**5**	<1	<1	<1
Zinc	ppm	**412**	404	458	429
Phosphorus	ppm	**335**	331	350	308
Barium	ppm	**0**	0	0	0
Boron	ppm	**0**	0	4	2

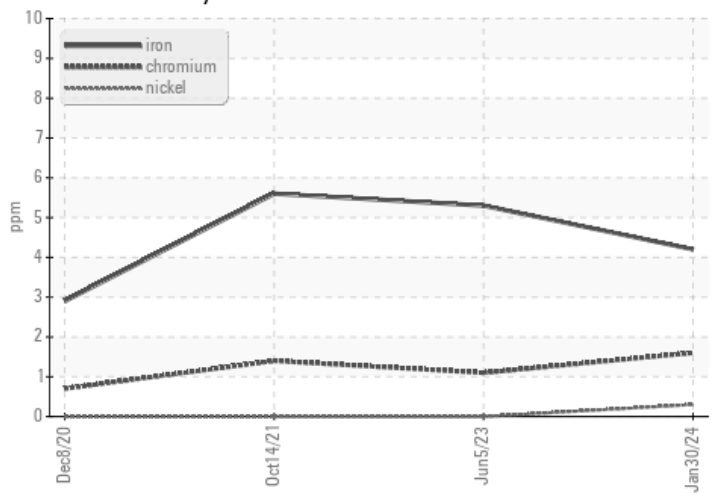
Diagnosis

No corrective action is recommended at this time. The filter 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 high amount of particulates present in the oil. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

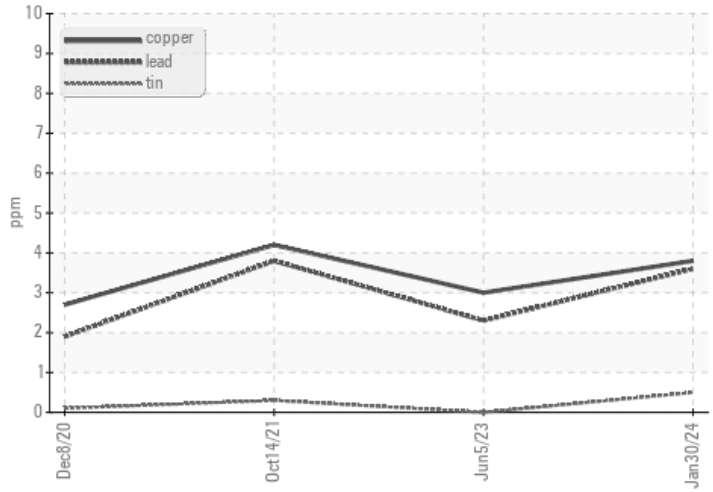
Depot: RIPTAM
Unique No: 10863375
Signed: Don Baldridge
Report Date: 08 Feb 2024

GRAPHS

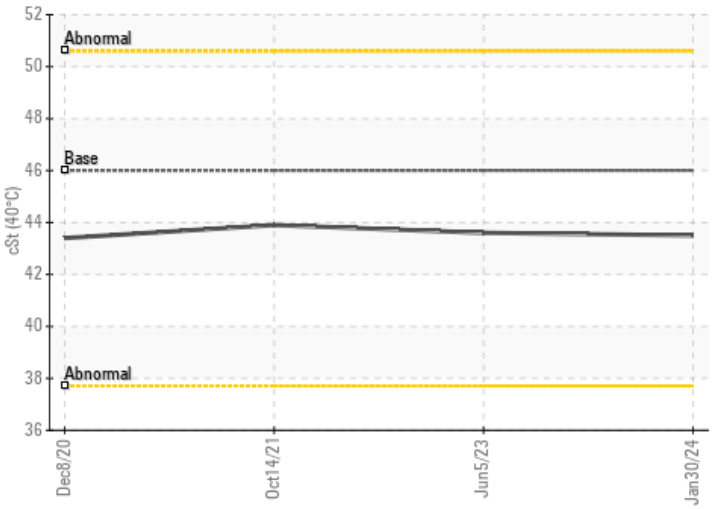
Ferrous Alloys



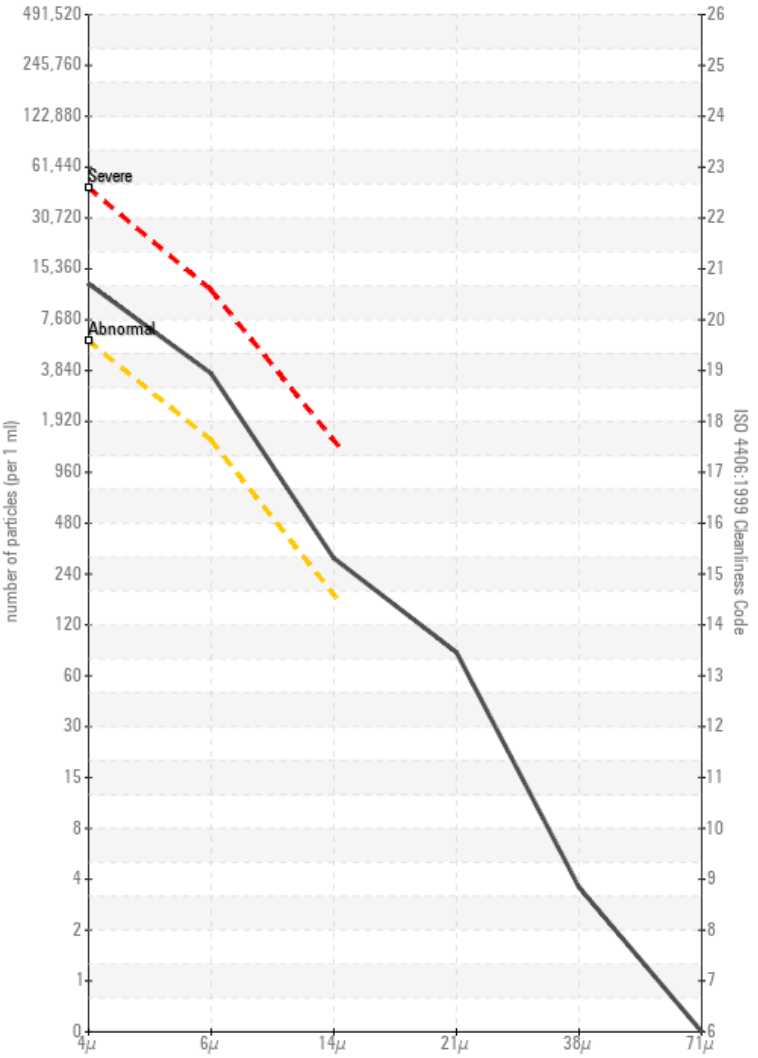
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number