



# CONSTRUCTION EQUIPMENT

## VOLVO L70H 05262376 (S/N 052623276) - DIESEL ENGINE



**Sample No:** VCP437554  
**Oil Type:** VALVOLINE 15W40  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP437554</b>	VCP437120	VCP422148	VCP364636
Sample Date	<b>06 May 2024</b>	18 Jan 2024	15 Sep 2023	09 May 2023
Machine Hours	<b>0</b>	5974	5452	4955
Oil Hours	<b>0</b>	0	497	204
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	NORMAL

**CITY CARTING**  
 221 OLD GATE LN  
 MILFORD, CT  
 US 06460  
 Contact: TAVINS BANKS  
 tavins@citycart.net  
 T: (203)223-3885  
 F:



### OIL CONDITION

Visc @ 100°C	cSt	<b>12.2</b>	12.4	12.7	12.7
Base Number (BN)	mg KOH/g	<b>6.8</b>	6.7	6.2	10.4
Oxidation (PA)	%	<b>45</b>	40	52	76



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.6</b>	0.6	1	0.2
Nitration (PA)	%	<b>63</b>	60	75	55
Sulfation (PA)	%	<b>50</b>	49	57	60
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	0.8	<1.0	<1.0
Silicon	ppm	<b>6</b>	7	8	8
Sodium	ppm	<b>2</b>	<1	2	2
Potassium	ppm	<b>0</b>	2	1	2



### WEAR METALS

Iron	ppm	<b>22</b>	11	20	14
Copper	ppm	<b>&lt;1</b>	<1	2	0
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>0</b>	<1	<1	<1
Aluminum	ppm	<b>62</b>	13	20	28
Chromium	ppm	<b>4</b>	<1	2	1
Molybdenum	ppm	<b>65</b>	42	32	47
Nickel	ppm	<b>0</b>	0	0	<1
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>2302</b>	2082	2166	1818
Magnesium	ppm	<b>142</b>	160	212	529
Zinc	ppm	<b>1035</b>	971	1103	1315
Phosphorus	ppm	<b>919</b>	844	904	1032
Barium	ppm	<b>0</b>	<1	0	0
Boron	ppm	<b>51</b>	19	13	55

### Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. We recommend an early resample to monitor this condition. The aluminum level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

**Depot:** CITMILCON  
**Unique No:** 11019668  
**Signed:** Don Baldrige  
**Report Date:** 11 May 2024

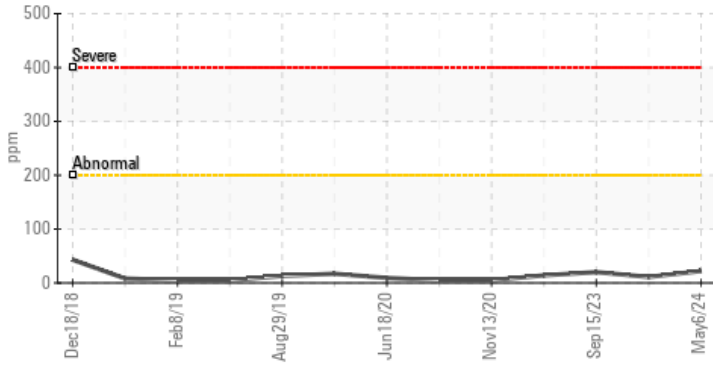


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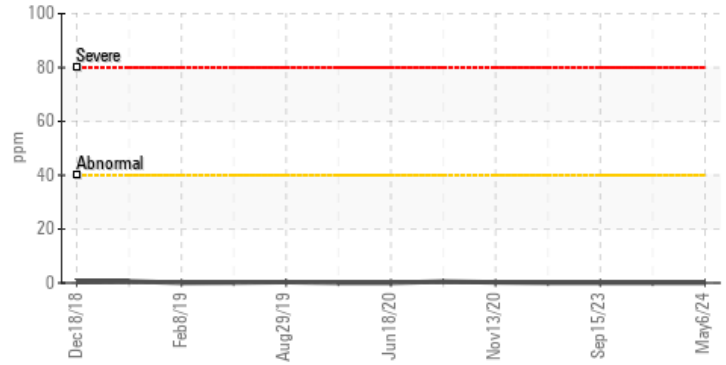


## GRAPHS

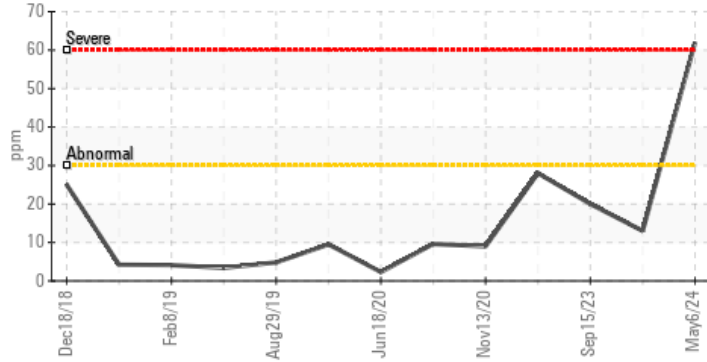
### Iron (ppm)



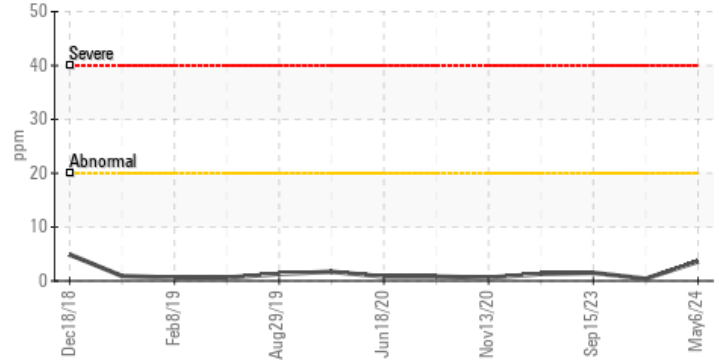
### Lead (ppm)



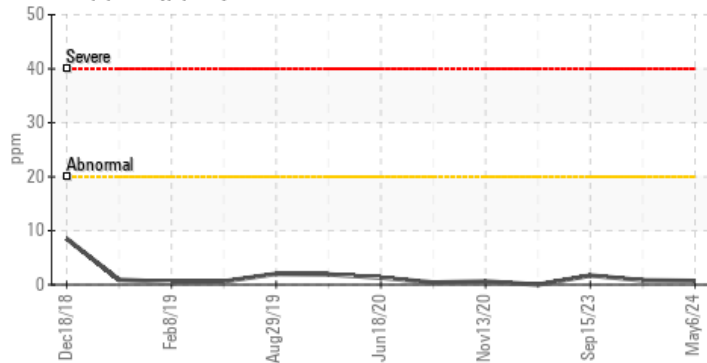
### Aluminum (ppm)



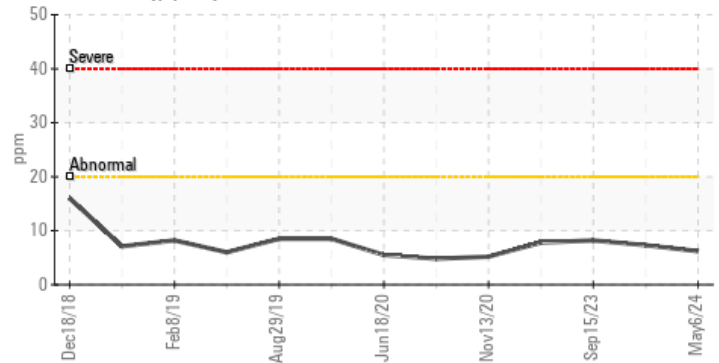
### Chromium (ppm)



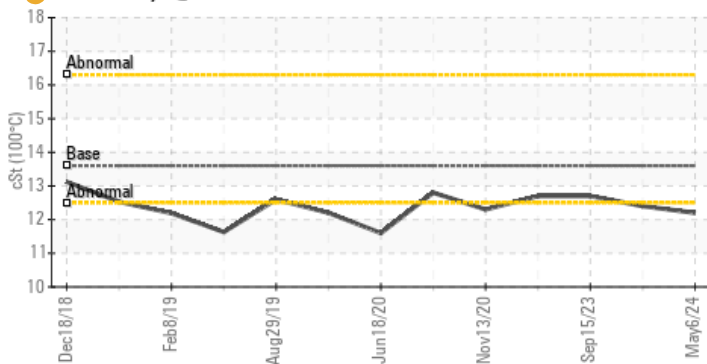
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

