



# CONSTRUCTION EQUIPMENT

## VOLVO L110H 10365 - DIESEL ENGINE



**Sample No:** VCP424028  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP424028</b>	VCP424050	VCP306239	VCP306240
Sample Date	<b>11 Mar 2024</b>	20 Sep 2023	29 Dec 2022	21 Oct 2022
Machine Hours	<b>16060</b>	15596	14586	14145
Oil Hours	<b>0</b>	0	0	500
Oil Changed	<b>N/A</b>	N/A	N/A	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	NORMAL

**ULSTER COUNTY RESOURCE RECOVERY AGENCY**  
 999 FLATBUSH AVE  
 KINGSTON, NY  
 US 12401  
 Contact: CHARLES WHITTAKER  
 cwhf@ucrra.net  
 T: (845)399-2686  
 F:



### OIL CONDITION

Visc @ 100°C	cSt	<b>13.8</b>	13.8	14.2	14.2
Base Number (BN)	mg KOH/g	<b>10.4</b>	10.2	10.3	11.4
Oxidation (PA)	%	<b>86</b>	86	94	105

### Diagnosis

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



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.4</b>	0.6	0.5	0.7
Nitration (PA)	%	<b>74</b>	80	84	98
Sulfation (PA)	%	<b>63</b>	62	65	72
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>10</b>	7	7	10
Sodium	ppm	<b>3</b>	3	4	3
Potassium	ppm	<b>10</b>	3	1	1



### WEAR METALS

Iron	ppm	<b>12</b>	14	19	20
Copper	ppm	<b>1</b>	1	<1	1
Lead	ppm	<b>3</b>	<1	2	2
Tin	ppm	<b>2</b>	<1	1	<1
Aluminum	ppm	<b>▲ 17</b>	13	12	15
Chromium	ppm	<b>1</b>	1	2	1
Molybdenum	ppm	<b>58</b>	53	55	56
Nickel	ppm	<b>2</b>	<1	3	2
Titanium	ppm	<b>&lt;1</b>	<1	0	<1
Silver	ppm	<b>&lt;1</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	<1	0	<1



### ADDITIVES

Calcium	ppm	<b>1906</b>	1705	2038	2124
Magnesium	ppm	<b>599</b>	593	627	629
Zinc	ppm	<b>1227</b>	1206	1383	1375
Phosphorus	ppm	<b>964</b>	990	1051	1145
Barium	ppm	<b>2</b>	12	0	0
Boron	ppm	<b>58</b>	33	39	33

**Depot:** ULSKIN  
**Unique No:** 10940989  
**Signed:** Sean Felton  
**Report Date:** 26 Mar 2024

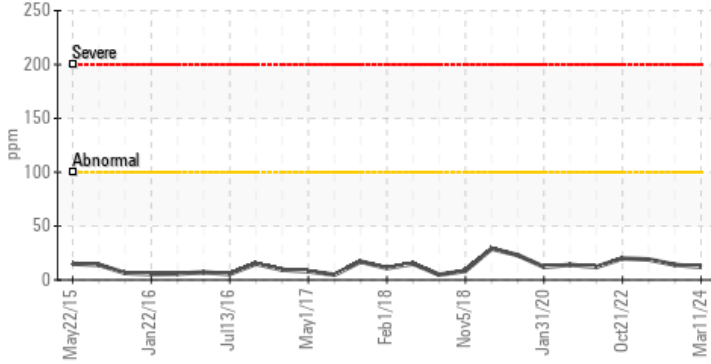


# CONSTRUCTION EQUIPMENT

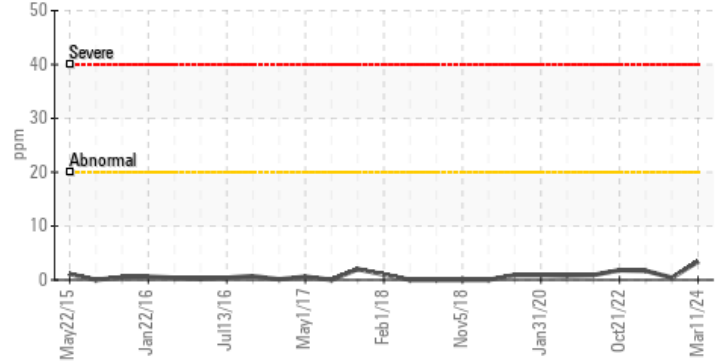


## GRAPHS

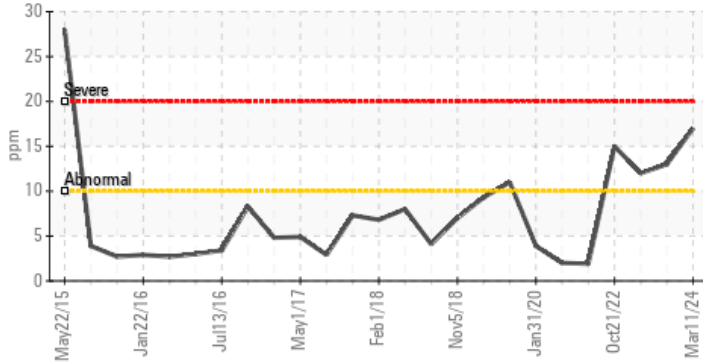
### Iron (ppm)



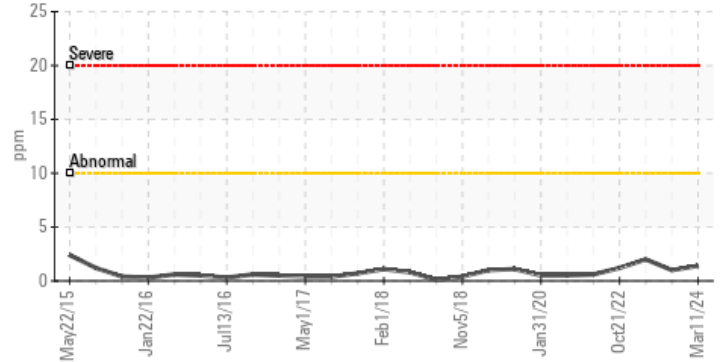
### Lead (ppm)



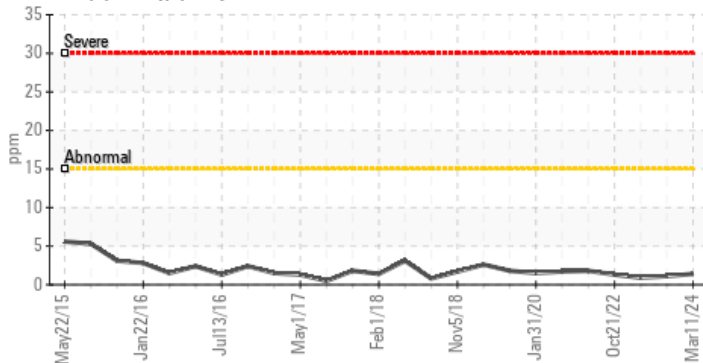
### Aluminum (ppm)



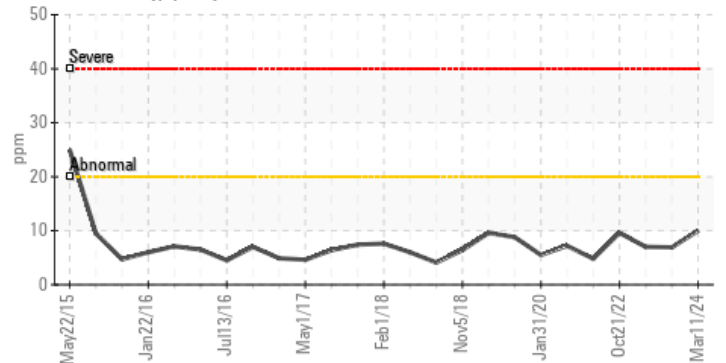
### Chromium (ppm)



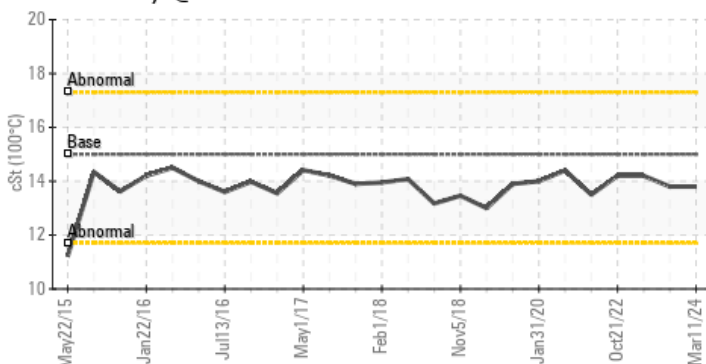
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

