



# CONSTRUCTION EQUIPMENT

## YALE FORKLIFT 4 - DIESEL ENGINE



**Sample No:** VCP408923  
**Oil Type:** MOBIL DELVAC 1300 SUPER15W40  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP408923</b>	VCP416323	VCP399943	VCP383681
Sample Date	<b>26 Oct 2023</b>	08 Aug 2023	13 Apr 2023	02 Jan 2023
Machine Hours	<b>3009</b>	2739	2504	2231
Oil Hours	<b>270</b>	235	273	229
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>15.1</b>	13.2	13.5	13.4
Base Number (BN)	mg KOH/g	<b>9.6</b>	10.5	10.6	10.2
Oxidation (PA)	%	<b>56</b>	78	82	80

### 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

Soot %	%	<b>0.9</b>	0.7	0.5	0.1
Nitration (PA)	%	<b>51</b>	54	58	52
Sulfation (PA)	%	<b>53</b>	61	61	59
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>4</b>	6	5	4
Sodium	ppm	<b>2</b>	2	3	2
Potassium	ppm	<b>2</b>	<1	0	1



### WEAR METALS

Iron	ppm	<b>20</b>	13	11	2
Copper	ppm	<b>2</b>	2	1	<1
Lead	ppm	<b>&lt;1</b>	0	0	0
Tin	ppm	<b>&lt;1</b>	<1	0	0
Aluminum	ppm	<b>3</b>	2	1	<1
Chromium	ppm	<b>&lt;1</b>	<1	<1	0
Molybdenum	ppm	<b>73</b>	42	43	43
Nickel	ppm	<b>&lt;1</b>	0	0	0
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>&lt;1</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>1277</b>	1747	1829	1604
Magnesium	ppm	<b>1130</b>	548	566	524
Zinc	ppm	<b>1441</b>	992	964	917
Phosphorus	ppm	<b>1245</b>	823	805	753
Barium	ppm	<b>4</b>	0	0	1
Boron	ppm	<b>7</b>	65	65	61

**Depot:** MARDIC  
**Unique No:** 10723240  
**Signed:** Don Baldrige  
**Report Date:** 02 Nov 2023



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## GRAPHS

