

# OIL ANALYSIS REPORT



## MCCLOSKEY 86949 - VARIABLE SPEED - DIESEL ENGINE

**Sample No:** VPA054172  
**Oil Type:** DIESEL ENGINE OIL SAE 40

### SAMPLE INFORMATION

Sample Number	<b>VPA054172</b>	VPA056298	VPA040775	VPA259086
Sample Date	<b>17 May 2024</b>	22 Feb 2024	19 Jun 2023	28 May 2020
Machine Hours	<b>377</b>	290	3930	1549
Oil Hours	<b>377</b>	290	100	369
Oil Changed	<b>Changed</b>	Changed	Changed	Not Changd
Sample Status	<b>NORMAL</b>	ABNORMAL	NORMAL	NORMAL

**MCCOURT & SONS EQUIPMENT INC**  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.8</b>	12.0	14.6	12.7
Base Number (BN)	mg KOH/g	<b>7.9</b>	9.1	9.4	---
Oxidation (PA)	%	<b>41</b>	57	63	69

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.1</b>	0.1	0.1	0.1
Nitration (PA)	%	<b>47</b>	52	49	51
Sulfation (PA)	%	<b>45</b>	53	56	58
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	0.8	<1.0	<1.0
Silicon	ppm	<b>14</b>	42	15	5
Sodium	ppm	<b>2</b>	2	1	2
Potassium	ppm	<b>7</b>	6	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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

### WEAR METALS

Iron	ppm	<b>7</b>	29	27	55
Copper	ppm	<b>9</b>	30	<1	<1
Lead	ppm	<b>0</b>	<1	0	<1
Tin	ppm	<b>&lt;1</b>	3	<1	<1
Aluminum	ppm	<b>2</b>	2	<1	1
Chromium	ppm	<b>0</b>	1	<1	<1
Molybdenum	ppm	<b>24</b>	68	58	42
Nickel	ppm	<b>&lt;1</b>	1	0	0
Titanium	ppm	<b>&lt;1</b>	<1	<1	0
Silver	ppm	<b>&lt;1</b>	<1	0	<1
Manganese	ppm	<b>1</b>	4	<1	<1
Vanadium	ppm	<b>&lt;1</b>	<1	0	0

### ADDITIVES

Calcium	ppm	<b>2053</b>	1170	1429	1331
Magnesium	ppm	<b>277</b>	862	724	526
Zinc	ppm	<b>1172</b>	1175	1207	948
Phosphorus	ppm	<b>1029</b>	955	1009	868
Barium	ppm	<b>2</b>	2	0	0
Boron	ppm	<b>51</b>	29	112	45

**Depot:** VP1121775  
**Unique No:** 11059508  
**Signed:** Jonathan Hester  
**Report Date:** 11 Jun 2024

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# VOLVO PENTA

## GRAPHS

