

OIL ANALYSIS REPORT

VOLVO PENTA

502804 ONAN B140631776 - GENSET

Sample No: VPA058192

Oil Type: CHEVRON DELO 400 MULTIGRADE 15W40

SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA058192 | --- | --- | --- |
| Sample Date | 06 Mar 2024 | --- | --- | --- |
| Machine Hours | 644 | --- | --- | --- |
| Oil Hours | 0 | --- | --- | --- |
| Oil Changed | Changed | --- | --- | --- |
| Sample Status | NORMAL | --- | --- | --- |

North Harbor Diesel Inc
720 30Th Street
ANACORTES, WA
US 98221
Contact: ED MCFARLIN
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T:
F:

OIL CONDITION

| | | | | | |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 100°C | cSt | █ 13.0 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 9.9 | --- | --- | --- |
| Oxidation (PA) | % | 59 | --- | --- | --- |

CONTAMINATION

| | | | | | |
|----------------|-----|-------|-----|-----|-----|
| Water | % | NEG | --- | --- | --- |
| Soot % | % | █ 0.1 | --- | --- | --- |
| Nitration (PA) | % | 43 | --- | --- | --- |
| Sulfation (PA) | % | 52 | --- | --- | --- |
| Glycol | % | NEG | --- | --- | --- |
| Fuel | % | < 1.0 | --- | --- | --- |
| Silicon | ppm | █ 4 | --- | --- | --- |
| Sodium | ppm | █ 0 | --- | --- | --- |
| Potassium | ppm | █ 0 | --- | --- | --- |

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 acceptable for the time in service.

WEAR METALS

| | | | | | |
|------------|-----|-------|-----|-----|-----|
| Iron | ppm | █ 1 | --- | --- | --- |
| Copper | ppm | █ 0 | --- | --- | --- |
| Lead | ppm | █ 0 | --- | --- | --- |
| Tin | ppm | █ 0 | --- | --- | --- |
| Aluminum | ppm | █ < 1 | --- | --- | --- |
| Chromium | ppm | █ 0 | --- | --- | --- |
| Molybdenum | ppm | █ 60 | --- | --- | --- |
| Nickel | ppm | █ 0 | --- | --- | --- |
| Titanium | ppm | 0 | --- | --- | --- |
| Silver | ppm | █ 0 | --- | --- | --- |
| Manganese | ppm | █ 0 | --- | --- | --- |
| Vanadium | ppm | 0 | --- | --- | --- |

ADDITIVES

| | | | | | |
|------------|-----|--------|-----|-----|-----|
| Calcium | ppm | █ 1152 | --- | --- | --- |
| Magnesium | ppm | █ 1014 | --- | --- | --- |
| Zinc | ppm | █ 1320 | --- | --- | --- |
| Phosphorus | ppm | █ 1115 | --- | --- | --- |
| Barium | ppm | █ 0 | --- | --- | --- |
| Boron | ppm | █ 4 | --- | --- | --- |

Depot: VP179089
Unique No: 10929306
Signed: Sean Felton
Report Date: 20 Mar 2024

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GRAPHS

