

OIL ANALYSIS REPORT



ROBERT SINGER VINCE D ZF HURTH 51230097384 - INBOARD - CENTER GEARBOX

Sample No: VPA048609

Oil Type: CHEVRON ATF

SAMPLE INFORMATION

Sample Number	VPA048609	---	---	---
Sample Date	27 Jul 2023	---	---	---
Machine Hours	27	---	---	---
Oil Hours	27	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

North Harbor Diesel Inc
720 30Th Street
ANACORTES, WA
US 98221
Contact: ROBBIN MURDOCK
robbin@northharbordiesel.com
T: (360)299-1904
F:

OIL CONDITION

Visc @ 40°C	cSt	■ 31.4	---	---	---
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CONTAMINATION

Silicon	ppm	▲ 25	---	---	---
Sodium	ppm	■ 4	---	---	---
Potassium	ppm	■ 1	---	---	---

Diagnosis

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal for OEM. Elemental level of silicon (Si) above normal indicating ingress of seal material. The condition of the oil is acceptable for the time in service.

WEAR METALS

PQ		■ 44	---	---	---
Iron	ppm	■ 75	---	---	---
Copper	ppm	■ 23	---	---	---
Lead	ppm	■ 1	---	---	---
Tin	ppm	■ <1	---	---	---
Aluminum	ppm	■ 5	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	<1	---	---	---
Nickel	ppm	■ 0	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	2	---	---	---
Vanadium	ppm	<1	---	---	---

ADDITIVES

Calcium	ppm	45	---	---	---
Magnesium	ppm	38	---	---	---
Zinc	ppm	136	---	---	---
Phosphorus	ppm	311	---	---	---
Barium	ppm	8	---	---	---
Boron	ppm	92	---	---	---

Depot: VP179089
Unique No: 10586744
Signed: Doug Bogart
Report Date: 06 Aug 2023

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**VOLVO
PENTA**

GRAPHS

