## **OIL ANALYSIS REPORT**

### **VOLVO PENTA**

### VOLVO PENTA 3940014882 - STARBOARD IPS

Sample No: VPA044286

Oil Type: GEAR OIL SAE 75W90

Sample Number       VPA044286            Sample Date       22 Aug 2023            Machine Hours       551            Oil Hours       10            Oil Changed       Not Changd            Sample Status       NORMAL            OIL CONDITION             Silicon       ppm       10            Sodium       ppm       0            Sodium       ppm       0            VEAR METALS             PQ       12            Iron       ppm       0            VEAR METALS             PQ       12             Iron       ppm       0 </th <th>SAMPLE INFORM</th> <th>ATION</th> <th></th> <th></th> <th></th>	SAMPLE INFORM	ATION			
Sample Date         22 Aug 2023               Machine Hours         551                Oil Hours         10                Sample Status         Not Changd               Sample Status         Not Changd               CUCONDITON         Nor MAL               Visc @ 40°C         cSt         106.9               CUTONDITON                 Solium         ppm         10               Solium         ppm         10               VEAR METALS                Iron         ppm         0               Iron         ppm			VPA044286	 	
Machine Hours       551            Oil Hours       10            Oil Changed       Not Changed            Sample Status       Nort MAL            OIL CONDITION             CUTAMINATION             Sodium       ppm       10            Sodium       ppm       0            Sodium       ppm       0            VeAR METALS              PQ       12             Icad       ppm       10             Copper       ppm       5             Icad       ppm       0             Notkel       ppm       0					
Oil Hours       10            Oil Changed       Not Changd            Sample Status       NORMAL            OIL CONDITION             OIL CONDITION             Solicon       ppm       106.9            Solitom       ppm       0            Solitom       ppm       0            Potassium       ppm       0            Sodium       ppm       0            Potassium       ppm       0            Iton       ppm       10            Copper       ppm       0            Aluminum       ppm       0            Molybdenum       ppm       0         Nickel       ppm       0 </td <td></td> <td></td> <td></td> <td></td> <td></td>					
Not Changed         Not Changed              Sample Status         NORMAL              OIL CONDITION               Visc @ 40°C         cSt         106.9              CONTAMINATION                Sodium         ppm         0              Sodium         ppm         0              Potassium         ppm         112              WEAR METALS               PQ         112              Iron         ppm         10              Copper         ppm         5              Aluminum         ppm         0              Molybdenum         ppm         0              Silver					
Sample Status         NORMAL              OIL CONDITION         Visc @ 40°C         cSt         106.9              Visc @ 40°C         cSt         106.9               CONTAMINATION                 Sodium         ppm         10               Sodium         ppm         0               Sodium         ppm         10               Potassium         ppm         112               WEAR METALS         PP         112               PQ         12                Itead         ppm         10               Aluminum         ppm         0					
OIL CONDITION           Visc @ 40°C         cSt         106.9              CONTAMINATION               Sodium         ppm         10              Sodium         ppm         0              Sodium         ppm         0              Potassim         ppm         0              WEAR METALS               PQ         12              Iron         ppm         10              Copper         ppm         0              Lead         ppm         0              Aluminum         ppm         0              Molybdenum         ppm         0              Nickel         ppm         0          <	-		-		
Visc @ 40°C         cSt         106.9               CNTAMINATION                 Sodium         ppm         10               Sodium         ppm         0               Sodium         ppm         0               Potassium         ppm         0               WEAR METALS         Visc @ 40°C         12               PQ         12                Iron         ppm         5               Copper         ppm         0               Lead         ppm         0               Aluminum         ppm         <1					
CONTAMINATION           Silicon         ppm         10             Sodium         ppm         0             Potassium         ppm         <1	OIL CONDITION				
Silicon       ppm       10            Sodium       ppm       0            Potassium       ppm       <10	Visc @ 40°C	cSt	106.9	 	
Sodium         ppm         0              Potassium         ppm         <1	CONTAMINATION	١			
Sodium         ppm         0              Potassium         ppm         <1	Silicon	ppm	10	 	
Potassium         ppm         <1              WEAR METALS              PQ         12              Iron         ppm         10              Copper         ppm         5              Lead         ppm         0              Aluminum         ppm         0              Aluminum         ppm         0              Molybdenum         ppm         <1              Nickel         ppm         0              Nickel         ppm         0              Manganese         ppm         0              AbultTVES               Calcium         ppm         10              Magnesium         ppm			0	 	
PQ       12            Iron       ppm       10            Copper       ppm       5            Lead       ppm       <1	Potassium		<b>  </b> <1	 	
PQ       12            Iron       ppm       10            Copper       ppm       5            Lead       ppm       <1	WEAR <u>Metals</u>				
Iron         ppm         10              Copper         ppm         5              Lead         ppm         <1	PO		12	 	
Copper         ppm         5              Lead         ppm         <1		maa		 	
Lead       ppm       <1				 	
Tin       ppm       0           Aluminum       ppm       0           Chromium       ppm       <1				 	
Aluminum         ppm         0              Chromium         ppm         <1			0	 	
Molybdenum         ppm         I <t< td=""><td>Aluminum</td><td>ppm</td><td>0</td><td> </td><td></td></t<>	Aluminum	ppm	0	 	
Nickel         ppm         0              Titanium         ppm         0              Silver         ppm         0              Manganese         ppm         0              Vanadium         ppm         0              ADDITIVES               Magnesium         ppm         10              Magnesium         ppm         14              Zinc         ppm         1352              Barium         ppm         0	Chromium	ppm	<b>_</b> <1	 	
Titanium         ppm         0           I           Silver         ppm         0          I         I           Manganese         ppm         2         I         I         I           Vanadium         ppm         0         I         I         I           ADDITIVES         International Internatintententernational Internatintenternational Internatinter	Molybdenum	ppm	<b></b> <1	 	
Titanium         ppm         0              Silver         ppm         0              Manganese         ppm         2              Vanadium         ppm         0              ADDITIVES               Magnesium         ppm         10              Magnesium         ppm         14              Zinc         ppm         1352              Barium         ppm         0	Nickel		0	 	
Manganese         ppm         2              Vanadium         ppm         0               ADDITIVES                 Calcium         ppm         10               Magnesium         ppm         14               Zinc         ppm         17               Phosphorus         ppm         1352               Barium         ppm         0	Titanium			 	
Manganeseppm2Vanadiumppm0ADDITIVESCalciumppm10Magnesiumppm14Zincppm17Phosphorusppm1352Bariumppm0	Silver		0	 	
ADDITIVES           Calcium         ppm         10             Magnesium         ppm         14             Zinc         ppm         17             Phosphorus         ppm         1352             Barium         ppm         0	Manganese		2	 	
Calcium         ppm         10             Magnesium         ppm         14              Zinc         ppm         17              Phosphorus         ppm         1352              Barium         ppm         0	Vanadium	ppm	0	 	
Magnesium         ppm         14              Zinc         ppm         17              Phosphorus         ppm         1352              Barium         ppm         0	ADDITIVES				
Magnesium         ppm         14              Zinc         ppm         17              Phosphorus         ppm         1352              Barium         ppm         0	Calcium	ppm	<b>1</b> 0	 	
Zinc         ppm         17              Phosphorus         ppm         1352              Barium         ppm         0				 	
Phosphorus         ppm <b>1352</b> Barium         ppm <b>0</b>	-			 	
Barium ppm <b>0</b>	Phosphorus			 	
	-		0	 	
	Boron			 	

SMART DIESEL SERVICE

102 NW 133RD AVE, UNIT 103 PLANTATION, FL US 33325 Contact: ANDRES GARMENDIA smartdieselservice@gmail.com T: (954)258-8100

#### Diagnosis

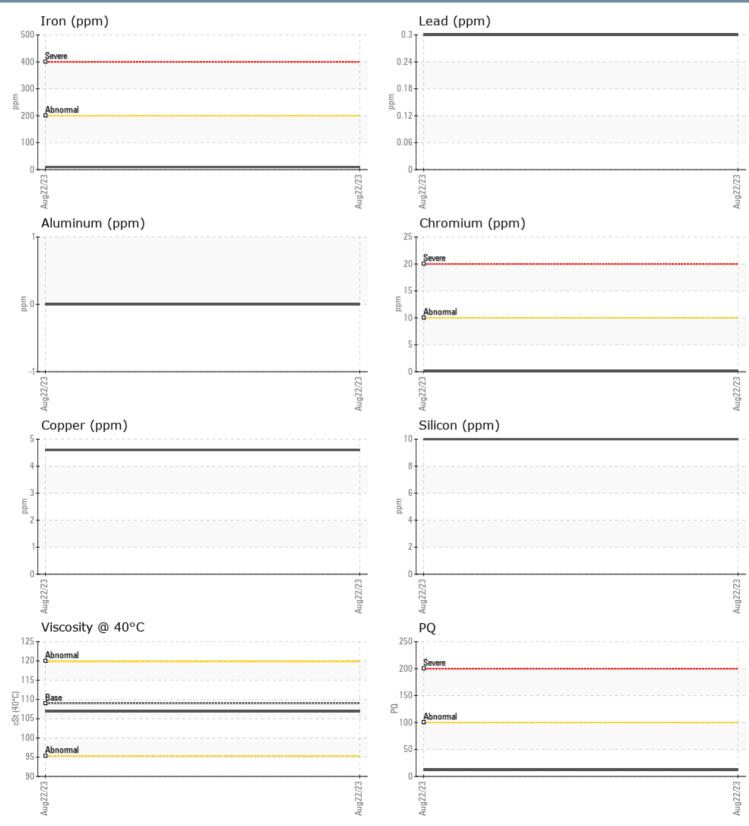
No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot:	VPSMAPLA		
Unique No:	10617805		
Signed:	Doug Bogart		
Report Date:	23 Aug 2023		

# **OIL ANALYSIS REPORT**







Report Id: VPSMAPLA [WUSCAR] 05932534 (Generated: 08/23/2023 15:24:25) Rev: 1

Contact/Location: ANDRES GARMENDIA - VPSMAPLA