# **OIL ANALYSIS REPORT**

## **VOLVO PENTA**

### VOLVO PENTA 3940016080 - STARBOARD IPS

Sample No: VPA031081

Oil Type: GEAR OIL SAE 75W90

SAMPLE INFORMATION           Sample Number         VPA031081              Sample Date         25 Jul 2023              Machine Hours         622              Oil Hours         0              Oil Changed         N/A              Sample Status         NORMAL              OIL CONDITION               OIL CONDITION               Silicon         ppm         12              Sodium         ppm         4              Vetassium         ppm         4              Vetassium         ppm         23              Iron         ppm         23              Iron         ppm         0              Iron <th></th> <th></th> <th></th> <th></th> <th></th>						
Sample Date       25 Jul 2023            Machine Hours       622            Oil Hours       0            Oil Ghanged       N/A            Sample Status       NORMAL            OIL CONDITION             Visc @ 40°C       cSt       105            CONTAMINATION              Sodium       ppm       12             Sodium       ppm       8             Veranterals               Veranterals                Iron       ppm       8             Iron       ppm       1             Iron       ppm <td< th=""><th>SAMPLE INFORM</th><th>ATION</th><th></th><th></th><th></th></td<>	SAMPLE INFORM	ATION				
Machine Hours       622             Oil Hours       0             Oil Changed       N/A             Sample Status       NORMAL             Oil CONDITION              CINTAMINATION              Sodium       ppm       12             Sodium       ppm       8             Vetassium       ppm       17             Vetassium       ppm       23             Icon       ppm       23             Icon       ppm       11             Icon       ppm       0              Icon       ppm       0	Sample Number		VPA031081	 		
Oil Hours         O              Gil Changed         N/A              Sample Status         NORMAL              OIL CONDITION               Visc @ 40°C         cSt         105              CONTAMINATION                Sodium         ppm         12              Sodium         ppm         4              Potassium         ppm         4              Iron         ppm         23              Copper         ppm         8              Lead         ppm         7              Aluminum         ppm         0              Molybdenum         ppm         <1	Sample Date		25 Jul 2023	 		
Oil Changed         N/A              Sample Status         NORMAL              OIL CONDITION         Visc @ 40°C         cSt         105              CONTAMINATION         U         U         Silicon         ppm         12              Sodium         ppm         8               Sodium         ppm         8               Verassium         ppm         8               WEAR METALS         Verassium         ppm         8              PQ         17                Icad         ppm         8               Icad         ppm         0               Icad         ppm         0               Icad			622	 		
Sample Status         NORMAL              OIL CONDITION               Visc @ 40°C         cSt         105              CONTAMINATION                Sodium         ppm         12              Sodium         ppm         8              Potassium         ppm         4              WEAR METALS                PQ         17               Iron         ppm         23              Copper         ppm         8              Lead         ppm         0              Aluminum         ppm         1              Molybdenum         ppm         1	Oil Hours		0	 		
OIL CONDITION           Vise @ 40°C         cSt         105              CONTAMINATION         File               Sodium         ppm         12              Sodium         ppm         8              Sodium         ppm         4              VEAR METALS         PQ         17              Iron         ppm         23              Copper         ppm         8              Iron         ppm         0              Copper         ppm         0              Lead         ppm         7              Aluminum         ppm         7              Molybdenum         ppm         1              Nickel         ppm         3	Oil Changed		N/A	 		
OIL CONDITION           Visc @ 40°C         cSt         105              CONTAMINATION         Feature for the formed fo	Sample Status		NORMAL	 		
Visc @ 40°C       cSt       105            CONTAMINATION						
CONTAMINATION           Silicon         ppm         12              Sodium         ppm         8              Potassium         ppm         4              WEAR METALS               PQ         117              Iron         ppm         23              Lead         ppm         11              Lead         ppm         7              Aluminum         ppm         7              Molybdenum         ppm         0              Nickel         ppm         0              Silver         ppm         0              Magaese         ppm         3              Vanadium         ppm         32	UIL LUNDITION					
Silicon       ppm       12            Sodium       ppm       8            Potassium       ppm       4            WEAR METALS             PQ       17            Iron       ppm       23            Copper       ppm       8            Lead       ppm       0            Aluminum       ppm       7            Molybdenum       ppm       0            Nickel       ppm       0            Silver       ppm       0            Manganese       ppm       3            Magnesium       ppm       32            Magnesium       ppm       32            Phosphorus	Visc @ 40°C	cSt	105	 		
Sodium         ppm         8              Potassium         ppm         4              WEAR METALS               PQ         17              Iron         ppm         23              Copper         ppm         8              Lead         ppm         <1	CONTAMINATION	I				
Sodium         ppm         8              Potassium         ppm         4              WEAR METALS               PQ         17              Iron         ppm         23              Copper         ppm         8              Lead         ppm         <1	Silicon	ppm	12	 		
Potassium         ppm         4              WEAR METALS               PQ         17              Iron         ppm         23              Copper         ppm         8              Lead         ppm         0              Aluminum         ppm         7              Aluminum         ppm         7              Aluminum         ppm         7              Aluminum         ppm         0              Molybdenum         ppm         0              Nickel         ppm         0              Maganese         ppm         3              Magnesium         ppm         32 <th< td=""><td></td><td></td><td></td><td> </td><td></td></th<>				 		
PQ         17             Iron         ppm         23             Copper         ppm         8             Lead         ppm         <1				 		
PQ       17            Iron       ppm       23            Copper       ppm       8            Lead       ppm       <1		PP		 		
Iron       ppm       23            Copper       ppm       8            Lead       ppm       <1	WEAR METALS					
Copper         ppm         8             Lead         ppm         <1	PQ		<b>1</b> 7	 		
Copper       ppm       8            Lead       ppm       <1	Iron	ppm	23	 		
Lead         ppm         <1              Tin         ppm         0              Aluminum         ppm         7              Aluminum         ppm         0              Molybdenum         ppm              Molybdenum         ppm              Nickel         ppm               Silver         ppm         0               Manganese         ppm         3              Vanadium         ppm         16              Magnesium         ppm         32              Magnesium         ppm         1451              Phosphorus         ppm         1451	Copper		8	 		
Tin       ppm       0            Aluminum       ppm       7            Aluminum       ppm       0            Chromium       ppm       0            Molybdenum       ppm       <11            Nickel       ppm       0             Titanium       ppm       0             Silver       ppm       0             Manganese       ppm       33             Vanadium       ppm       16             Magnesium       ppm       32             Magnesium       ppm       32             Phosphorus       ppm       1451             Barium       ppm       4			<1	 		
Aluminum       ppm       7            Chromium       ppm       0            Molybdenum       ppm       <1            Nickel       ppm       <1            Nickel       ppm       <1            Titanium       ppm       0            Manganese       ppm       0            Vanadium       ppm< <th>&lt;1</th> ADDITIVES             Magnesium       ppm       32            Magnesium       ppm       32            Phosphorus       ppm       1451            Barium       ppm       4	<1	Tin		0	 	
Chromium         ppm         0              Molybdenum         ppm         <1	<1	Aluminum		7	 	
Molybdenum         ppm         <1              Nickel         ppm         <1	Chromium		0	 		
Nickel         ppm         <1              Titanium         ppm         0               Silver         ppm         0               Manganese         ppm         3               Vanadium         ppm         <1               ADDITIVES   <	Molybdenum			 		
Titanium         ppm         0              Silver         ppm         0              Manganese         ppm         3              Vanadium         ppm         <1				 		
Silver         ppm         0              Manganese         ppm         3               Vanadium         ppm         <1				 		
Manganese Vanadium         ppm         3              Vanadium         ppm         <1               ADDITIVES                 Calcium         ppm         16               Magnesium         ppm         32               Zinc         ppm         22               Phosphorus         ppm         1451               Barium         ppm         4				 		
Vanadium         ppm         <1              ADDITIVES                Calcium         ppm         16               Magnesium         ppm         32               Zinc         ppm         22               Phosphorus         ppm         1451               Barium         ppm         4				 		
ADDITIVES           Calcium         ppm         16              Magnesium         ppm         32              Zinc         ppm         22              Phosphorus         ppm         1451              Barium         ppm         4	5		—	 		
Calcium         ppm         16             Magnesium         ppm         32              Zinc         ppm         22              Phosphorus         ppm         1451              Barium         ppm         4				 		
Magnesium         ppm         32              Zinc         ppm         22              Phosphorus         ppm         1451              Barium         ppm         4	ADDITIVES					
Zinc         ppm         22              Phosphorus         ppm         1451              Barium         ppm         4	Calcium	ppm	<b>1</b> 6	 		
Phosphorus         ppm         1451              Barium         ppm         1451	Magnesium	ppm	32	 		
Barium ppm <b>4</b>	Zinc	ppm	22	 		
	Phosphorus	ppm	<b>1451</b>	 		
Boron ppm <b>1402</b>	Barium	ppm	4	 		
	Boron	ppm	<b>402</b>	 		

#### SUNCOAST DIESEL MARINE

6341 PORTER ROAD, SUITE 6 SARASOTA, FL US 34240 Contact: SERVICE MANAGER info@suncoastdmi.com T: (941)342-0033 F:

### 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 condition of the oil is acceptable for the time in service.

 Depot:
 VP705283

 Unique No:
 10578235

 Signed:
 Don Baldridge

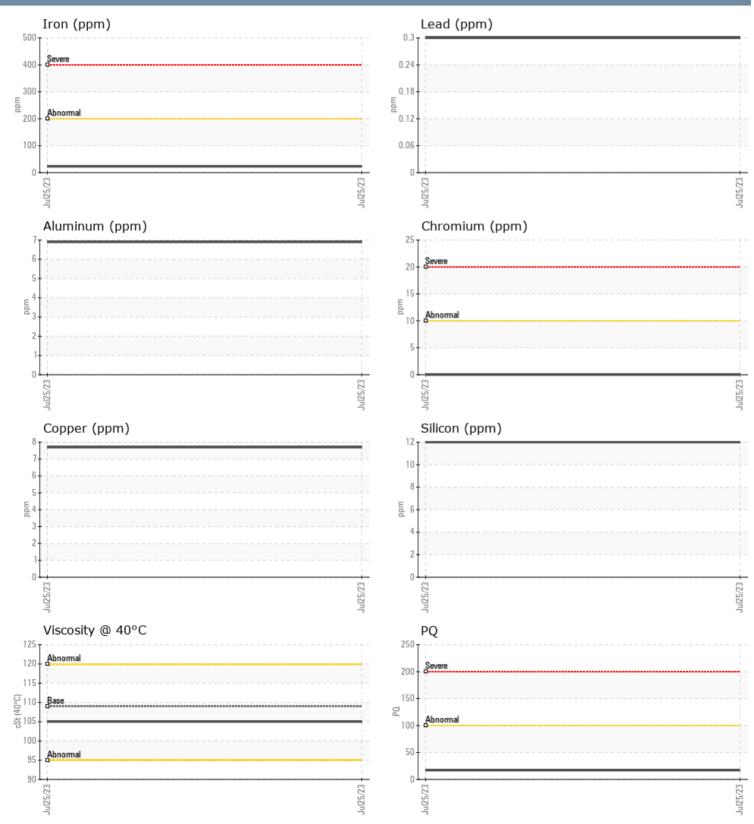
 Report Date:
 01 Aug 2023

Contact/Location: SERVICE MANAGER - VP705283

# **OIL ANALYSIS REPORT**



#### GRAPHS



Report Id: VP705283 [WUSCAR] 05911583 (Generated: 08/01/2023 15:12:02) Rev: 1

Contact/Location: SERVICE MANAGER - VP705283