

SPM689631 ALTER ROCK SENNEBOGEN 835ME 835.0.3333 - DIESEL ENGIN

Sample No: VCP443799

Oil Type: DIESEL ENGINE OIL SAE 15W40

**Job No:** SPM689631 ALTER ROCK

VOLVO			 	
SAMPLE II	NFORMATION			
Sample Number		VCP443799	 	
Sample Date		23 Apr 2024	 	
Machine Hours		344	 	
Oil Hours		0	 	
Oil Changed		Not Changd	 	
Sample Status		ATTENTION	 	
OIL CONDI	TION			
Visc @ 100°C	cSt	11.1	 	
Base Number (BN)		<b>■7.3</b>	 	
Oxidation (PA)	%	65	 	
VOLVO				
CONTAMII	NATION			
Water	%	NEG	 	
Soot %	%	■0.1	 	
Nitration (PA)	%	78	 	
Sulfation (PA)	%	53	 	
Glycol	%	NEG	 	
Fuel	%	<b>1.8</b>	 	
Silicon	ppm	<b>14</b>	 	
Sodium	ppm	<b>■</b> 4	 	
Potassium	ppm	<b>25</b>	 	
WEAR ME	TALS			
Iron	ppm	<b>■15</b>	 	
Copper	ppm	■13	 	
Lead	ppm	<b>2</b>	 	
Tin	ppm	1	 	
Aluminum	ppm	<u> </u>	 	
Chromium	ppm	<b>-</b> <1	 	
Molybdenum	ppm	<b>79</b>	 	
Nickel	ppm	O	 	



ALTA EQUIPMENT CO - ORLAND PARK 5000 INDUSTRIAL HWY GARY, IN US 46406 Contact: MARK DEROSA mark.derosa@altg.com T: (248)356-5200

### Diagnosis

F:

No corrective action is recommended at this time. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Depot:VOLVO8885Unique No:11016903Signed:Jonathan HesterReport Date:16 May 2024

**0** 

**■**0

**6** 

**2140** 

**107** 

**7** 

**62** 

■ 1150 ■ 970

ppm

**ADDITIVES** 

Titanium

Manganese

Vanadium

Calcium

Zinc

Barium

Boron

Magnesium

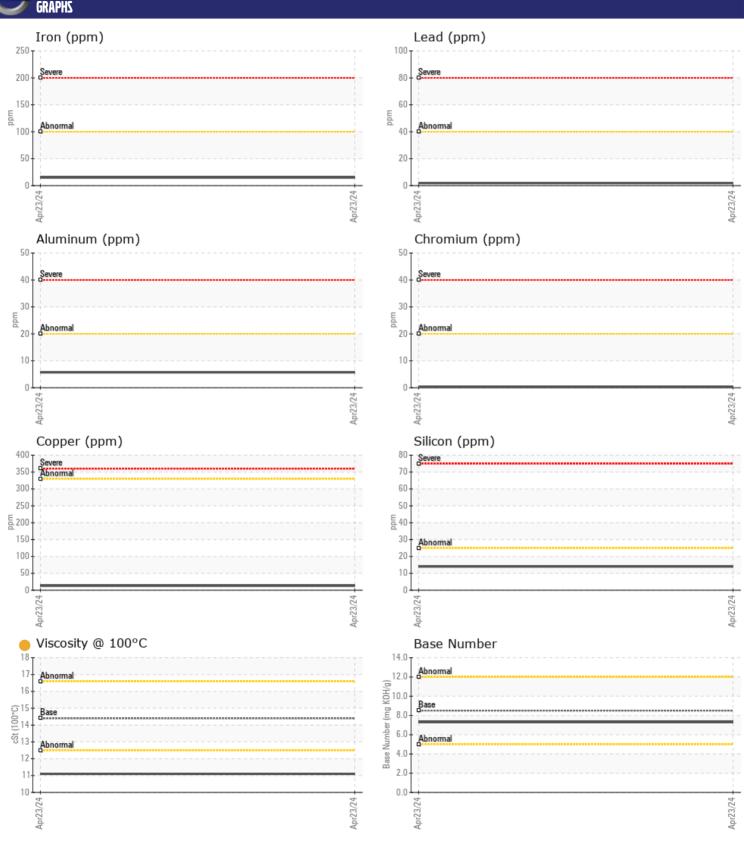
Phosphorus

Silver









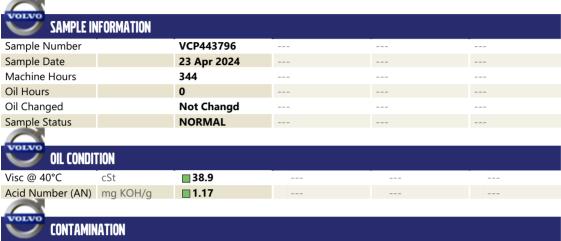


CONSTRUCTION EQUIPMENT

SPM689631 ALTER ROCK SENNEBOGEN 835ME 835.0.3333 - HYDRA

**Sample No:** VCP443796

Oil Type: **AW HYDRAULIC OIL ISO 46** Job No: SPM689631 ALTER ROCK



CONTAM	INATION			
Water	%	NEG	 	
Particles >4µm		<b>2246</b>	 	
Particles >6µm		<b>295</b>	 	
Particles >14µm		<b>16</b>	 	
ISO 4406:1999 (c)		18/15/11	 	
Silicon	ppm	<b>■</b> 2	 	
Sodium	ppm	<b>0</b>	 	
Potassium	ppm	<b>2</b>	 	

VOLVO	METALC			
WEAKI	METALS			
Iron	ppm	<b>2</b>	 	
Copper	ppm	<b>2</b>	 	
Lead	ppm	<b>■&lt;1</b>	 	
Tin	ppm	<b>■</b> 0	 	
Aluminum	ppm	<b>2</b>	 	
Chromium	ppm	<b>■</b> <1	 	
Molybdenum	ppm	<b>■&lt;1</b>	 	
Nickel	ppm	<b>■</b> 0	 	
Titanium	ppm	<1	 	
Silver	ppm	0	 	
Manganese	ppm	<b>-&lt;</b> 1	 	
Vanadium	ppm	0	 	

ADDITI	VES			
Calcium	ppm	<b>1286</b>	 	
Magnesium	ppm	<b>5</b>	 	
Zinc	ppm	<b>743</b>	 	
Phosphorus	ppm	<b>684</b>	 	
Barium	ppm	<b>0</b>	 	
Boron	ppm	<b>■</b> 0	 	



### **ALTA EQUIPMENT CO - ORLAND PARK** 5000 INDUSTRIAL HWY

GARY, IN US 46406 Contact: MARK DEROSA mark.derosa@altg.com T: (248)356-5200 F:

### Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

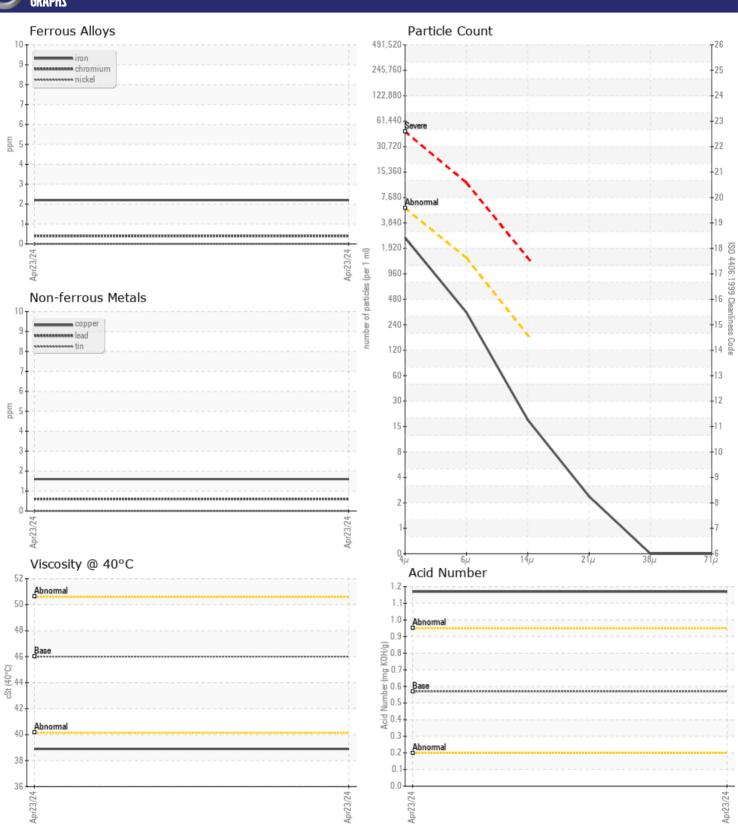
Depot: VOLVO8885 **Unique No:** 11017147 Signed: Don Baldridge Report Date: 08 May 2024







### GRAPHS





CONSTRUCTION EQUIPMENT

SPM689631 ALTER ROCK SENNEBOGEN 835ME 835.0.3333 - LEFT

Sample No: VCP443805

Oil Type: **GEAR OIL ISO 220** 

Job No: SPM689631 ALTER ROCK

SAMPLE	INFORMATIO	N		
Sample Number	-	VCP443805	 	
Sample Date		23 Apr 2024	 	
Machine Hours		344	 	
Oil Hours		0	 	
Oil Changed		Changed	 	
Sample Status		NORMAL	 	
OIL CON	DITION			
Visc @ 40°C	cSt	<b>197</b>	 	
CONTAN	MINATION			
Water	%	NEG	 	
Silicon	ppm	<b>■</b> 5	 	
Sodium	ppm	<b>■&lt;1</b>	 	
Potassium	ppm	<b>1</b>	 	
WEAR N	METALS			



WEAR	METALS			
Iron	ppm	<b>138</b>	 	
Copper	ppm	■37	 	
Lead	ppm	<b>■&lt;1</b>	 	
Tin	ppm	<b>4</b>	 	
Aluminum	ppm	<b>2</b>	 	
Chromium	ppm	<b>1</b>	 	
Molybdenum	ppm	<b>■&lt;1</b>	 	
Nickel	ppm	<b>■&lt;1</b>	 	
Titanium	ppm	<1	 	
Silver	ppm	0	 	
Manganese	ppm	<b>2</b>	 	
Vanadium	ppm	0	 	

ADDIT	ZZ			
Calcium	ppm	<b>20</b>	 	
Magnesium	ppm	<b>■&lt;1</b>	 	
Zinc	ppm	<b>25</b>	 	
Phosphorus	ppm	<b>401</b>	 	
Barium	ppm	<b>0</b>	 	
Boron	nnm	<b>■24</b>	 	

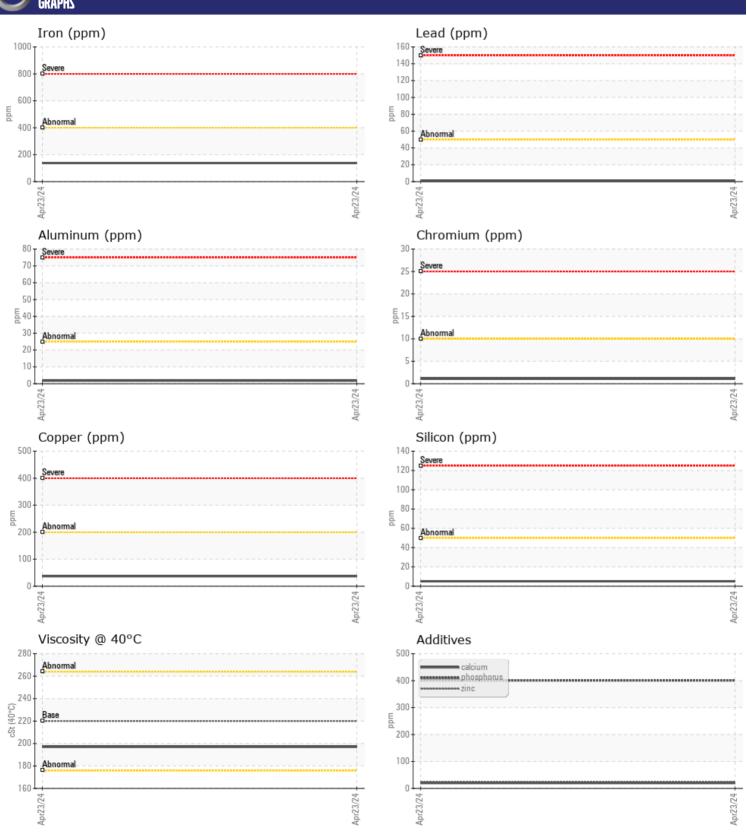
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: VOLVO8885 **Unique No:** 11017794 Signed: Wes Davis Report Date: 08 May 2024











Sample No: VCP443795

Oil Type: GEAR OIL ISO 220

**Job No:** SPM689631 ALTER ROCK

SAMPLE	INFORMATION			
Sample Number		VCP443795	 	
Sample Date		23 Apr 2024	 	
Machine Hours		344	 	
Oil Hours		0	 	
Oil Changed		Changed	 	
Sample Status		NORMAL	 	
Sample Status		HORWAL		
VOLVO				
OIL COND	DITION			
Visc @ 40°C	cSt	<b>203</b>	 	
VOLVO				
CONTAM	INATION			
Water	%	NEG	 	
Silicon	ppm	<b>6</b>	 	
Sodium	ppm	<b>1</b>	 	
Potassium	ppm	<b>■</b> 2	 	
VOLVO				
WEAR M	ETALS			
Iron	ppm	<b>425</b>	 	
Copper	ppm	37	 	
Lead	ppm	<1	 	
Tin	ppm	<b>4</b>	 	
Aluminum	ppm	<b>2</b>	 	
Chromium	ppm	<u> </u>	 	
Molybdenum	ppm	<b>-</b> <1	 	
Nickel	ppm	<b>■</b> <1	 	
Titanium	ppm	<1	 	
Silver	ppm	0	 	
Manganese	ppm	<b>5</b>	 	
Vanadium	ppm	0	 	
ADDITIV	77			
	<del>7</del> 7			
Calcium	ppm	<b>8</b>	 	
Magnesium	ppm	<b>■</b> <1	 	
Zinc	ppm	<b>45</b>	 	
Phosphorus	ppm	<b>400</b>	 	
Barium	ppm	<b>5</b>	 	
Boron	ppm	■20	 	



ALTA EQUIPMENT CO - ORLAND PARK 5000 INDUSTRIAL HWY GARY, IN US 46406 Contact: MARK DEROSA mark.derosa@altg.com T: (248)356-5200 F:

### Diagnosis

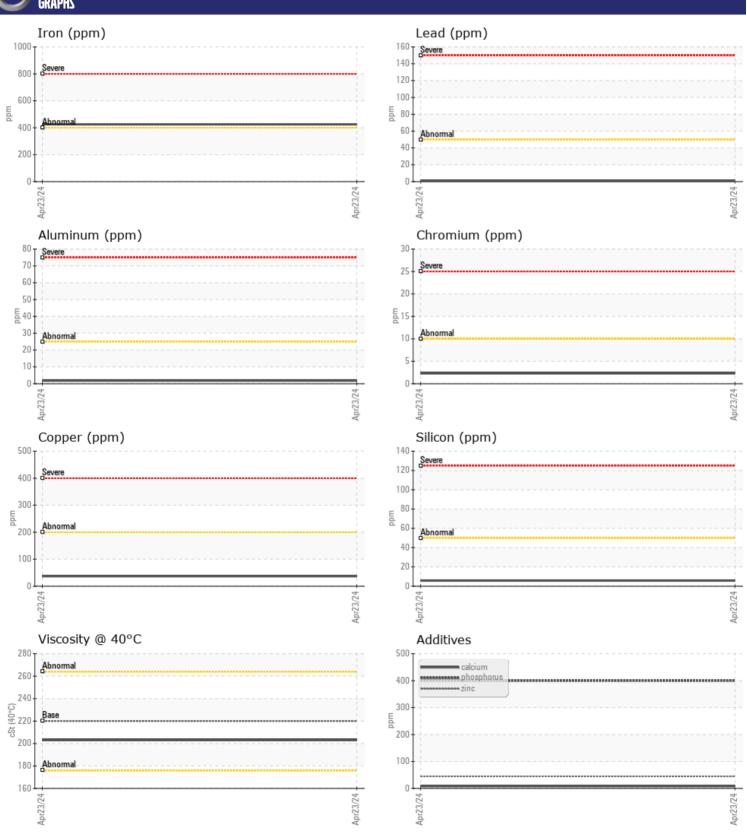
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot:VOLVO8885Unique No:11017763Signed:Don BaldridgeReport Date:09 May 2024











Sample No: VCP443792

Oil Type: GEAR OIL SAE 80W90

Job No: SPM689631 ALTER ROCK

SAMPLE	INFORMATION			
Sample Number		VCP443792	 	
Sample Date		23 Apr 2024	 	
Machine Hours		344	 	
Oil Hours		0	 	
Oil Changed		Changed	 	
Sample Status		NORMAL	 	
Sample Status		NORWAL	 	
VOLVO				
OIL CON	DITION			
Visc @ 40°C	cSt	<b>189</b>	 	
		_		
VOLVO	IINATION			
	<u>IINATION</u>			
Water	%	NEG	 	
Silicon	ppm	<b>6</b>	 	
Sodium	ppm	■ 17	 	
Potassium	ppm	■3	 	
WEAR M	IFTAI S			
_		= 204		
Iron	ppm	■381	 	
Copper	ppm	<b>131</b>	 	
Lead	ppm	<b>1</b>	 	
Tin	ppm	<b>■</b> <1	 	
Aluminum	ppm	<b>6</b>	 	
Chromium	ppm	<b>4</b>	 	
Molybdenum	ppm	<b>1</b>	 	
Nickel	ppm	<b>1</b>	 	
Titanium	ppm	<1	 	
Silver	ppm	0	 	
Manganese	ppm	<b>1</b> 5	 	
Vanadium	ppm	0	 	
VOLVO			 	
<b>ADDITIV</b>	ES			
Calcium	ppm	<b>□</b> 36	 	
Magnesium	ppm	■3	 	
Zinc	ppm	<b>103</b>	 	
Phosphorus	ppm	■ 1851	 	
Barium	ppm	<b>477</b>	 	
Boron	ppm	<b>4</b>	 	
DOTOTI	ppiii			



ALTA EQUIPMENT CO - ORLAND PARK 5000 INDUSTRIAL HWY GARY, IN US 46406 Contact: MARK DEROSA mark.derosa@altg.com T: (248)356-5200 F:

### Diagnosis

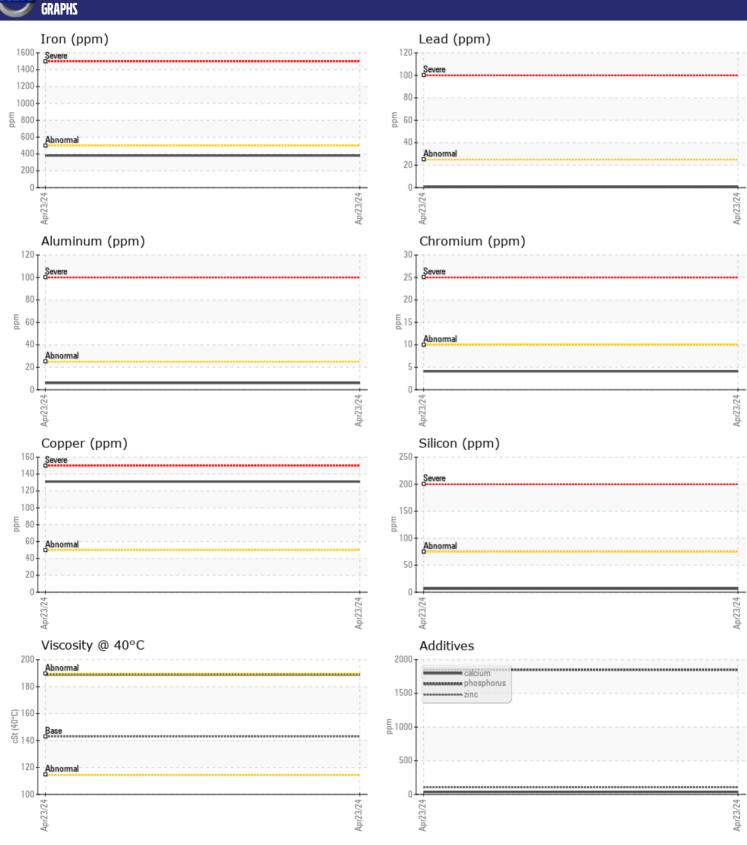
The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot:VOLVO8885Unique No:11017782Signed:Don BaldridgeReport Date:09 May 2024











Sample No: VCP443804

Oil Type: GEAR OIL SAE 80W90

Job No: SPM689631 ALTER ROCK

SAMPLE	INFORMATIO	N		
Sample Number		VCP443804	 	
Sample Date		23 Apr 2024	 	
Machine Hours		344	 	
Oil Hours		0	 	
Oil Changed		Changed	 	
Sample Status		NORMAL	 	
VOLVO				
OIL CON	DITION			
Visc @ 40°C	cSt	□184	 	
		_		
VOLVO	AND TION			
LUNIAN	MINATION			
Water	%	NEG	 	
Silicon	ppm	<b>■</b> 3	 	
Sodium	ppm	<b>■&lt;1</b>	 	
Potassium	ppm	<b>■</b> <1	 	
VOLVO				
WEAR N	AETAL C			
_	JE I ALS			
Iron	ppm	■10	 	
Copper	ppm	<b>■</b> 8	 	
Lead	ppm	<b></b>	 	
Tin	ppm	<b>■</b> <1	 	
Aluminum	ppm	■2	 	
Chromium	ppm	<b>■&lt;1</b>	 	
Molybdenum	ppm	<b></b>	 	
Nickel	ppm	<b>■&lt;1</b>	 	
Titanium	ppm	<1	 	
Silver	ppm	0	 	
Manganese	ppm	<b>-&lt;</b> 1	 	
Vanadium	ppm	0	 	
ADDITIV	/ES			
Calcium	ppm	<b>11</b>	 	
Magnesium	ppm	<b>2</b>	 	
Zinc	ppm	<b>6</b>	 	
Phosphorus	ppm	<b>1159</b>	 	
Barium	ppm	■370	 	
Boron	ppm	<b>3</b>	 	
201011	PPIII			



ALTA EQUIPMENT CO - ORLAND PARK 5000 INDUSTRIAL HWY GARY, IN US 46406 Contact: MARK DEROSA mark.derosa@altg.com T: (248)356-5200 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:
 VOLVO8885

 Unique No:
 11017780

 Signed:
 Wes Davis

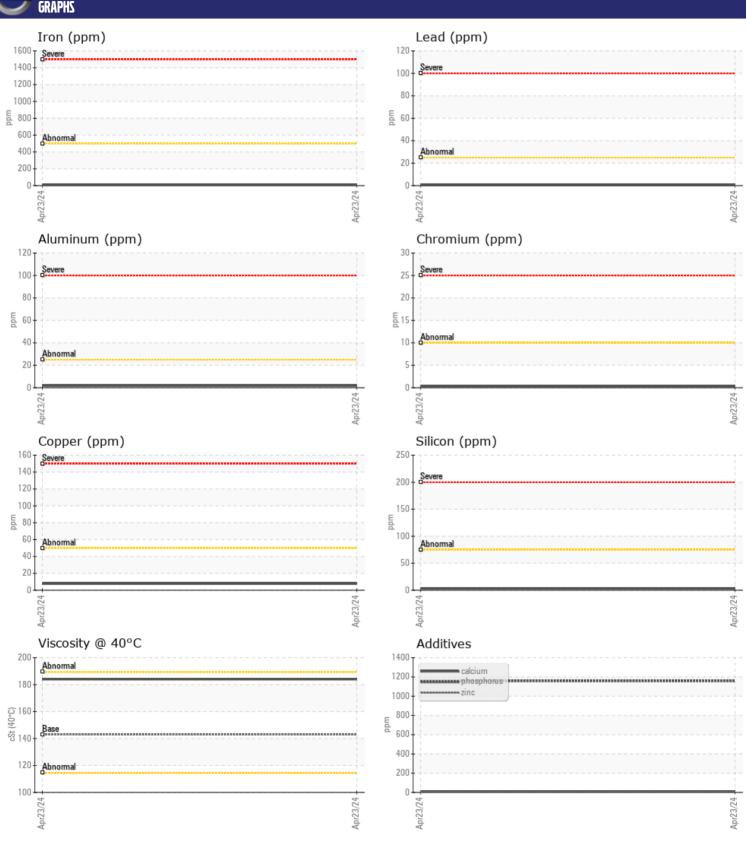
 Report Date:
 08 May 2024

Contact/Location: MARK DEROSA - VOLVO8885











CONSTRUCTION EQUIPMENT

SPM689631 ALTER ROCK SENNEBOGEN 835ME 835.0.3333 - FRONT

Sample No: VCP443800

Potassium

Oil Type: **GEAR OIL SAE 80W90** Job No: SPM689631 ALTER ROCK

ppm

**1** 



VOLVO				
WEAR	METALS			
Iron	ppm	■ 58	 	
Copper	ppm	<b>16</b>	 	
Lead	ppm	<b>■</b> <1	 	
Tin	ppm	<b>-&lt;1</b>	 	
Aluminum	ppm	<b>2</b>	 	
Chromium	ppm	<b>■&lt;1</b>	 	
Molybdenum	ppm	<b>-&lt;</b> 1	 	
Nickel	ppm	<b>-&lt;1</b>	 	
Titanium	ppm	<1	 	
Silver	ppm	0	 	
Manganese	ppm	<b>2</b>	 	
Vanadium	ppm	0	 	

ADDITI	VES			
Calcium	ppm	<b>12</b>	 	
Magnesium	ppm	<b>1</b>	 	
Zinc	ppm	<b>10</b>	 	
Phosphorus	ppm	<b>1215</b>	 	
Barium	ppm	<b>363</b>	 	
Boron	ppm	<b>■</b> 3	 	



**ALTA EQUIPMENT CO - ORLAND PARK** 5000 INDUSTRIAL HWY GARY, IN US 46406 Contact: MARK DEROSA mark.derosa@altg.com T: (248)356-5200

### 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.

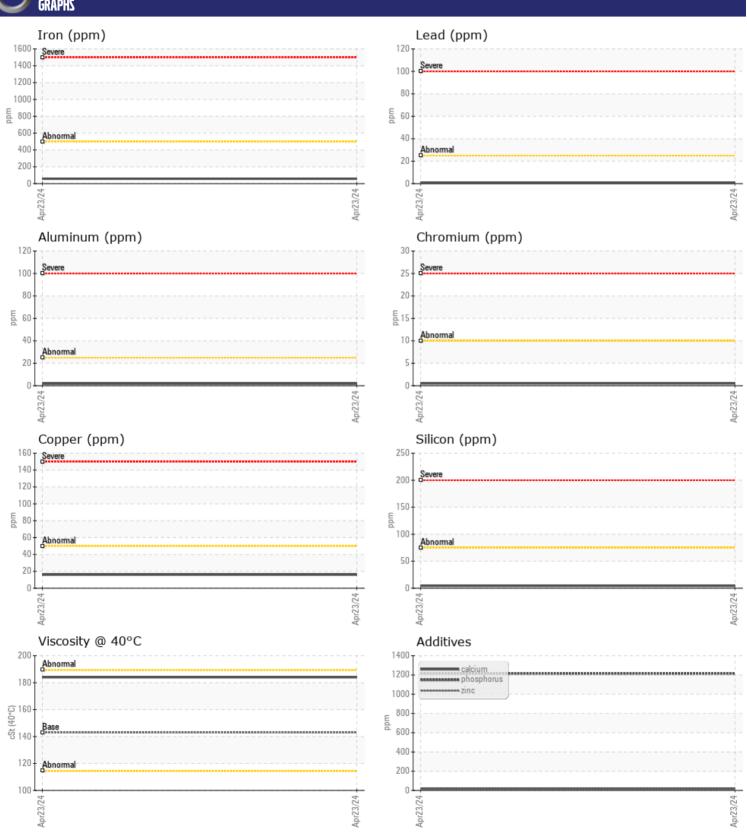
Depot: VOLVO8885 **Unique No:** 11017765 Signed: Wes Davis Report Date: 08 May 2024

Contact/Location: MARK DEROSA - VOLVO8885











CONSTRUCTION EQUIPMENT
SPM689631 ALTER ROCK SENNEBOGEN 835ME 835.0.3333 - REAR

Sample No: VCP443798

Potassium

Oil Type: **GEAR OIL SAE 80W90** Job No: SPM689631 ALTER ROCK

NFORMATION						
-	VCP443798					
	23 Apr 2024					
	344					
	0					
	Changed					
	NORMAL					
TION						
cSt	<b>183</b>					
CONTAMINATION						
%	NEG					
ppm	<b>4</b>					
ppm	<b>2</b>					
	TION cSt VATION % ppm	VCP443798 23 Apr 2024 344 0 Changed NORMAL  TION cSt	VCP443798 23 Apr 2024 344 0 Changed NORMAL  TION  cSt 183  VATION  % NEG ppm 14	VCP443798 23 Apr 2024 344 0 Changed NORMAL  TION  cSt		

WEAR N	METALS			
WLAIL	IL I VL7			
Iron	ppm	■83	 	
Copper	ppm	<b>16</b>	 	
Lead	ppm	<b>■&lt;1</b>	 	
Tin	ppm	<b>■&lt;1</b>	 	
Aluminum	ppm	<b>2</b>	 	
Chromium	ppm	<b>■&lt;1</b>	 	
Molybdenum	ppm	<b>■&lt;1</b>	 	
Nickel	ppm	<b>■&lt;1</b>	 	
Titanium	ppm	<1	 	
Silver	ppm	0	 	
Manganese	ppm	<b>2</b>	 	
Vanadium	ppm	0	 	

ADDITIVES							
Calcium	ppm	<b>13</b>					
Magnesium	ppm	<b>1</b>					
Zinc	ppm	<b>12</b>					
Phosphorus	ppm	<b>1215</b>					
Barium	ppm	<b>■</b> 361					
Boron	mag	<b>■3</b>					



**ALTA EQUIPMENT CO - ORLAND PARK** 5000 INDUSTRIAL HWY GARY, IN US 46406 Contact: MARK DEROSA mark.derosa@altg.com T: (248)356-5200 F:

### Diagnosis

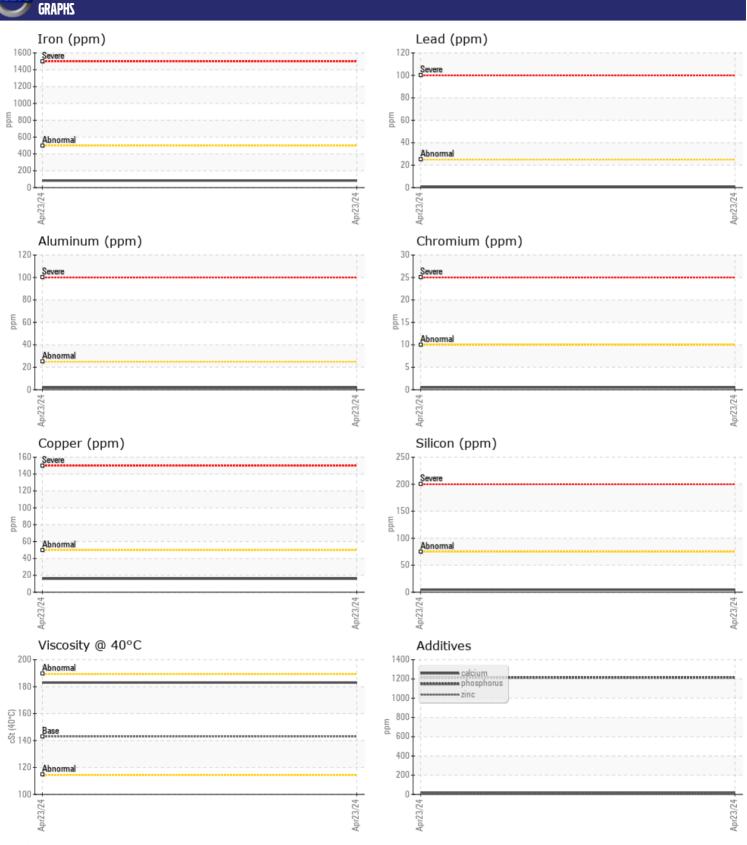
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: VOLVO8885 **Unique No:** 11017764 Signed: Wes Davis Report Date: 08 May 2024











CONSTRUCTION EQUIPMENT

SPM689631 ALTER ROCK SENNEBOGEN 835ME 835.0.3333 - REAR

**Sample No:** VCP421622

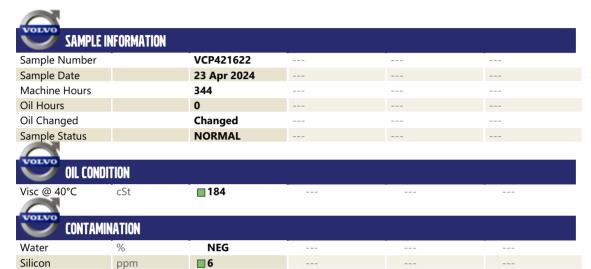
Sodium

Potassium

Oil Type: **GEAR OIL SAE 80W90** Job No: SPM689631 ALTER ROCK

ppm

ppm



**6** 

**1** 

WEAR METALS						
Iron	ppm	<b>■74</b>				
Copper	ppm	<b>■26</b>				
Lead	ppm	<b>■&lt;1</b>				
Tin	ppm	<b>■&lt;1</b>				
Aluminum	ppm	<b>2</b>				
Chromium	ppm	<b>■&lt;1</b>				
Molybdenum	ppm	<b>■&lt;1</b>				
Nickel	ppm	<b>■</b> <1				
Titanium	ppm	<1				
Silver	ppm	0				
Manganese	ppm	<b>2</b>				
Vanadium	ppm	0				

ADDITIVES							
Calcium	ppm	<b>16</b>					
Magnesium	ppm	<b>2</b>					
Zinc	ppm	<b>18</b>					
Phosphorus	ppm	<b>1852</b>					
Barium	ppm	<b>552</b>					
Boron	mag	<b>1</b> 5					



**ALTA EQUIPMENT CO - ORLAND PARK** 5000 INDUSTRIAL HWY GARY, IN US 46406 Contact: MARK DEROSA mark.derosa@altg.com

T: (248)356-5200 F:

### Diagnosis

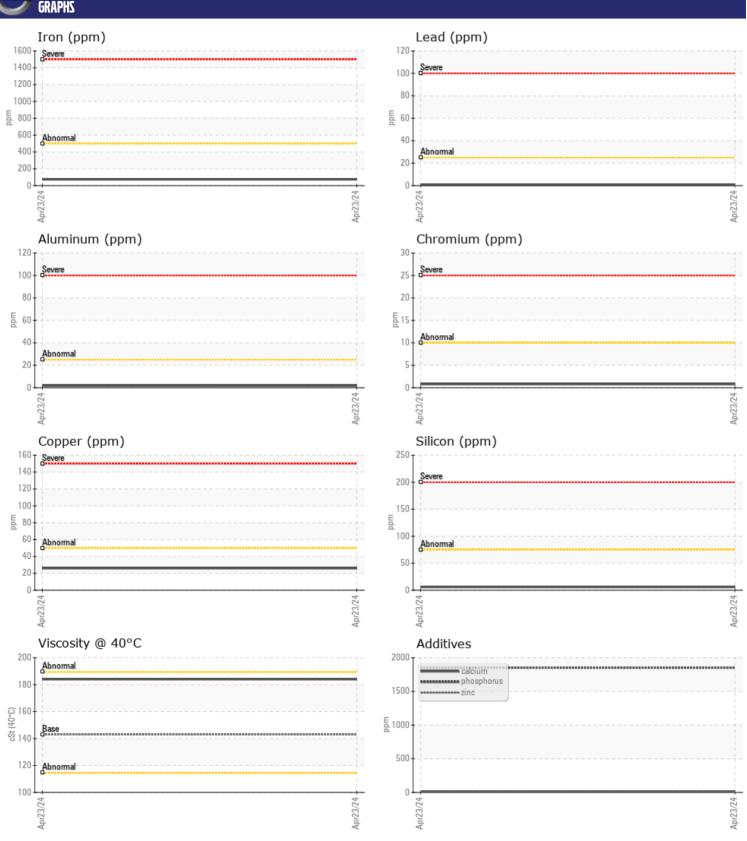
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: VOLVO8885 **Unique No:** 11017767 Signed: Don Baldridge Report Date: 09 May 2024











CONSTRUCTION EQUIPMENT

SPM689631 ALTER ROCK SENNEBOGEN 835ME 835.0.3333 - REAR

Sample No: VCP443803

Oil Type: **GEAR OIL SAE 80W90** Job No: SPM689631 ALTER ROCK

ZAMPI F	INFORMATION	N		
			 <u> </u>	
Sample Number		VCP443803	 	
Sample Date		23 Apr 2024	 	
Machine Hours		344	 	
Oil Hours		0	 	
Oil Changed		Changed	 	
Sample Status		ABNORMAL	 	
VOLVO				
OIL CON	DITION			
Visc @ 40°C	cSt	<b>186</b>	 	
VISC @ 40 C	CSt			
VOLVO				
CONTAN	IINATION			
Water	%	NEG	 	
Silicon	ppm	<b>4</b>	 	
Sodium	ppm	<b>■</b> 9	 	
Potassium	ppm	<b>2</b>	 	
VOLVO	IETAL C			
WEAR M	IF I ALS			
Iron	ppm	■183	 	
Copper	ppm	<b>162</b>	 	
Lead	ppm	<b>1</b>	 	
Tin	ppm	<b>■</b> <1	 	
Aluminum	ppm	<b>6</b>	 	
Chromium	ppm	<b>■2</b>	 	
Molybdenum	ppm	<b>■</b> <1	 	
Nickel	ppm	<b>-&lt;1</b>	 	
Titanium	ppm	<1	 	
Silver	ppm	0	 	
Manganese	ppm	<b>12</b>	 	
Vanadium	ppm	0	 	
ADDITIV	771			
	-			
Calcium	ppm	<b>23</b>	 	
Magnesium	ppm	<b>2</b>	 	
Zinc	ppm	<b>115</b>	 	
Phosphorus	ppm	<b>1209</b>	 	
Barium	ppm	■293	 	
Boron	ppm	■3	 	



**ALTA EQUIPMENT CO - ORLAND PARK** 5000 INDUSTRIAL HWY GARY, IN US 46406 Contact: MARK DEROSA mark.derosa@altg.com T: (248)356-5200 F:

### Diagnosis

The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of metal. Resample at the next service interval to monitor. High concentration of visible yellow metal present. Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: VOLVO8885 **Unique No:** 11017749 Signed: Don Baldridge Report Date: 09 May 2024







