



# CONSTRUCTION EQUIPMENT

SPM701405 SENNEBOGEN 835ME 835.0.2718 - DIESEL ENGINE



**Sample No:** VCP438001  
**Oil Type:** DIESEL ENGINE OIL SAE 15W40  
**Job No:** SPM701405



## SAMPLE INFORMATION

Sample Number	<b>VCP438001</b>	VCP433821	VCP415015	VCP423379
Sample Date	<b>12 Apr 2024</b>	07 Dec 2023	12 Sep 2023	25 May 2023
Machine Hours	<b>9760</b>	8880	8383	7855
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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## OIL CONDITION

Visc @ 100°C	cSt	<b>13.1</b>	13.3	13.7	13.5
Base Number (BN)	mg KOH/g	<b>9.2</b>	8.6	8.4	8.7
Oxidation (PA)	%	<b>64</b>	68	65	71

## 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 suitable for further service.

## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.1</b>	0.2	0.2	0.2
Nitration (PA)	%	<b>63</b>	69	68	73
Sulfation (PA)	%	<b>53</b>	55	54	56
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>2</b>	2	3	2
Sodium	ppm	<b>&lt;1</b>	0	2	0
Potassium	ppm	<b>0</b>	2	6	3

## WEAR METALS

Iron	ppm	<b>3</b>	4	6	6
Copper	ppm	<b>0</b>	<1	0	<1
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>0</b>	<1	<1	0
Aluminum	ppm	<b>&lt;1</b>	1	2	0
Chromium	ppm	<b>0</b>	0	<1	0
Molybdenum	ppm	<b>65</b>	58	61	59
Nickel	ppm	<b>0</b>	0	<1	0
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	<1	<1	0
Vanadium	ppm	<b>0</b>	0	0	0

## ADDITIVES

Calcium	ppm	<b>1248</b>	1000	1080	1096
Magnesium	ppm	<b>1100</b>	975	994	835
Zinc	ppm	<b>1394</b>	1287	1297	1158
Phosphorus	ppm	<b>1126</b>	986	1051	965
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>0</b>	0	2	<1

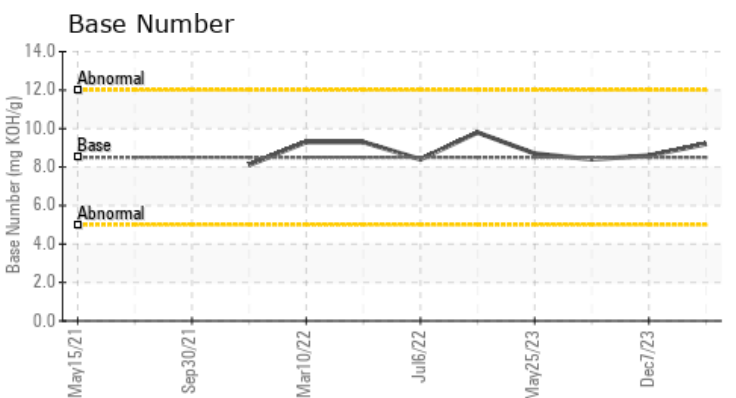
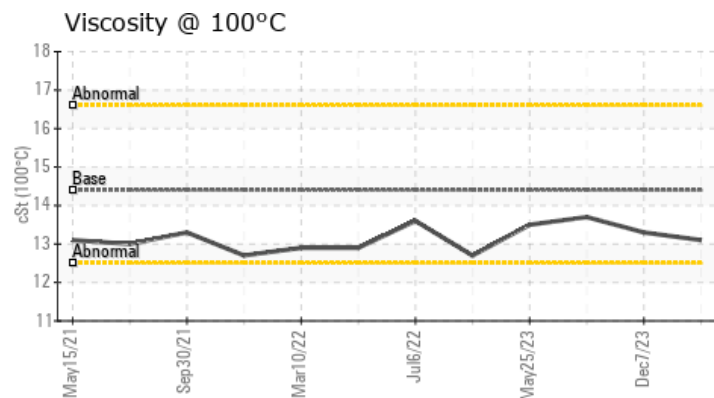
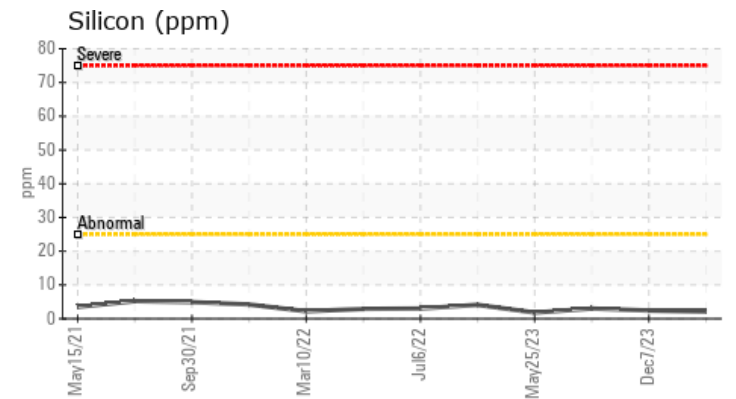
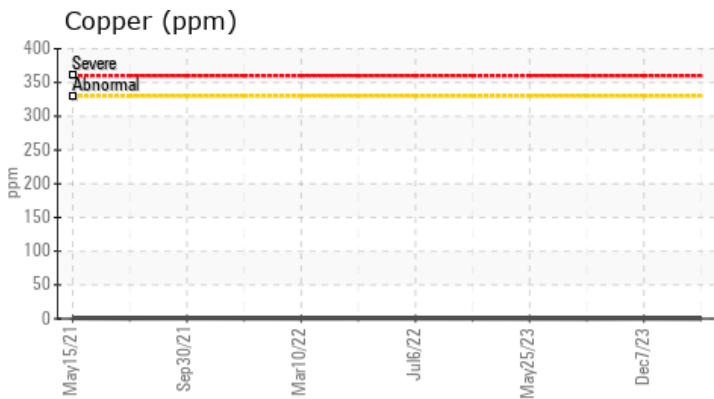
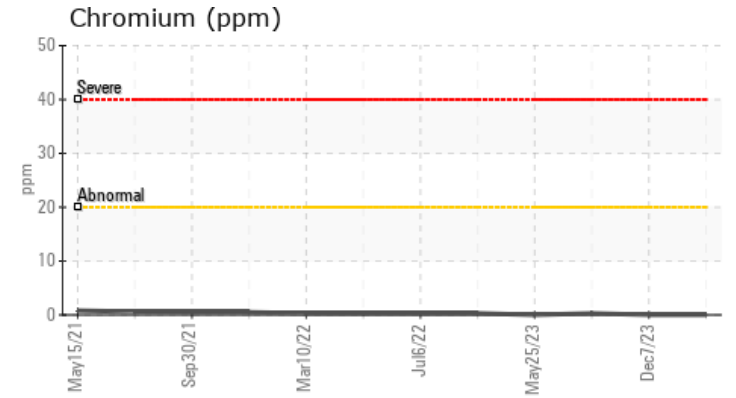
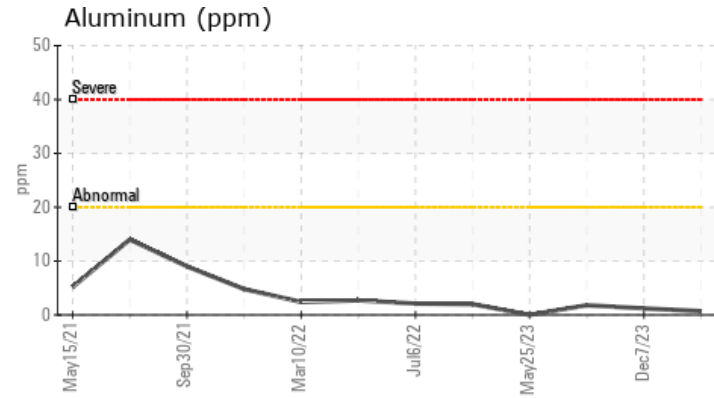
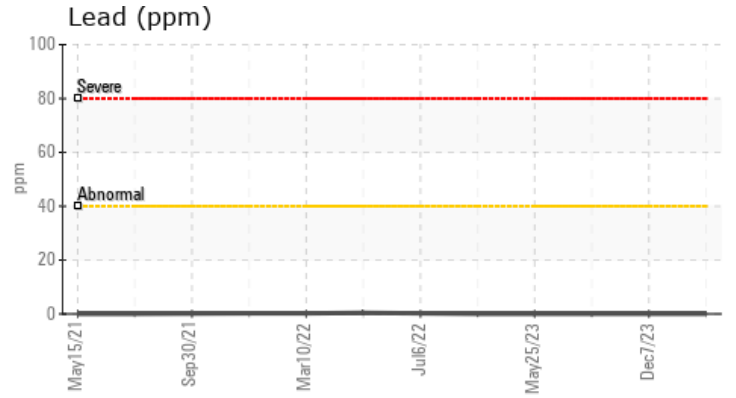
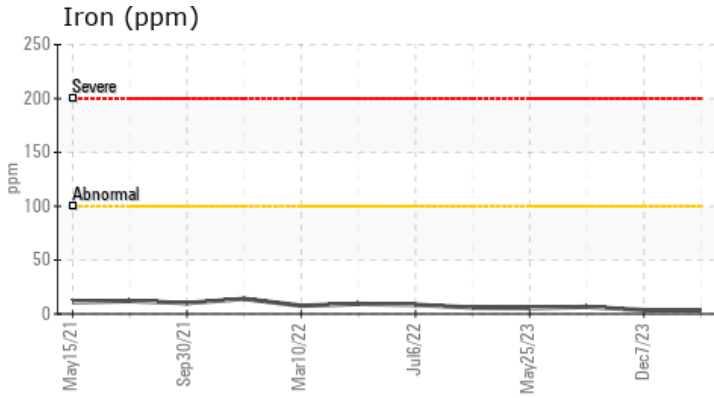
**Depot:** BELBOU  
**Unique No:** 10995443  
**Signed:** Wes Davis  
**Report Date:** 30 Apr 2024



# CONSTRUCTION EQUIPMENT



## VOLVO GRAPHS



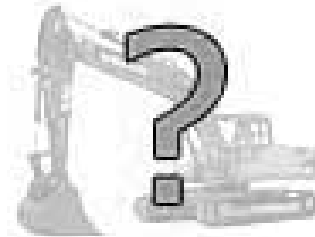


# CONSTRUCTION EQUIPMENT

## SPM701405 SENNEBOGEN 835ME 835.0.2718 - HYDRAULIC SYSTEM



**Sample No:** VCP437969  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** SPM701405



### SAMPLE INFORMATION

Sample Number	<b>VCP437969</b>	VCP415009	VCP423382	VCP399984
Sample Date	<b>12 Apr 2024</b>	12 Sep 2023	25 May 2023	28 Feb 2023
Machine Hours	<b>9760</b>	8383	7855	7325
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Not Chngd	Changed	Not Chngd
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 40°C	cSt	<b>40.7</b>	40.6	40.9	40.4
Acid Number (AN)	mg KOH/g	<b>0.58</b>	0.46	0.76	0.89

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Particles >4µm		<b>1604</b>	2559	1486	2329
Particles >6µm		<b>478</b>	541	259	486
Particles >14µm		<b>34</b>	33	21	15
ISO 4406:1999 (c)		<b>18/16/12</b>	19/16/12	18/15/12	18/16/11
Silicon	ppm	<b>1</b>	1	2	2
Sodium	ppm	<b>4</b>	2	6	4
Potassium	ppm	<b>&lt;1</b>	<1	0	1

### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

### WEAR METALS

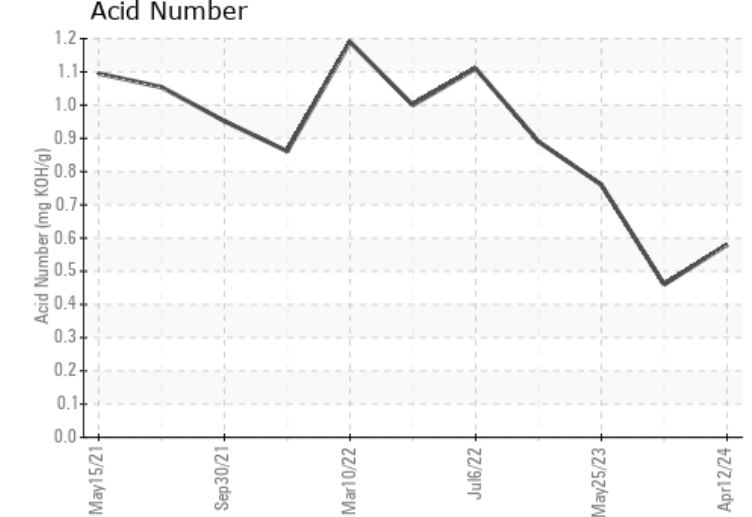
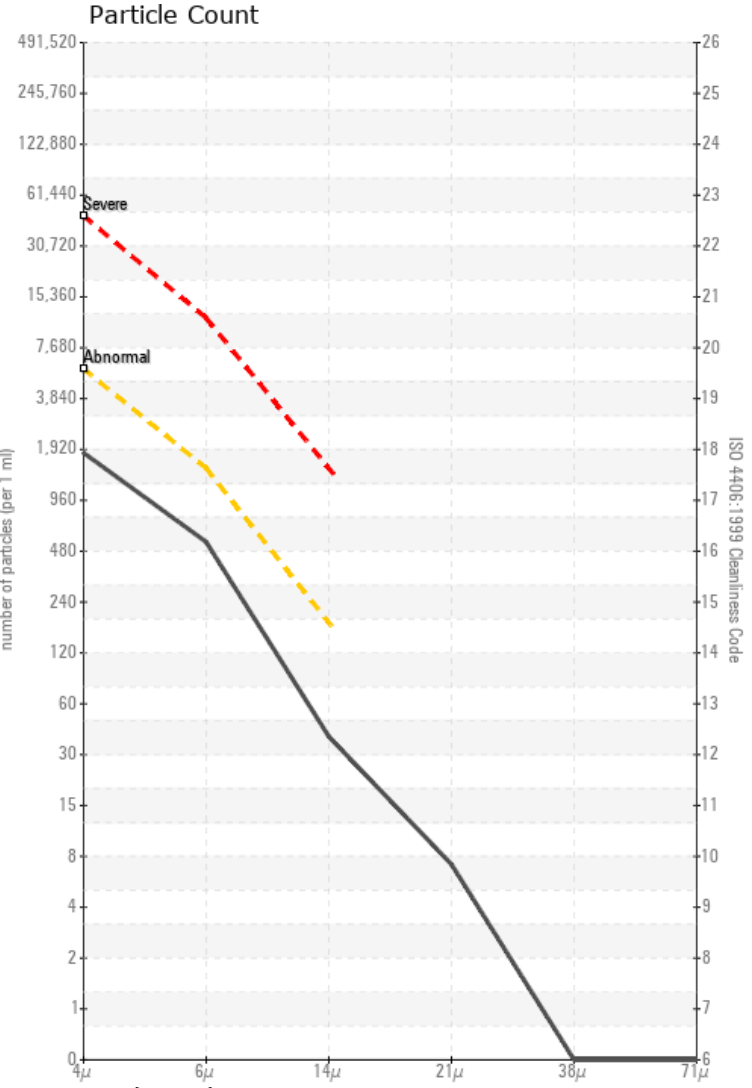
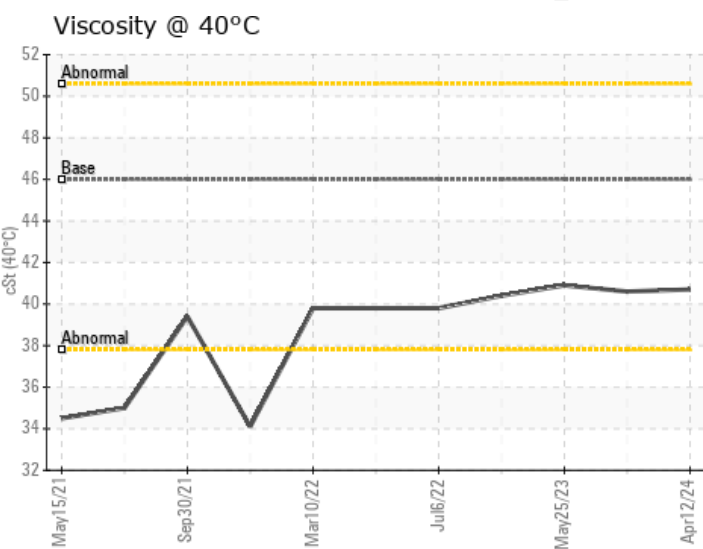
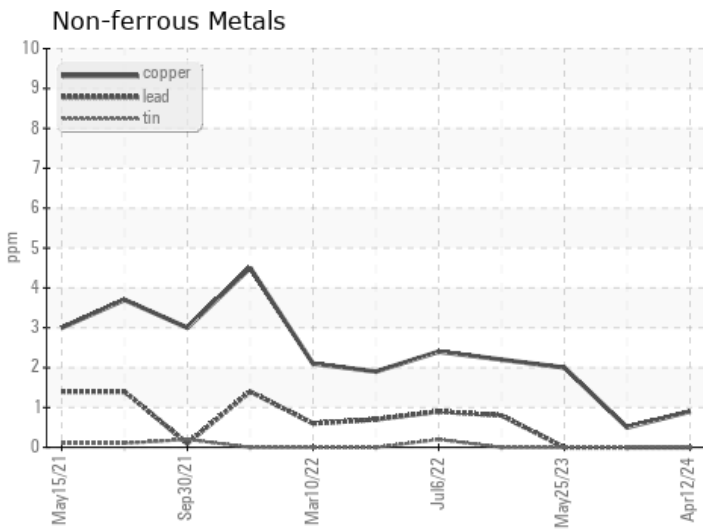
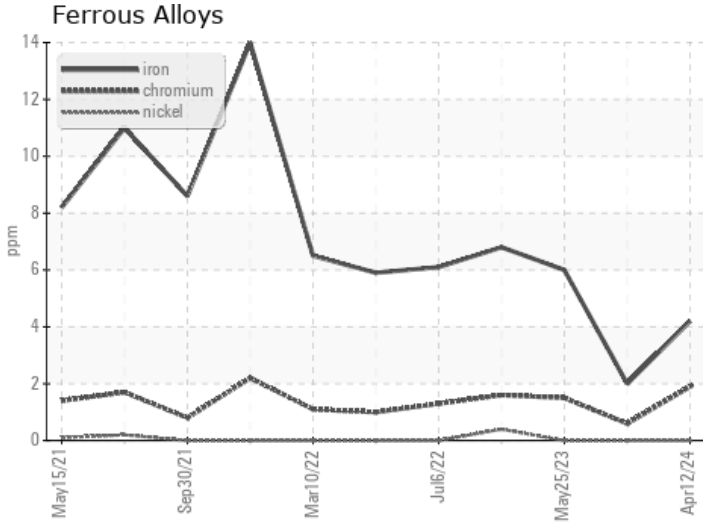
Iron	ppm	<b>4</b>	2	6	7
Copper	ppm	<b>&lt;1</b>	<1	2	2
Lead	ppm	<b>0</b>	0	0	<1
Tin	ppm	<b>0</b>	0	0	0
Aluminum	ppm	<b>0</b>	<1	<1	<1
Chromium	ppm	<b>2</b>	<1	2	2
Molybdenum	ppm	<b>&lt;1</b>	<1	<1	1
Nickel	ppm	<b>0</b>	0	0	<1
Titanium	ppm	<b>0</b>	0	<1	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	0	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>309</b>	368	888	1064
Magnesium	ppm	<b>18</b>	26	54	62
Zinc	ppm	<b>519</b>	572	785	854
Phosphorus	ppm	<b>419</b>	471	610	671
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>3</b>	4	14	16

**Depot:** BELBOU  
**Unique No:** 10995717  
**Signed:** Wes Davis  
**Report Date:** 30 Apr 2024

**VOLVO** **GRAPHS**





# CONSTRUCTION EQUIPMENT

SPM701405 SENNEBOGEN 835ME 835.0.2718 - LEFT SWING DRIVE



**Sample No:** VCP437968  
**Oil Type:** MOBIL SHC 630  
**Job No:** SPM701405



## SAMPLE INFORMATION

Sample Number	<b>VCP437968</b>	VCP415012	VCP423381	VCP399961
Sample Date	<b>12 Apr 2024</b>	12 Sep 2023	25 May 2023	28 Feb 2023
Machine Hours	<b>9760</b>	8383	7855	7325
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Not Chngd	Changed	Not Chngd
Sample Status	<b>ABNORMAL</b>	NORMAL	ABNORMAL	ABNORMAL

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## OIL CONDITION

Visc @ 40°C	cSt	<b>222</b>	221	212	214
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## CONTAMINATION

Water	%	<b>0.526</b>	NEG	0.090	<b>0.584</b>
Silicon	ppm	<b>15</b>	24	11	26
Sodium	ppm	<b>0</b>	0	0	<1
Potassium	ppm	<b>0</b>	<1	1	<1

## Diagnosis

We advise that you check for the source of water entry. Resample at the next service interval to monitor. All component wear rates are normal. Appearance is hazy. There is a moderate concentration of water present in the oil. The condition of the oil is acceptable for the time in service.



## WEAR METALS

Iron	ppm	<b>130</b>	86	102	146
Copper	ppm	<b>161</b>	99	82	94
Lead	ppm	<b>0</b>	<1	0	0
Tin	ppm	<b>5</b>	5	3	6
Aluminum	ppm	<b>0</b>	1	0	1
Chromium	ppm	<b>&lt;1</b>	<1	<1	1
Molybdenum	ppm	<b>0</b>	0	0	<1
Nickel	ppm	<b>0</b>	0	0	<1
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>1</b>	<1	<1	1
Vanadium	ppm	<b>0</b>	0	0	0



## ADDITIVES

Calcium	ppm	<b>112</b>	182	67	456
Magnesium	ppm	<b>2</b>	2	4	11
Zinc	ppm	<b>131</b>	129	59	206
Phosphorus	ppm	<b>406</b>	468	393	531
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>&lt;1</b>	3	0	5

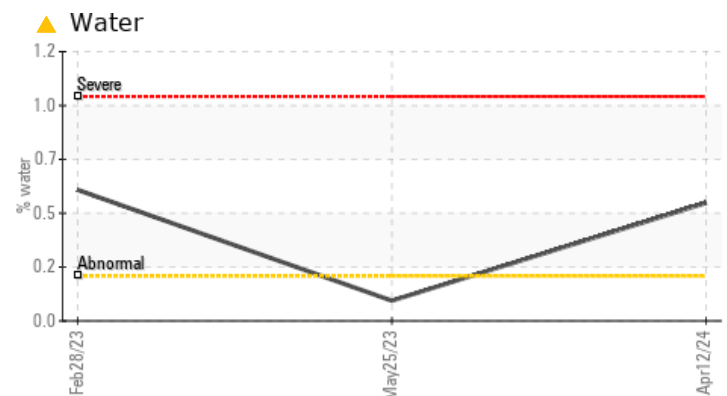
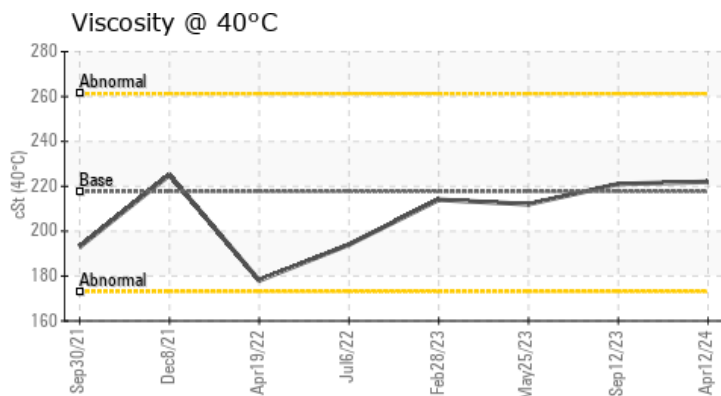
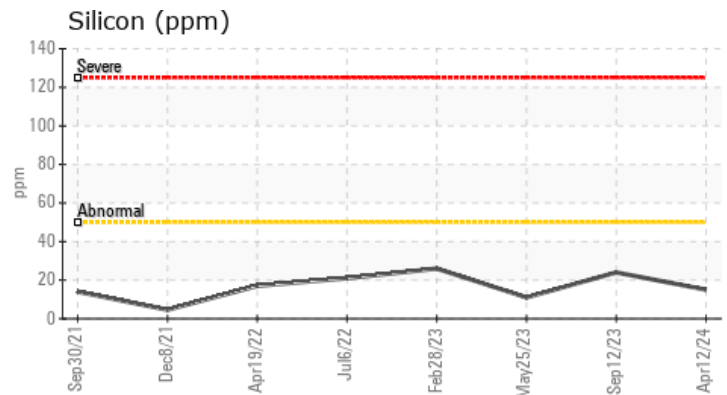
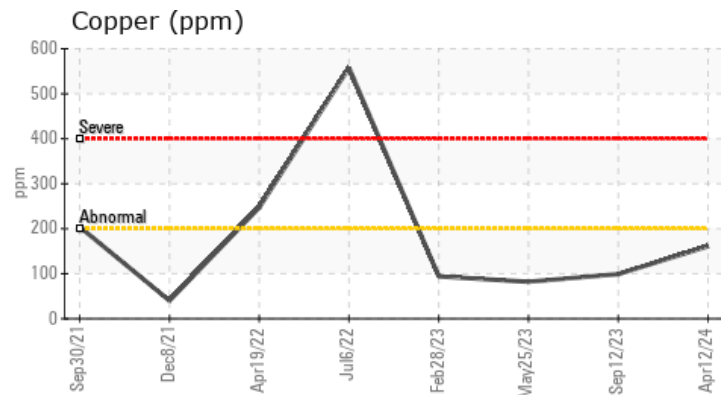
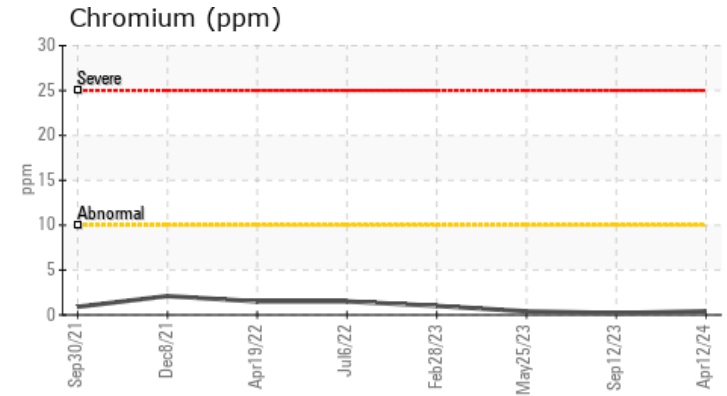
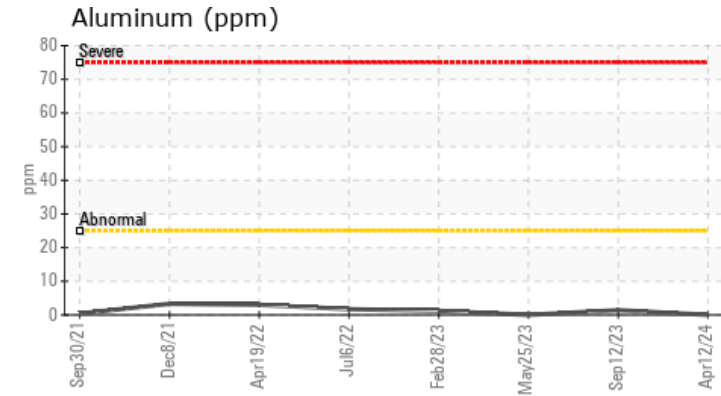
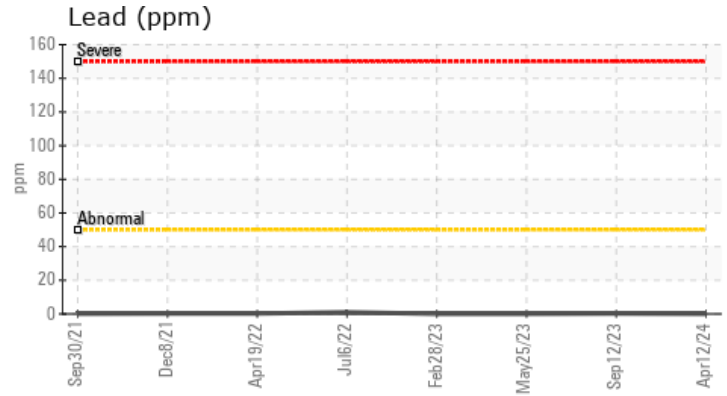
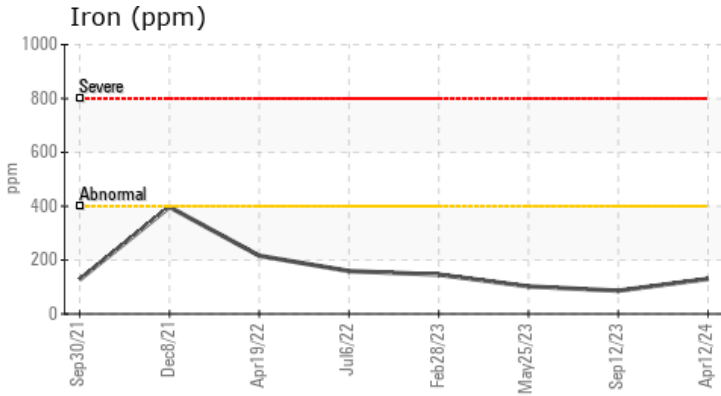
**Depot:** BELBOU  
**Unique No:** 10996152  
**Signed:** Jonathan Hester  
**Report Date:** 30 Apr 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS





# CONSTRUCTION EQUIPMENT

SPM701405 SENNEBOGEN 835ME 835.0.2718 - RIGHT SWING DRIVE



**Sample No:** VCP437974  
**Oil Type:** MOBIL SHC 630  
**Job No:** SPM701405



## SAMPLE INFORMATION

Sample Number	<b>VCP437974</b>	VCP415014	VCP423385	VCP399956
Sample Date	<b>12 Apr 2024</b>	12 Sep 2023	25 May 2023	28 Feb 2023
Machine Hours	<b>9760</b>	8383	7855	7325
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Not Chngd	Changed	Not Chngd
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

### BELSON STEEL

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## OIL CONDITION

Visc @ 40°C	cSt	<b>221</b>	217	211	205
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## CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	<b>25</b>	16	17	22
Sodium	ppm	<b>0</b>	0	0	1
Potassium	ppm	<b>0</b>	1	1	<1



## WEAR METALS

Iron	ppm	<b>210</b>	78	40	54
Copper	ppm	<b>124</b>	112	30	29
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>7</b>	3	2	2
Aluminum	ppm	<b>0</b>	1	0	<1
Chromium	ppm	<b>&lt;1</b>	<1	0	0
Molybdenum	ppm	<b>0</b>	<1	0	<1
Nickel	ppm	<b>0</b>	0	0	<1
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0



## ADDITIVES

Calcium	ppm	<b>207</b>	110	139	409
Magnesium	ppm	<b>2</b>	2	5	7
Zinc	ppm	<b>114</b>	155	67	160
Phosphorus	ppm	<b>505</b>	407	449	513
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>5</b>	0	0	4

## 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.

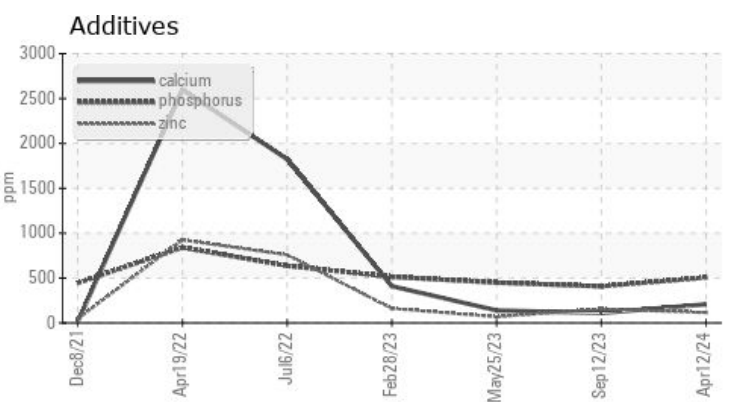
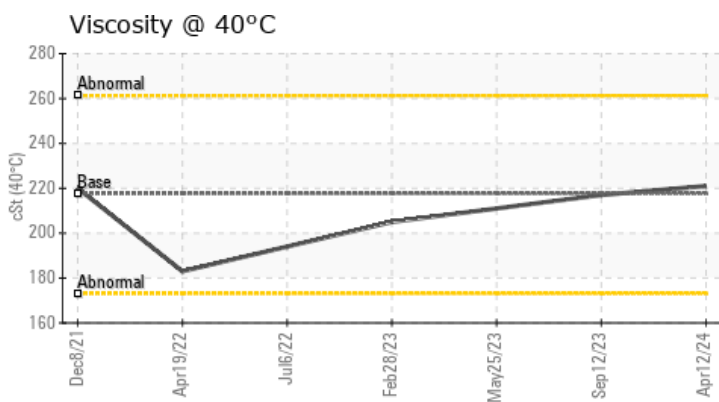
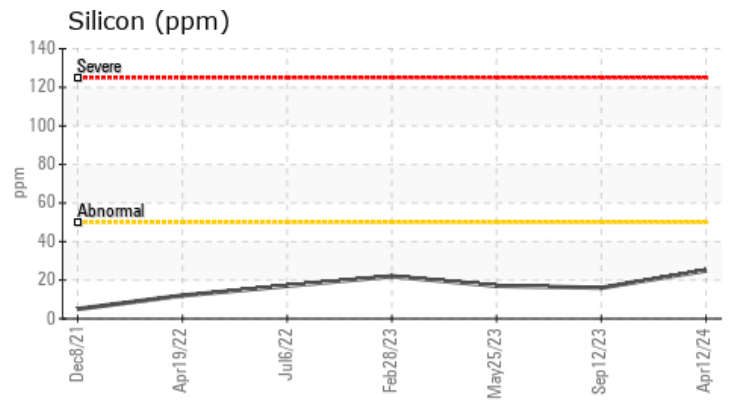
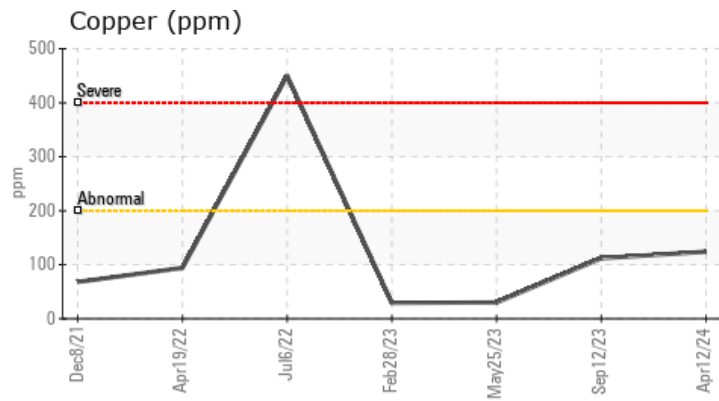
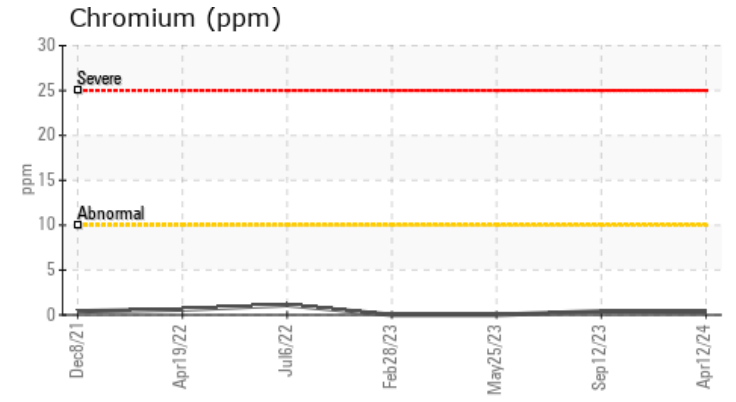
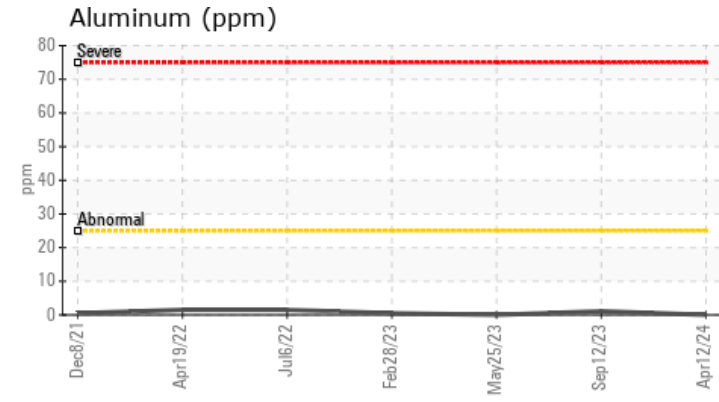
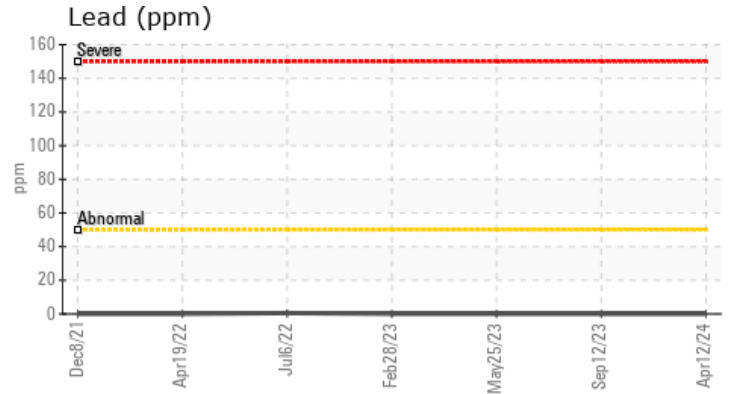
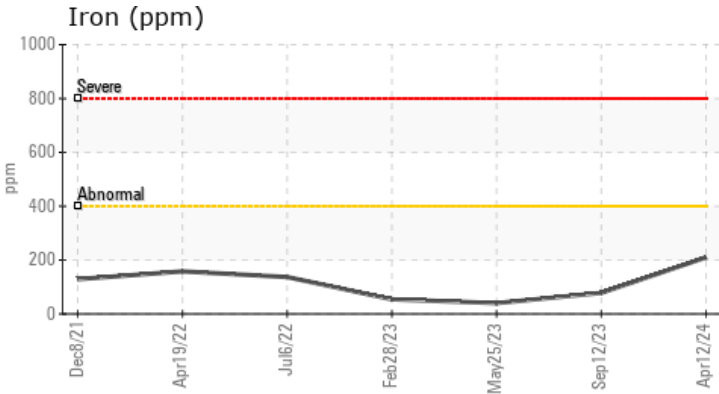
**Depot:** BELBOU  
**Unique No:** 10996156  
**Signed:** Jonathan Hester  
**Report Date:** 30 Apr 2024



# CONSTRUCTION EQUIPMENT



## VOLVO GRAPHS







# CONSTRUCTION EQUIPMENT

## SPM701405 SENNEBOGEN 835ME 835.0.2718 - FRONT LEFT FINAL DRIVE



**Sample No:** VCP426446  
**Oil Type:** GEAR OIL SAE 80W90  
**Job No:** SPM701405



### SAMPLE INFORMATION

Sample Number	<b>VCP426446</b>	VCP433818	VCP415010	VCP423380
Sample Date	<b>12 Apr 2024</b>	07 Dec 2023	12 Sep 2023	25 May 2023
Machine Hours	<b>9760</b>	8880	8383	7855
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Changed	Not Chngd	Changed
Sample Status	<b>NORMAL</b>	ABNORMAL	NORMAL	ABNORMAL

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### OIL CONDITION

Visc @ 40°C	cSt	<b>138</b>	138	160	136
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### CONTAMINATION

Water	%	<b>NEG</b>	0.074	NEG	NEG
Silicon	ppm	<b>2</b>	2	11	3
Sodium	ppm	<b>0</b>	1	10	<1
Potassium	ppm	<b>0</b>	1	4	1

### 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.



### WEAR METALS

Iron	ppm	<b>51</b>	88	184	41
Copper	ppm	<b>18</b>	381	<1	174
Lead	ppm	<b>0</b>	4	0	2
Tin	ppm	<b>&lt;1</b>	<1	0	0
Aluminum	ppm	<b>0</b>	13	3	6
Chromium	ppm	<b>0</b>	<1	6	0
Molybdenum	ppm	<b>0</b>	0	<1	<1
Nickel	ppm	<b>0</b>	0	<1	0
Titanium	ppm	<b>0</b>	0	<1	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>1</b>	12	6	6
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>64</b>	57	47	652
Magnesium	ppm	<b>4</b>	2	2	9
Zinc	ppm	<b>37</b>	194	17	411
Phosphorus	ppm	<b>623</b>	618	290	1653
Barium	ppm	<b>1</b>	0	0	0
Boron	ppm	<b>16</b>	20	0	130

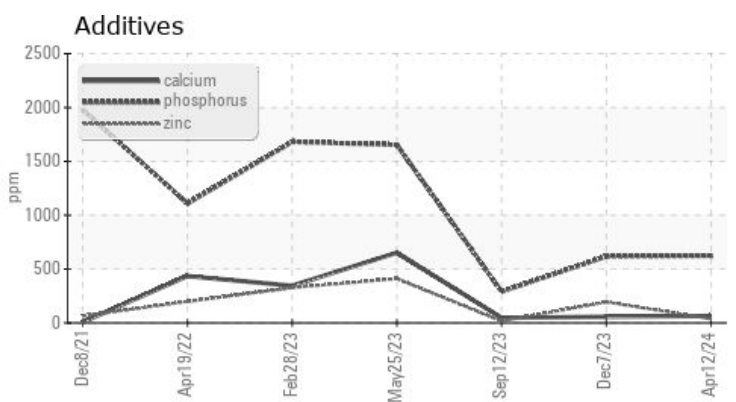
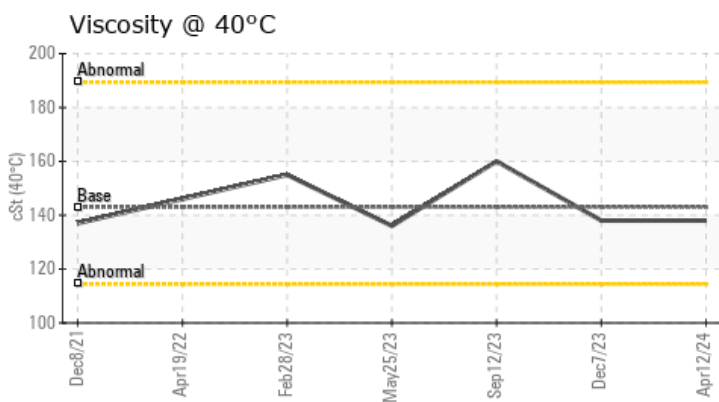
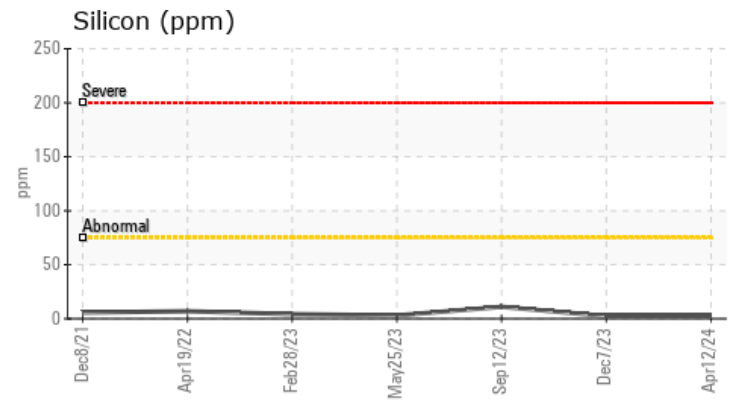
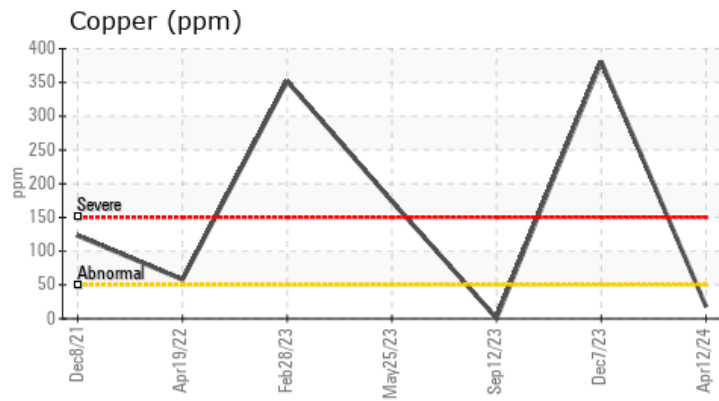
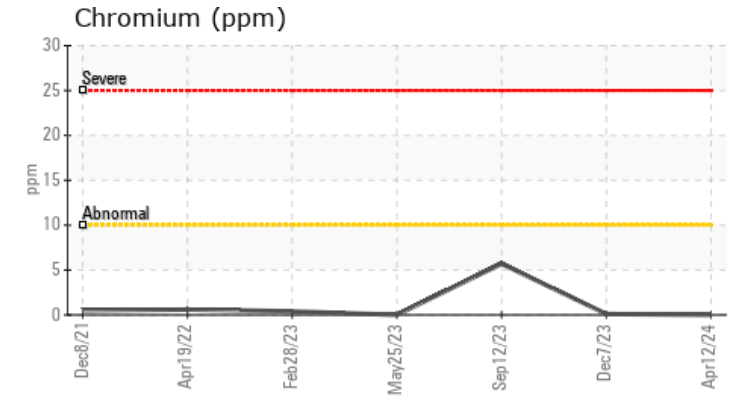
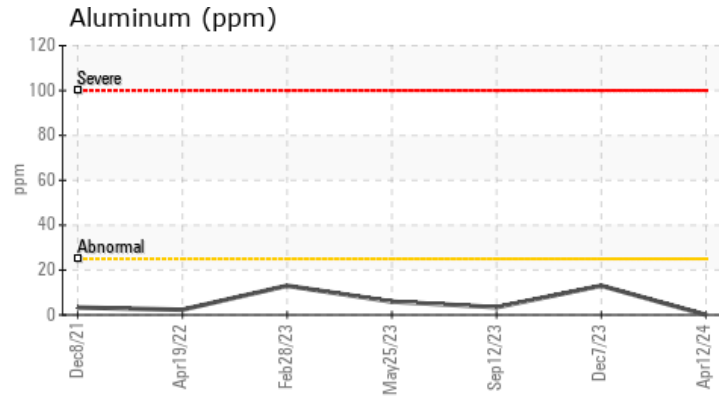
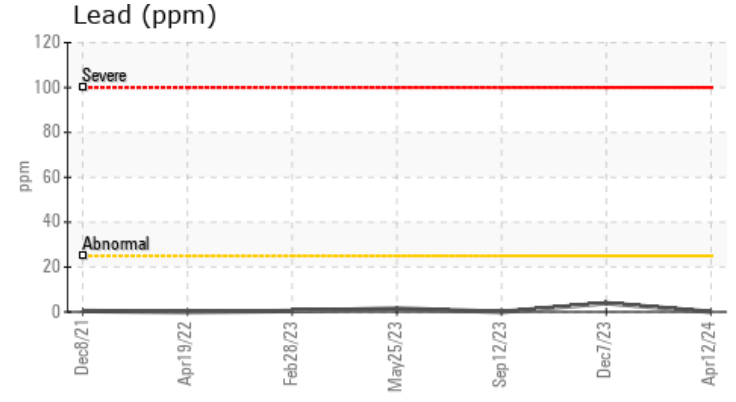
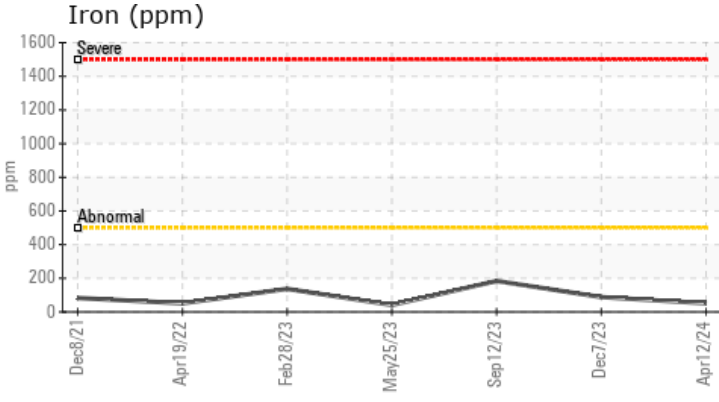
**Depot:** BELBOU  
**Unique No:** 10996150  
**Signed:** Wes Davis  
**Report Date:** 30 Apr 2024



# CONSTRUCTION EQUIPMENT



## VOLVO GRAPHS



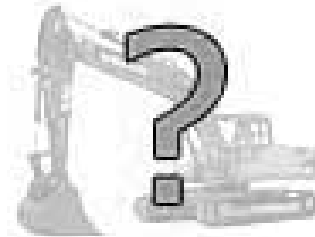


# CONSTRUCTION EQUIPMENT

SPM701405 SENNEBOGEN 835ME 835.0.2718 - FRONT AXLE



**Sample No:** VCP425152  
**Oil Type:** GEAR OIL SAE 80W90  
**Job No:** SPM701405



## SAMPLE INFORMATION

Sample Number	<b>VCP425152</b>	VCP433444	VCP415013	VCP423377
Sample Date	<b>12 Apr 2024</b>	07 Dec 2023	12 Sep 2023	25 May 2023
Machine Hours	<b>9760</b>	8880	8383	7855
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Changed	Not Chngd	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**BELSON STEEL**  
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F:



## OIL CONDITION

Visc @ 40°C	cSt	<b>152</b>	136	159	145
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## CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	<b>6</b>	2	12	2
Sodium	ppm	<b>&lt;1</b>	<1	10	0
Potassium	ppm	<b>0</b>	<1	4	<1

## 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.



## WEAR METALS

Iron	ppm	<b>32</b>	6	187	1
Copper	ppm	<b>&lt;1</b>	7	<1	<1
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>&lt;1</b>	<1	0	0
Aluminum	ppm	<b>0</b>	<1	3	0
Chromium	ppm	<b>0</b>	0	6	0
Molybdenum	ppm	<b>0</b>	0	<1	0
Nickel	ppm	<b>0</b>	0	<1	0
Titanium	ppm	<b>&lt;1</b>	0	<1	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	6	<1
Vanadium	ppm	<b>0</b>	0	0	0



## ADDITIVES

Calcium	ppm	<b>137</b>	13	43	137
Magnesium	ppm	<b>6</b>	<1	2	3
Zinc	ppm	<b>71</b>	9	15	64
Phosphorus	ppm	<b>615</b>	514	297	1838
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>22</b>	7	0	162

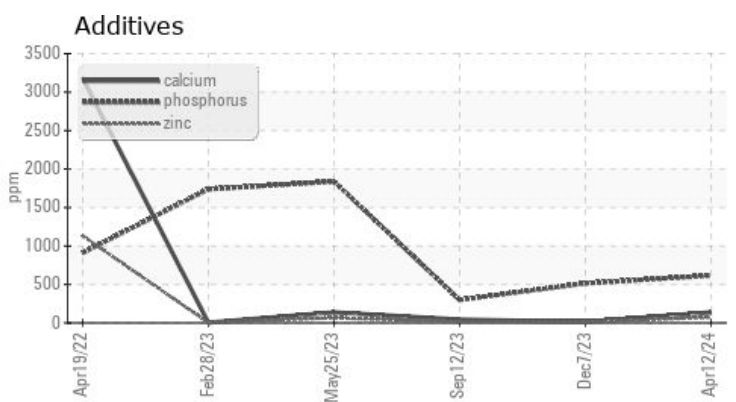
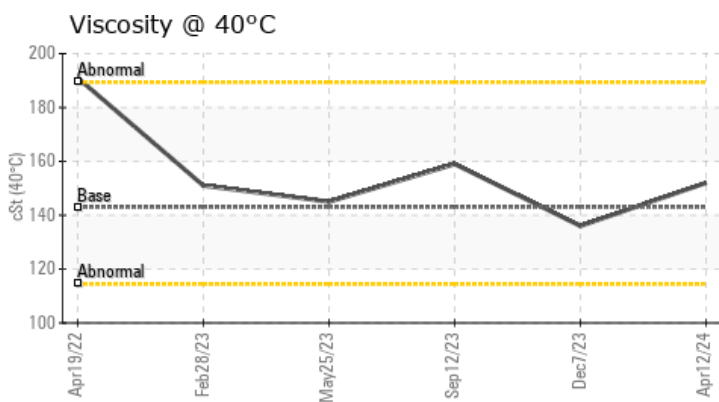
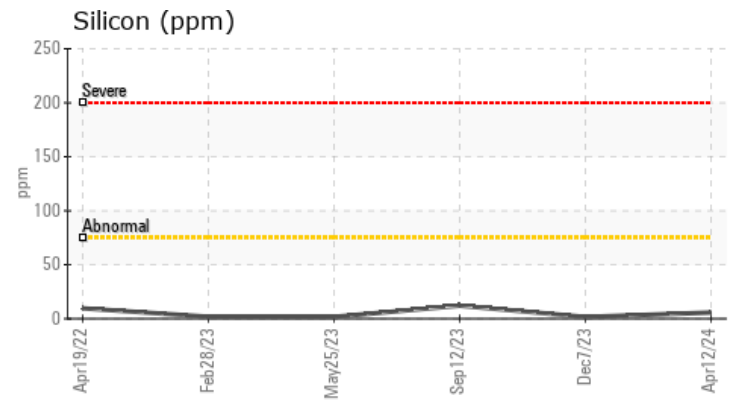
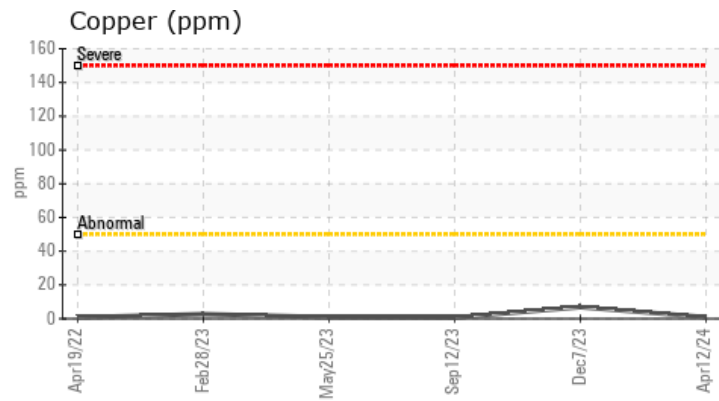
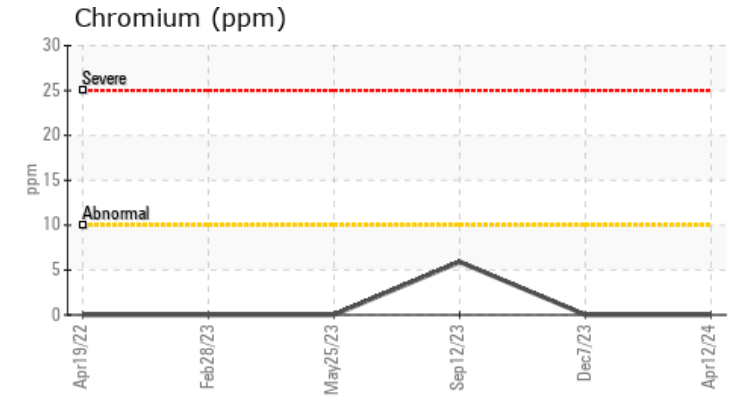
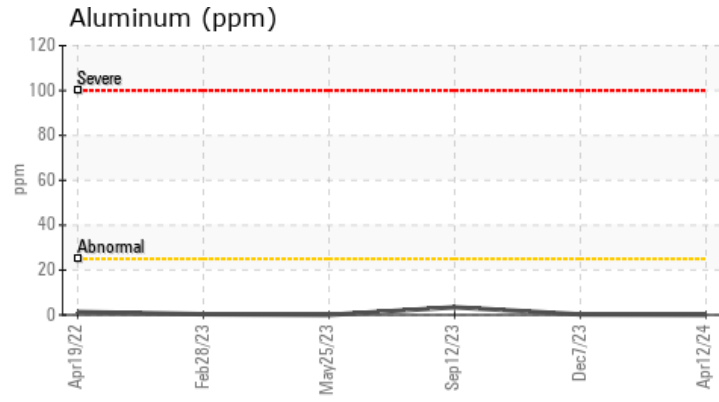
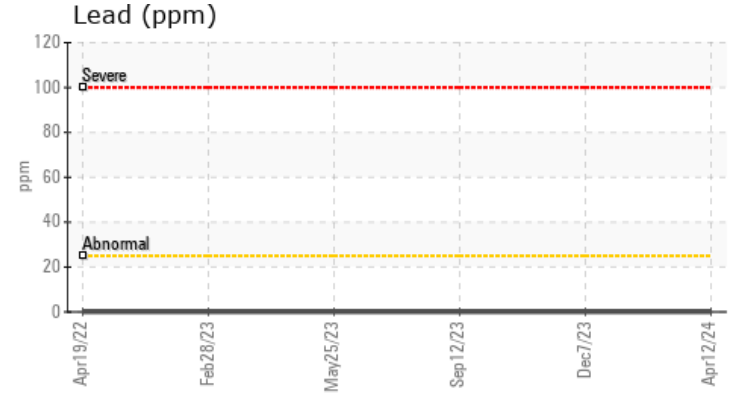
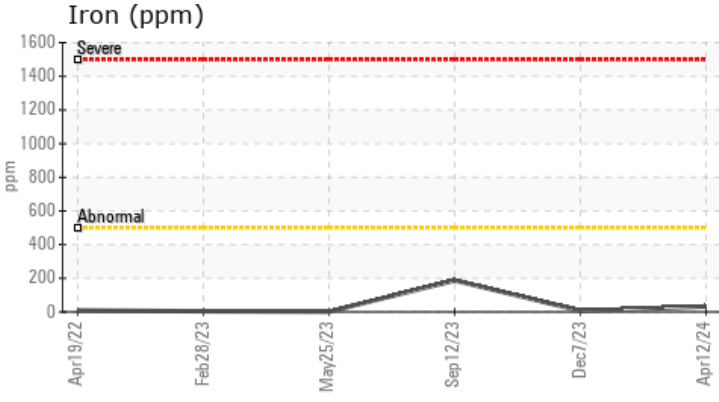
**Depot:** BELBOU  
**Unique No:** 10996155  
**Signed:** Wes Davis  
**Report Date:** 30 Apr 2024



# CONSTRUCTION EQUIPMENT



## VOLVO GRAPHS





# CONSTRUCTION EQUIPMENT

SPM701405 SENNEBOGEN 835ME 835.0.2718 - FRONT RIGHT FINAL DRIVE



**Sample No:** VCP426452  
**Oil Type:** GEAR OIL SAE 80W90  
**Job No:** SPM701405



## SAMPLE INFORMATION

Sample Number	<b>VCP426452</b>	VCP433386	VCP415011	VCP423388
Sample Date	<b>12 Apr 2024</b>	07 Dec 2023	12 Sep 2023	25 May 2023
Machine Hours	<b>9760</b>	8880	8383	7855
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Changed	Not Chngd	Changed
Sample Status	<b>MARGINAL</b>	ABNORMAL	NORMAL	ABNORMAL

**BELSON STEEL**  
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F:

## OIL CONDITION

Visc @ 40°C	cSt	<b>137</b>	139	160	134
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## CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	<b>3</b>	3	11	6
Sodium	ppm	<b>0</b>	1	11	<1
Potassium	ppm	<b>0</b>	1	4	<1

## Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level has decreased, but is still abnormal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

## WEAR METALS

Iron	ppm	<b>31</b>	53	183	34
Copper	ppm	<b>▲ 105</b>	▲ 232	<1	▲ 125
Lead	ppm	<b>0</b>	2	0	<1
Tin	ppm	<b>&lt;1</b>	<1	0	0
Aluminum	ppm	<b>2</b>	7	3	4
Chromium	ppm	<b>0</b>	0	6	0
Molybdenum	ppm	<b>0</b>	0	<1	<1
Nickel	ppm	<b>0</b>	0	<1	0
Titanium	ppm	<b>0</b>	<1	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>2</b>	6	6	4
Vanadium	ppm	<b>0</b>	0	0	0

## ADDITIVES

Calcium	ppm	<b>31</b>	64	31	976
Magnesium	ppm	<b>3</b>	2	2	13
Zinc	ppm	<b>42</b>	95	8	508
Phosphorus	ppm	<b>478</b>	546	287	1557
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>6</b>	16	0	113

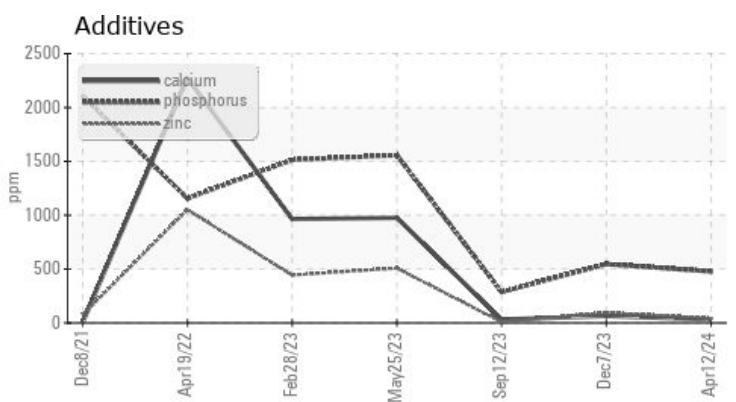
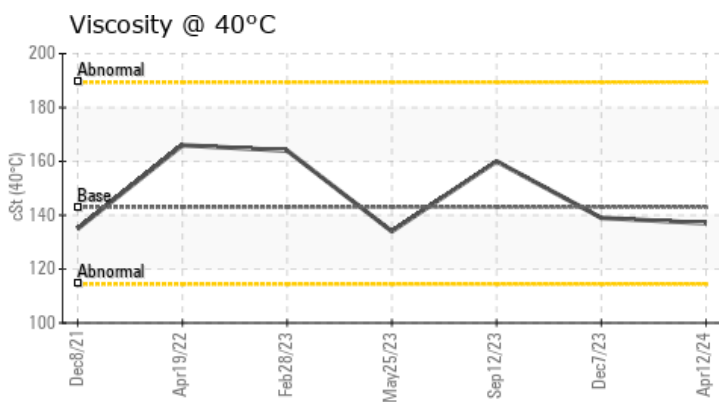
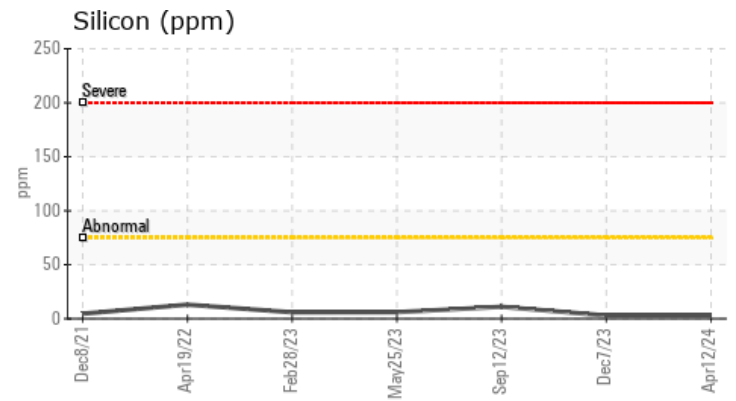
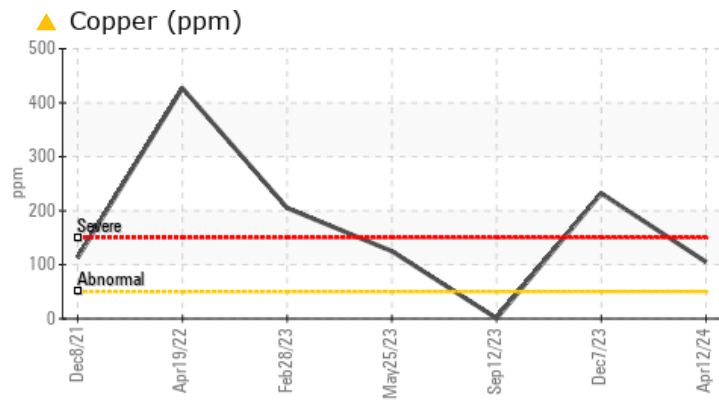
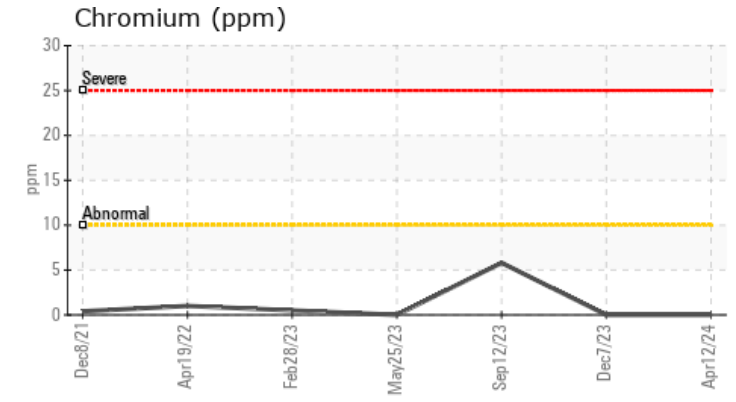
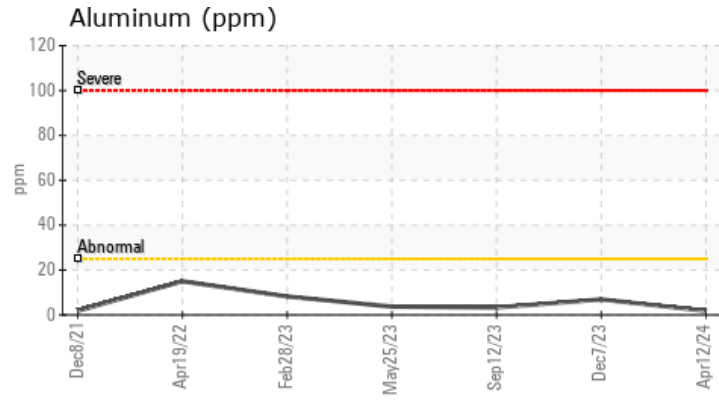
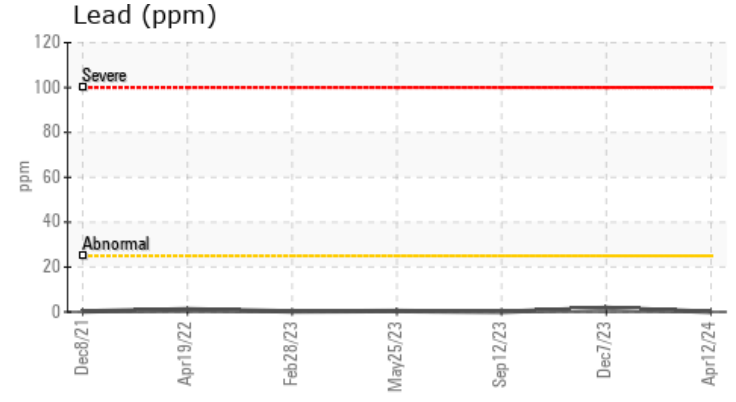
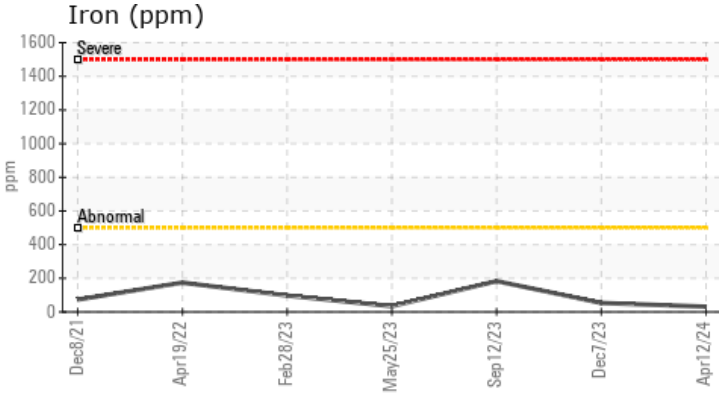
**Depot:** BELBOU  
**Unique No:** 10996153  
**Signed:** Jonathan Hester  
**Report Date:** 30 Apr 2024



# CONSTRUCTION EQUIPMENT



## VOLVO GRAPHS





# CONSTRUCTION EQUIPMENT

SPM701405 SENNEBOGEN 835ME 835.0.2718 - REAR LEFT FINAL DRIVE



**Sample No:** VCP443536  
**Oil Type:** GEAR OIL SAE 80W90  
**Job No:** SPM701405



## SAMPLE INFORMATION

Sample Number	<b>VCP443536</b>	VCP433817	VCP415008	VCP423389
Sample Date	<b>12 Apr 2024</b>	07 Dec 2023	12 Sep 2023	25 May 2023
Machine Hours	<b>9760</b>	8880	8383	7855
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Changed	Not Chngd	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	NORMAL

**BELSON STEEL**  
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BOURBONNAIS, IL  
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F:

## OIL CONDITION

Visc @ 40°C	cSt	<b>138</b>	137	159	145
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## CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	<b>1</b>	2	11	2
Sodium	ppm	<b>0</b>	<1	11	0
Potassium	ppm	<b>0</b>	<1	4	<1

## Diagnosis

No corrective action is recommended at this time. We recommend an early resample to monitor this condition. The copper level is abnormal. High concentration of visible metal present. All other 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.

## WEAR METALS

Iron	ppm	<b>38</b>	40	186	9
Copper	ppm	<b>▲ 125</b>	20	<1	6
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>&lt;1</b>	<1	0	0
Aluminum	ppm	<b>2</b>	<1	3	0
Chromium	ppm	<b>0</b>	0	6	0
Molybdenum	ppm	<b>0</b>	0	<1	0
Nickel	ppm	<b>0</b>	0	<1	0
Titanium	ppm	<b>0</b>	0	<1	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>4</b>	1	6	<1
Vanadium	ppm	<b>0</b>	0	0	0

## ADDITIVES

Calcium	ppm	<b>16</b>	39	58	143
Magnesium	ppm	<b>2</b>	<1	2	4
Zinc	ppm	<b>44</b>	23	17	71
Phosphorus	ppm	<b>490</b>	653	288	1871
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>7</b>	20	0	169

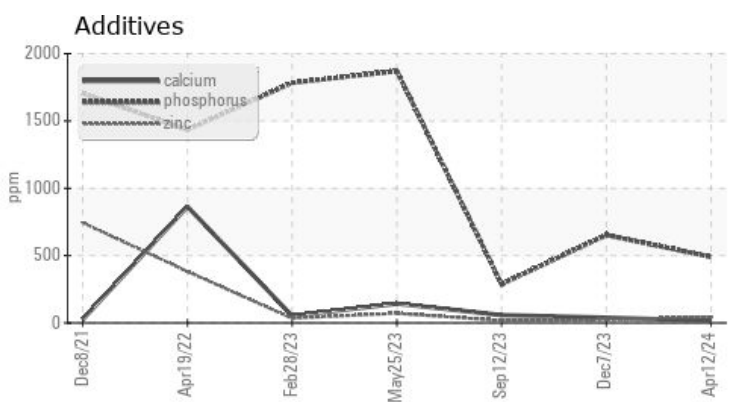
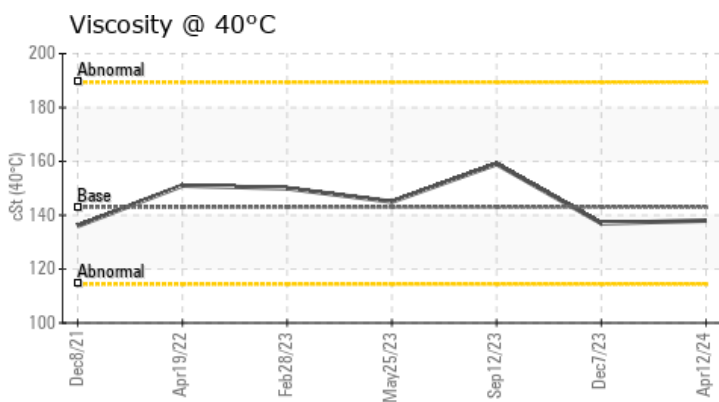
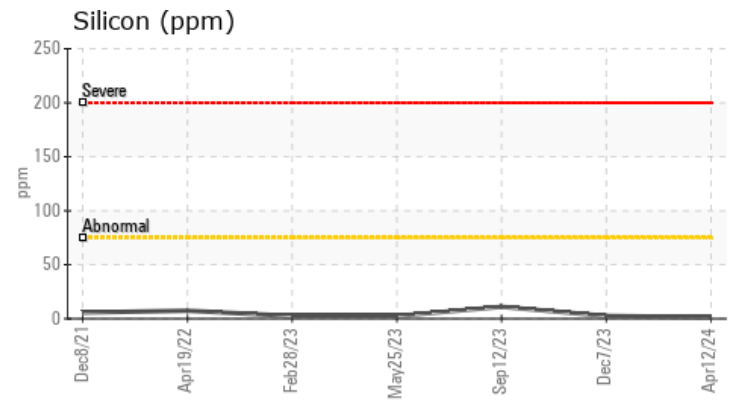
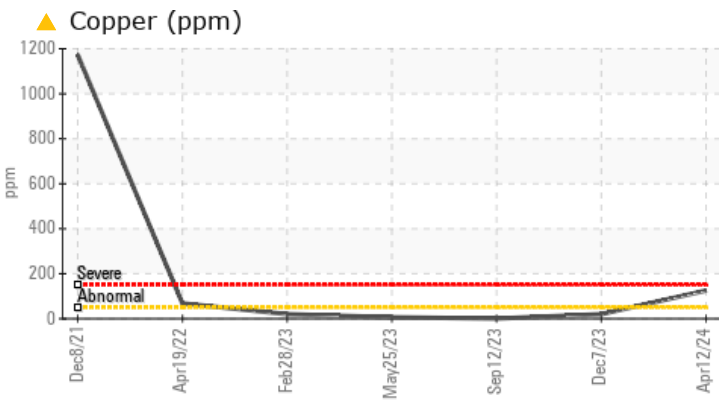
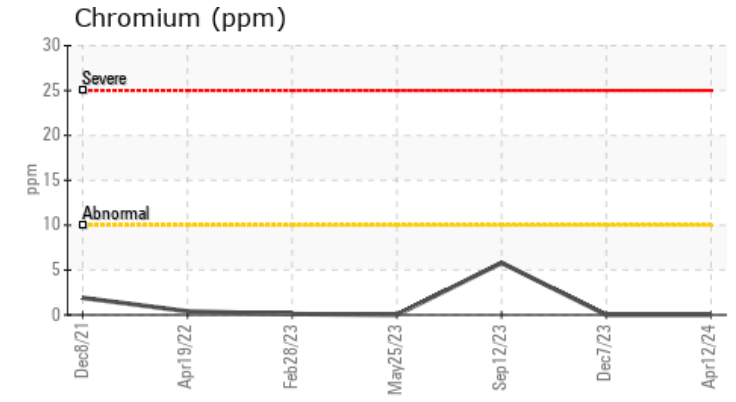
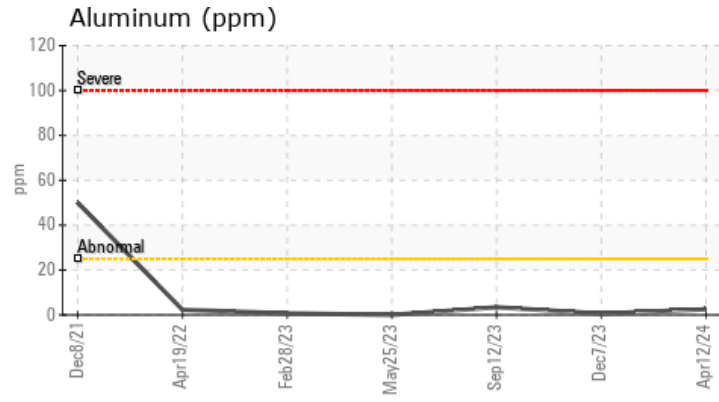
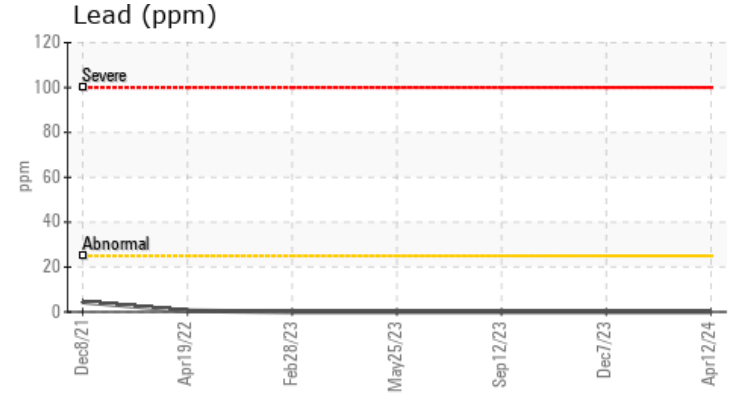
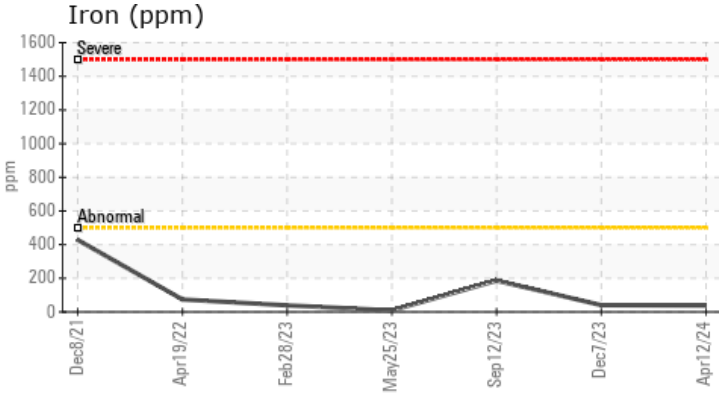
**Depot:** BELBOU  
**Unique No:** 10996151  
**Signed:** Jonathan Hester  
**Report Date:** 30 Apr 2024



# CONSTRUCTION EQUIPMENT



## VOLVO GRAPHS







# CONSTRUCTION EQUIPMENT

SPM701405 SENNEBOGEN 835ME 835.0.2718 - REAR AXLE



**Sample No:** VCP06160725  
**Oil Type:** GEAR OIL SAE 80W90  
**Job No:** SPM701405



## SAMPLE INFORMATION

Sample Number	<b>VCP06160725</b>	VCP433820	VCP415017	VCP423378
Sample Date	<b>12 Apr 2024</b>	07 Dec 2023	12 Sep 2023	25 May 2023
Machine Hours	<b>9760</b>	8880	8383	7855
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Changed	Not Chngd	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**BELSON STEEL**  
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BOURBONNAIS, IL  
US 60914  
Contact: M. POZAN  
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F:



## OIL CONDITION

Visc @ 40°C	cSt	<b>167</b>	136	160	144
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## CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	<b>12</b>	3	11	2
Sodium	ppm	<b>8</b>	2	10	0
Potassium	ppm	<b>1</b>	3	3	<1

## 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.



## WEAR METALS

Iron	ppm	<b>109</b>	10	184	8
Copper	ppm	<b>6</b>	2	<1	6
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>&lt;1</b>	<1	0	0
Aluminum	ppm	<b>&lt;1</b>	<1	3	0
Chromium	ppm	<b>3</b>	0	6	0
Molybdenum	ppm	<b>0</b>	0	<1	0
Nickel	ppm	<b>0</b>	0	<1	0
Titanium	ppm	<b>2</b>	0	<1	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>3</b>	<1	6	<1
Vanadium	ppm	<b>0</b>	0	0	0



## ADDITIVES

Calcium	ppm	<b>331</b>	22	43	141
Magnesium	ppm	<b>16</b>	7	2	4
Zinc	ppm	<b>157</b>	16	13	70
Phosphorus	ppm	<b>945</b>	538	293	1878
Barium	ppm	<b>&lt;1</b>	<1	0	0
Boron	ppm	<b>30</b>	7	0	171

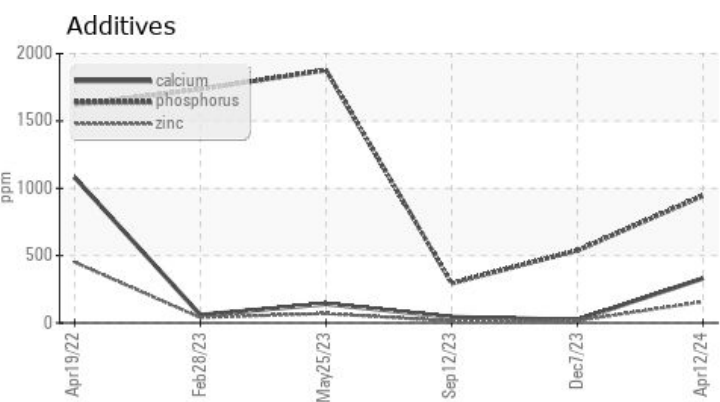
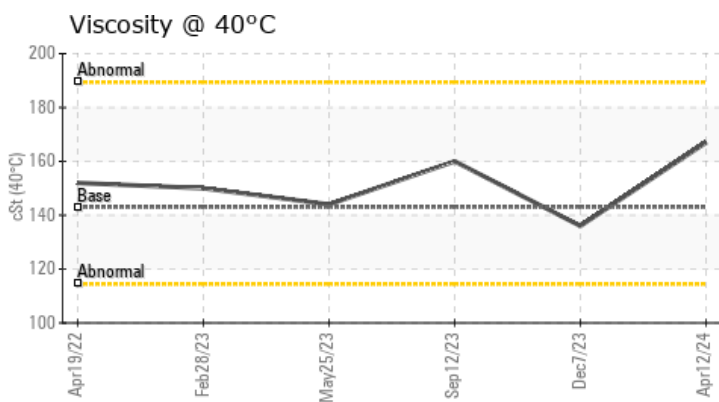
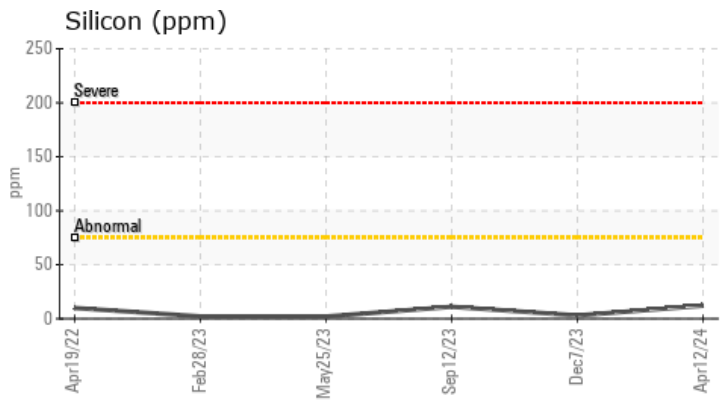
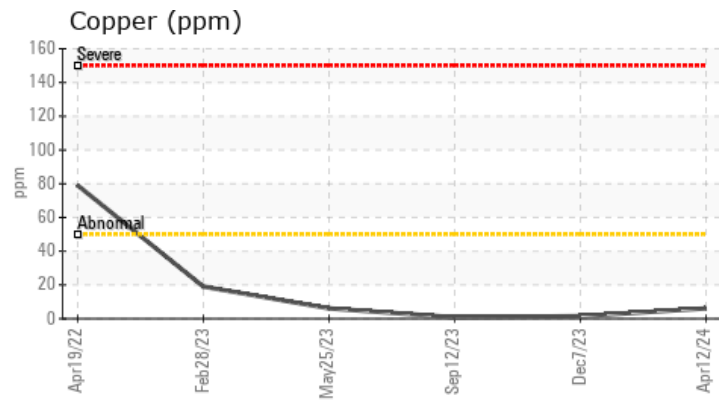
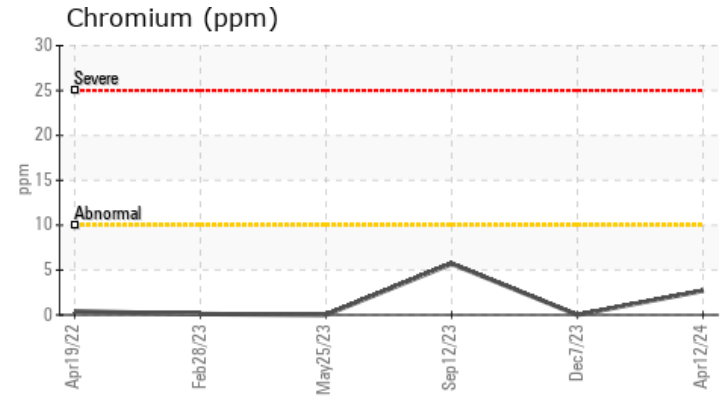
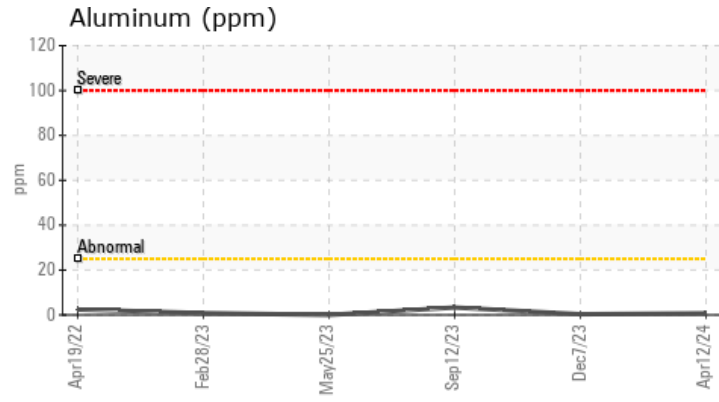
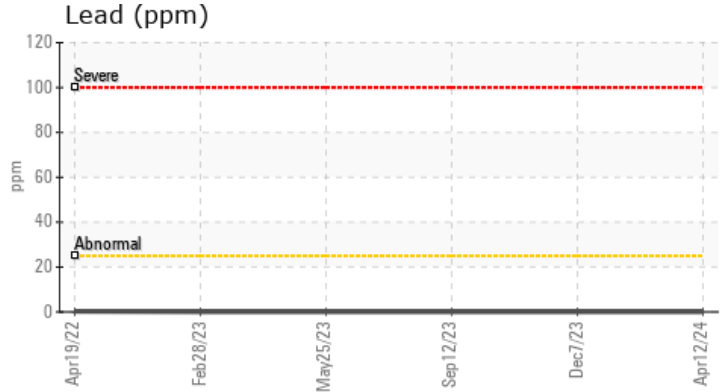
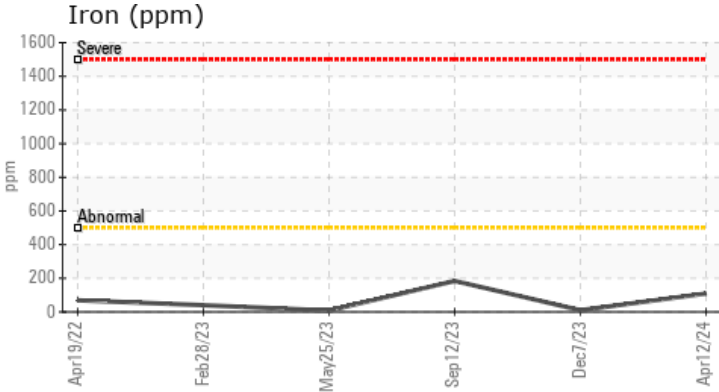
**Depot:** BELBOU  
**Unique No:** 10996148  
**Signed:** Jonathan Hester  
**Report Date:** 30 Apr 2024



# CONSTRUCTION EQUIPMENT



## VOLVO GRAPHS



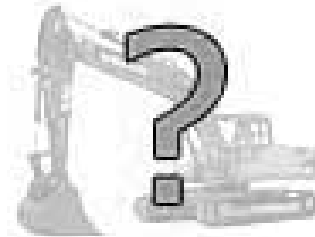


# CONSTRUCTION EQUIPMENT

SPM701405 SENNEBOGEN 835ME 835.0.2718 - REAR RIGHT FINAL DRIVE



**Sample No:** VCP425148  
**Oil Type:** GEAR OIL SAE 80W90  
**Job No:** SPM701405



## SAMPLE INFORMATION

Sample Number	<b>VCP425148</b>	VCP433450	VCP415016	VCP423390
Sample Date	<b>12 Apr 2024</b>	07 Dec 2023	12 Sep 2023	25 May 2023
Machine Hours	<b>9760</b>	8880	8383	7855
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Changed	Not Chngd	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**BELSON STEEL**  
1685 N STATE RTE 50  
BOURBONNAIS, IL  
US 60914  
Contact: M. POZAN  
mpozan@belsonsteel.com  
T: (815)932-7416  
F:

## OIL CONDITION

Visc @ 40°C	cSt	<b>139</b>	137	160	144
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## CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	<b>2</b>	3	11	3
Sodium	ppm	<b>0</b>	<1	10	0
Potassium	ppm	<b>0</b>	1	4	1

## 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.

## WEAR METALS

Iron	ppm	<b>58</b>	47	179	11
Copper	ppm	<b>28</b>	29	<1	8
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>&lt;1</b>	<1	0	0
Aluminum	ppm	<b>0</b>	1	4	0
Chromium	ppm	<b>0</b>	0	6	0
Molybdenum	ppm	<b>0</b>	0	<1	0
Nickel	ppm	<b>0</b>	0	<1	0
Titanium	ppm	<b>0</b>	0	<1	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>1</b>	2	6	<1
Vanadium	ppm	<b>0</b>	0	0	0

## ADDITIVES

Calcium	ppm	<b>40</b>	39	61	146
Magnesium	ppm	<b>3</b>	1	2	3
Zinc	ppm	<b>26</b>	29	15	76
Phosphorus	ppm	<b>664</b>	647	282	1960
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>16</b>	20	0	176

**Depot:** BELBOU  
**Unique No:** 10996154  
**Signed:** Wes Davis  
**Report Date:** 30 Apr 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

