



MILLINGTON, TN

June 17, 2021

Blues City Brewery

Subject: June vibration service

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Most of the machines surveyed were found to be in good condition with the exception of the following:

**QualiTest®** uses a four step rating system for defects.

**Class I:** Defect is present, but effect on reliability is not clear; no immediate action is required. Continue to normally monitor.

**Class II:** Defect (s) present that may cause problem in long term (2-6 months.). Repair during normal maintenance scheduling. Continue to monitor.

**Class III:** Defect (s) present that may cause failure in short term (less than 2 months.). This should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency.

**Class IV:** Defect (s) present that makes continued reliability unpredictable, and possibility of secondary damage is high. Repairs should be made ASAP. An unscheduled shutdown should be considered for repairs

**Hi-Speed Industrial Service** tests and inspects industrial machinery and equipment and makes recommendations concerning maintenance and repairs based on its experience in the field of industrial repair and maintenance. The information contained herein is provided as an opinion only, not as a guaranty or warranty of the matters discussed herein.

This completes our assessment of your equipment for this survey. Thank you for your business and don't hesitate to call if you have any comments or questions.

Sincerely,

*David W Shook*

David W. Shook  
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## **Reportable equipment**

### **Boiler Feed Water Pumps #1 South & #2 Middle**

The pump shaft speed vibrations are interacting and causing a destructive beat vibration as they come into phase seen in both units above 0.7"/second velocity peak. We suspect wear in the pumps, debris/build up/damage, pipe strain, or possibly a coupling issue. Inspect as time allows. **Rated a Class II Defect.**

### **Boiler 3 Fan, Motor Bearings**

Bearing defect frequencies are present in the motor vibration data. The acceleration trend has increased this survey. The overalls are above 3 g's RMS. Expect to change out the bearings in the future. **Rated a Class II Defect.**

### **Boiler 3 Fan, Fan Bearings**

The inboard fan bearing shows strong peaks in the acceleration spectrum up around 2500 Hz with peaks around 114 Hz apart. Vibrations are over 4 g's RMS. Expect to change out the bearings in the future. **Rated a Class II Defect.**

### **Service Water Pump 8**

The high shaft speed vibrations in the unit have returned and are the highest on record at 1.4"/second velocity peak overall. There are still signs of loose fasteners, structural looseness, possible misalignment, bent shaft, or coupling defects. Recheck ASAP. **Rated a Class IV Defect.**

### **Service Water Pump 5**

The unit has signs of possible misalignment or coupling defects. Check in the near future. The pump also has multiple non-synchronous vibration peaks in the upper frequencies, which we believe to be bearing defects. **Rated a Class II Defect.**

### **RO Water Pump 2**

This unit still has a vibration at what appears to be vane pass, (5x RPM, 122 HZ). The vibrations are almost 0.5"/sec velocity peak in the time waveform now. There could be wear in the pump, or there could be a flow issue. We recommend further inspection and adjustments of flow related controls, filters, screens, or piping. **Rated a Class II Defect.**

### **Gallery DA Vacuum Pump Skid 1**

We see a large shaft speed vibration at near 1/2"/second velocity peak in the pump. Inspect the unit fasteners and structure for issues. Check the coupling for defects and have the alignment checked. The unit rotor could also be out of balance due to wear. **Rated a Class II Defect.**

### **Filter Cellar Chill Water Circulator Pump 1**

High vibrations are back at 2x line frequency and could indicate an air gap issue in the motor. Air gap issues are variations in the distance between the surface of the rotor and stator. This could be caused by poor machining of the motor housing and end bells or possibly a soft foot. Unbalanced electrical phases can duplicate the vibration also. Start inspections with a precision alignment and soft foot check, followed by a motor phase and voltage analysis up to and including PDMA if necessary. **Rated a Class III Defect.**

### **G Cellar Cold Glycol Pump #2**

Increase in motor axial shaft speed vibration. Inspect for loose fasteners, coupling, and alignment issues. **Rated a Class II Defect.**

### **G Cellar Cold Glycol Pump #5**

Odd increase in motor axial vibration at 4X shaft speed with sidebands or shaft speed harmonics. Inspect for loose fasteners, coupling, and alignment issues. Could be a pump issue too if it has 4 flutes in the impeller. **Rated a Class II Defect.**

### **G Cellar 128 NANO Pump**

Vibrations at shaft speed are still excessive. Ensure all fasteners are tight and support structure is sound. Check for pipe strain. Make sure coupling is in good shape and shaft alignment is precise. **Rated a Class II Defect.**

### **G Cellar 129 NANO Pump**

Motor bearings have signs of early defects. No action required at this time other than ensuring the bearings have lubrication. **Rated a Class I Defect.**

### **Administration HVAC Hot Water Pump**

Motor and pump vibration is near  $\frac{1}{2}$ "/second velocity peak overall. There could still be an alignment or coupling issue. Inspect the coupling and check the shaft alignment. **Rated a Class II Defect.**

Abbreviated Last Measurement Summary  
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Database: Blues\_city.rbm  
Station: POWER HOUSE  
Report Date: 17-Jun-21 13:46

MEASUREMENT POINT -----	OVERALL LEVEL -----	HFD / VHFD -----	MACHINE SPEED -----
AIR COMP 3 - COMPRESSOR #3 - 250HP		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.166 In/Sec	1.868 G-s	1792.0 RPM
12	.165 In/Sec	1.383 G-s	
21	.174 In/Sec	1.809 G-s	
22	.165 In/Sec	1.456 G-s	
23	.125 In/Sec	1.021 G-s	
71	.199 In/Sec	2.529 G-s	3655.7 RPM
72	.099 In/Sec	2.126 G-s	
73	.215 In/Sec	1.725 G-s	
81	.122 In/Sec	1.349 G-s	
82	.120 In/Sec	1.747 G-s	
AIR COMP 4 - COMPRESSOR #4 - 150HP		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.086 In/Sec	.379 G-s	1788.0 RPM
12	.180 In/Sec	.600 G-s	
21	.125 In/Sec	.659 G-s	
22	.435 In/Sec	.352 G-s	
23	.183 In/Sec	.330 G-s	
71	.176 In/Sec	.836 G-s	1785.0 RPM
72	.364 In/Sec	.559 G-s	
73	.173 In/Sec	.796 G-s	
81	.094 In/Sec	.812 G-s	
82	.348 In/Sec	.687 G-s	
AIR COMP 6 - COMPRESSOR #6		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.181 In/Sec	.574 G-s	1788.0 RPM
12	.064 In/Sec	1.707 G-s	
21	.124 In/Sec	.295 G-s	
22	.098 In/Sec	.795 G-s	
23	.076 In/Sec	.445 G-s	
71	.096 In/Sec	.583 G-s	1785.0 RPM
72	.094 In/Sec	.696 G-s	
73	.136 In/Sec	.670 G-s	
81	.093 In/Sec	.917 G-s	
82	.058 In/Sec	.483 G-s	
BFWPMIDLE2 - BOILER FEED WATER PUMP MID 2		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.138 In/Sec	.653 G-s	3540.0 RPM
12	.171 In/Sec	.599 G-s	
21	.197 In/Sec	.390 G-s	

22	.116 In/Sec	.467 G-s
23	.147 In/Sec	.292 G-s
71	.547 In/Sec	1.222 G-s
72	.185 In/Sec	.733 G-s
73	.096 In/Sec	.647 G-s
81	.527 In/Sec	1.018 G-s
82	.075 In/Sec	1.658 G-s

BFWPSOUTH1 - BOILER FEED WATER PUMP S 1 (17-Jun-21)

	OVERALL LEVEL	1-20 KHZ	
11	.195 In/Sec	.106 G-s	3540.0 RPM
12	.082 In/Sec	.398 G-s	
21	.232 In/Sec	.421 G-s	
22	.091 In/Sec	.389 G-s	
23	.063 In/Sec	.459 G-s	
71	.527 In/Sec	.911 G-s	
72	.151 In/Sec	.320 G-s	
73	.067 In/Sec	.242 G-s	

BOILERFAN1 - BOILER FAN #1 (17-Jun-21)

	OVERALL LEVEL	1-20 KHZ	
11	.123 In/Sec	.235 G-s	1750.0 RPM
12	.236 In/Sec	.046 G-s	
21	.086 In/Sec	.721 G-s	
22	.094 In/Sec	.379 G-s	
23	.225 In/Sec	.326 G-s	
71	.164 In/Sec	.068 G-s	
72	.189 In/Sec	.088 G-s	

BOILERFAN3 - BOILER FAN #3 - 1780 RPM Max (17-Jun-21)

	OVERALL LEVEL	1-20 KHZ	
11	.180 In/Sec	3.835 G-s	1780.0 RPM
12	.149 In/Sec	2.890 G-s	
21	.168 In/Sec	2.561 G-s	
22	.229 In/Sec	3.827 G-s	
23	.125 In/Sec	1.879 G-s	
71	.122 In/Sec	4.405 G-s	
72	.097 In/Sec	4.256 G-s	
73	.146 In/Sec	3.512 G-s	
81	.227 In/Sec	.482 G-s	

CR PUMP 1 - CARBON RECIRC PUMP (17-Jun-21)

	OVERALL LEVEL	1-20 KHZ	
11	.044 In/Sec	.147 G-s	3545.0 RPM
12	.049 In/Sec	.114 G-s	
21	.046 In/Sec	.172 G-s	
22	.046 In/Sec	.089 G-s	
23	.053 In/Sec	.024 G-s	
71	.033 In/Sec	.176 G-s	
72	.034 In/Sec	.287 G-s	
73	.024 In/Sec	.032 G-s	
81	.024 In/Sec	.167 G-s	
82	.023 In/Sec	.069 G-s	

SW PUMP 8 - SERVICE WATER PUMP 8 (17-Jun-21)

	OVERALL LEVEL	1-20 KHZ	
11	.301 In/Sec	.408 G-s	3545.0 RPM

12	.535 In/Sec	.407 G-s	
21	.238 In/Sec	.791 G-s	
22	.434 In/Sec	.533 G-s	
23	1.411 In/Sec	.364 G-s	
71	.283 In/Sec	.573 G-s	
72	.248 In/Sec	.643 G-s	
73	.111 In/Sec	.770 G-s	
81	.120 In/Sec	.881 G-s	
82	.145 In/Sec	.848 G-s	
SW PUMP 5 - SERVICE WATER PUMP 5		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.434 In/Sec	.754 G-s	3545.0 RPM
12	.385 In/Sec	.518 G-s	
21	.527 In/Sec	1.663 G-s	
22	.324 In/Sec	2.219 G-s	
23	.185 In/Sec	.808 G-s	
71	.319 In/Sec	3.962 G-s	
72	.248 In/Sec	1.599 G-s	
73	.263 In/Sec	2.879 G-s	
81	.371 In/Sec	4.401 G-s	
82	.190 In/Sec	3.329 G-s	
RO 2 - RO WATER PUMP 2		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.108 In/Sec	.363 G-s	3545.0 RPM
12	.189 In/Sec	.470 G-s	
21	.146 In/Sec	.837 G-s	
22	.287 In/Sec	.343 G-s	
23	.141 In/Sec	.358 G-s	
71	.414 In/Sec	1.222 G-s	
72	.417 In/Sec	.984 G-s	
73	.450 In/Sec	.947 G-s	
81	.198 In/Sec	.850 G-s	
82	.275 In/Sec	.715 G-s	
AMMCOMP 1 - AMMONIA COMP #1		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.121 In/Sec	.018 G-s	3592.0 RPM
12	.148 In/Sec	.040 G-s	
13	.154 In/Sec	.057 G-s	
21	.125 In/Sec	.105 G-s	
22	.184 In/Sec	.041 G-s	
23	.148 In/Sec	.0075 G-s	
71	.086 In/Sec	1.424 G-s	
72	.115 In/Sec	1.127 G-s	
73	.172 In/Sec	.530 G-s	
81	.079 In/Sec	1.083 G-s	
82	.095 In/Sec	.865 G-s	
83	.134 In/Sec	1.331 G-s	
71F	.102 In/Sec	1.113 G-s	
72F	.104 In/Sec	1.271 G-s	
73F	.142 In/Sec	1.368 G-s	
81F	.090 In/Sec	1.186 G-s	
82F	.082 In/Sec	1.033 G-s	
83F	.168 In/Sec	1.065 G-s	

AMMCOMP 2 - AMMONIA COMP - #2 (17-Jun-21)

	OVERALL LEVEL	1-20 KHZ	
11	.049 In/Sec	.129 G-s	3592.0 RPM
12	.094 In/Sec	.050 G-s	
13	.072 In/Sec	.455 G-s	
21	.069 In/Sec	.145 G-s	
22	.074 In/Sec	.163 G-s	
23	.100 In/Sec	.056 G-s	
71	.100 In/Sec	.705 G-s	
72	.235 In/Sec	.669 G-s	
73	.141 In/Sec	.279 G-s	
81	.104 In/Sec	1.276 G-s	
82	.201 In/Sec	.725 G-s	
83	.147 In/Sec	.285 G-s	
71F	.086 In/Sec	.567 G-s	
72F	.255 In/Sec	.573 G-s	
73F	.120 In/Sec	.176 G-s	
81F	.074 In/Sec	.676 G-s	
82F	.150 In/Sec	.746 G-s	
83F	.120 In/Sec	.787 G-s	

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Clarification Of Vibration Units:

Acc	-->	G-s	PK	
Vel	-->	In/Sec	PK	Abbreviated Last Measurement

Summary

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Database: Blues\_city.rbm  
Station: UPPER FLOORS  
Report Date: 17-Jun-21 13:46

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
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2SHWP - 2ND FLOOR S. HOT WATER PUMP			(17-Jun-21)
	OVERALL LEVEL	1-20 KHZ	
11	.033 In/Sec	.151 G-s	3545.0 RPM
12	.055 In/Sec	.368 G-s	
21	.023 In/Sec	.321 G-s	
22	.075 In/Sec	.411 G-s	
23	.087 In/Sec	.192 G-s	
71	.059 In/Sec	.613 G-s	
72	.075 In/Sec	.529 G-s	
73	.091 In/Sec	.851 G-s	
81	.039 In/Sec	.943 G-s	
82	.043 In/Sec	.702 G-s	
GF-VP1 - GALLERY DA VAC PUMP-SKID 1			(17-Jun-21)
	OVERALL LEVEL	1-20 KHZ	
11	.371 In/Sec	.461 G-s	1770.0 RPM
12	.269 In/Sec	.365 G-s	
21	.188 In/Sec	.258 G-s	
22	.338 In/Sec	.130 G-s	
23	.334 In/Sec	.224 G-s	
71	.117 In/Sec	1.085 G-s	3610.8 RPM
72	.240 In/Sec	.703 G-s	

73	.231 In/Sec	.422 G-s
81	.574 In/Sec	1.249 G-s
82	.399 In/Sec	1.824 G-s

GF-DP1 - GALLERY DA DISCH PUMP-SKID 1 (17-Jun-21)

	OVERALL LEVEL	1-20 KHZ	
11	.193 In/Sec	.356 G-s	3520.0 RPM
12	.199 In/Sec	.370 G-s	
21	.197 In/Sec	1.392 G-s	
22	.129 In/Sec	1.245 G-s	
23	.134 In/Sec	.796 G-s	

GF-CP1 - GALLERY DA CIRC PUMP- SKID 1 (17-Jun-21)

	OVERALL LEVEL	1-20 KHZ	
11	.247 In/Sec	.447 G-s	3535.0 RPM
12	.351 In/Sec	.678 G-s	
21	.438 In/Sec	1.077 G-s	
22	.172 In/Sec	.934 G-s	
23	.205 In/Sec	.788 G-s	

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Clarification Of Vibration Units:

Acc	-->	G-s	PK	
Vel	-->	In/Sec	PK	Abbreviated Last Measurement

Summary

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Database: Blues\_city.rbm  
 Station: BREWING 1ST FLOOR  
 Report Date: 17-Jun-21 13:46

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
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\*\*\* NO DATA Was Found That Meets the Report Specification \*\*\*

Abbreviated Last Measurement Summary

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Database: Blues\_city.rbm  
 Station: BREWING BASEMENT  
 Report Date: 17-Jun-21 13:47

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
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\*\*\* NO DATA Was Found That Meets the Report Specification \*\*\*

Abbreviated Last Measurement Summary

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Database: Blues\_city.rbm  
 Station: GRAIN TRANSFER  
 Report Date: 17-Jun-21 13:47

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
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\*\*\* NO DATA Was Found That Meets the Report Specification \*\*\*  
 Abbreviated Last Measurement Summary

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Database: Blues\_city.rbm  
 Station: SUGAR PUMPS  
 Report Date: 17-Jun-21 13:47

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
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V3	- SUGAR TANK VIKING PUMP #3	(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.089 In/Sec	.176 G-s	1750.0 RPM
12	.172 In/Sec	.168 G-s	
21	.088 In/Sec	.730 G-s	
22	.115 In/Sec	.311 G-s	
23	.103 In/Sec	.191 G-s	
31	.112 In/Sec	1.425 G-s	
32	.151 In/Sec	1.164 G-s	
33	.095 In/Sec	.854 G-s	
61	.138 In/Sec	1.810 G-s	
62	.097 In/Sec	.882 G-s	
71	.186 In/Sec	.189 G-s	
72	.093 In/Sec	.144 G-s	

V4	- SUGAR TANK VIKING PUMP #4	(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.034 In/Sec	.291 G-s	1750.0 RPM
12	.057 In/Sec	.344 G-s	
21	.097 In/Sec	.995 G-s	
22	.086 In/Sec	.633 G-s	
23	.124 In/Sec	.560 G-s	
31	.082 In/Sec	.239 G-s	
32	.098 In/Sec	.653 G-s	
33	.126 In/Sec	.395 G-s	
61	.054 In/Sec	.706 G-s	
62	.093 In/Sec	.512 G-s	
72	.092 In/Sec	.995 G-s	

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 Clarification Of Vibration Units:

Acc --> G-s PK  
 Vel --> In/Sec PK

Abbreviated Last Measurement  
 Summary

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Database: Blues\_city.rbm  
 Station: ALCOHOL PUMP ROOM  
 Report Date: 17-Jun-21 13:47

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
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SK1 RO1	- SKID 1 - RO PUMP #1	(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.046 In/Sec	.489 G-s	3555.0 RPM

12	.040 In/Sec	.797 G-s
21	.109 In/Sec	.626 G-s
22	.141 In/Sec	.400 G-s
23	.075 In/Sec	.536 G-s

SK1 RO4	- SKID 1 - RO PUMP #4	(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.049 In/Sec	.149 G-s	3515.0 RPM
12	.108 In/Sec	.138 G-s	
21	.063 In/Sec	.170 G-s	
22	.076 In/Sec	.185 G-s	
23	.084 In/Sec	.138 G-s	

SK1 RO3	- SKID 1 - RO PUMP #3	(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.230 In/Sec	1.003 G-s	3550.0 RPM
12	.211 In/Sec	.732 G-s	
21	.151 In/Sec	.955 G-s	
22	.207 In/Sec	1.092 G-s	
23	.154 In/Sec	.927 G-s	
71	.149 In/Sec	.780 G-s	
72	.171 In/Sec	.859 G-s	
73	.187 In/Sec	.533 G-s	
81	.133 In/Sec	1.176 G-s	
82	.163 In/Sec	.834 G-s	

SK1 RO2	- SKID 1 - RO PUMP #2	(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.095 In/Sec	.657 G-s	3570.0 RPM
12	.046 In/Sec	.835 G-s	
21	.077 In/Sec	.734 G-s	
22	.045 In/Sec	.702 G-s	
23	.051 In/Sec	.297 G-s	
71	.054 In/Sec	.419 G-s	
72	.028 In/Sec	.596 G-s	
73	.102 In/Sec	.466 G-s	
81	.069 In/Sec	.855 G-s	
82	.047 In/Sec	.597 G-s	

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Clarification Of Vibration Units:

Acc	-->	G-s	PK
Vel	-->	In/Sec	PK

Abbreviated Last Measurement

Summary

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Database: Blues\_city.rbm  
 Station: ADMINISTRATIVE AREA  
 Report Date: 17-Jun-21 13:47

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
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HVAC COLD - HVAC COLD GLYCOL CIRC PUMP		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.065 In/Sec	.463 G-s	3600.0 RPM
12	.077 In/Sec	.205 G-s	

21	.101 In/Sec	.336 G-s
22	.068 In/Sec	.403 G-s
23	.088 In/Sec	.333 G-s
71	.156 In/Sec	.408 G-s
72	.124 In/Sec	.319 G-s
73	.081 In/Sec	.313 G-s
81	.202 In/Sec	.362 G-s
82	.112 In/Sec	.326 G-s

HVAC HOT - HVAC HOT WATER CIRC PUMP		(17-Jun-21)	
OVERALL LEVEL		1-20 KHZ	
11	.194 In/Sec	.371 G-s	3600.0 RPM
12	.209 In/Sec	.494 G-s	
21	.214 In/Sec	.627 G-s	
22	.457 In/Sec	1.229 G-s	
23	.491 In/Sec	.425 G-s	
71	.311 In/Sec	.588 G-s	
72	.383 In/Sec	.462 G-s	
73	.156 In/Sec	.371 G-s	
81	.194 In/Sec	.271 G-s	
82	.165 In/Sec	.316 G-s	

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Clarification Of Vibration Units:

Acc --> G-s PK

Vel --> In/Sec PK

Abbreviated Last Measurement

Summary

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Database: Blues\_city.rbm

Station: FILTER CELLAR

Report Date: 17-Jun-21 13:47

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
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CHILL 1 - CHILL WATER CIRC PUMP #1			
		(17-Jun-21)	
OVERALL LEVEL		1-20 KHZ	
11	.717 In/Sec	.737 G-s	3600.0 RPM
12	.136 In/Sec	.712 G-s	
21	.743 In/Sec	1.273 G-s	
22	.193 In/Sec	.722 G-s	
23	.316 In/Sec	1.227 G-s	
71	.216 In/Sec	.831 G-s	
72	.156 In/Sec	.587 G-s	
73	.206 In/Sec	1.434 G-s	
81	.125 In/Sec	.975 G-s	
82	.082 In/Sec	.536 G-s	
WARM GLY 1 - WARM GLYCOL PUMP #1			
		(17-Jun-21)	
OVERALL LEVEL		1-20 KHZ	
11	.040 In/Sec	.427 G-s	3600.0 RPM
12	.062 In/Sec	.201 G-s	
21	.082 In/Sec	.433 G-s	
22	.109 In/Sec	.205 G-s	
23	.127 In/Sec	.146 G-s	
71	.317 In/Sec	.225 G-s	

72	.184 In/Sec	.225 G-s
73	.117 In/Sec	.147 G-s
81	.139 In/Sec	.267 G-s
82	.108 In/Sec	.314 G-s

WARM GLY 2 - WARM GLYCOL PUMP #2		(17-Jun-21)
	OVERALL LEVEL	1-20 KHZ
11	.031 In/Sec	.321 G-s
12	.022 In/Sec	.248 G-s
21	.069 In/Sec	.263 G-s
22	.031 In/Sec	.373 G-s
23	.061 In/Sec	.212 G-s
71	.032 In/Sec	.144 G-s
72	.053 In/Sec	.061 G-s
73	.043 In/Sec	.061 G-s
81	.024 In/Sec	.115 G-s
82	.034 In/Sec	.052 G-s

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Clarification Of Vibration Units:

Acc	-->	G-s	PK	
Vel	-->	In/Sec	PK	Abbreviated Last Measurement

Summary

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Database: Blues\_city.rbm  
 Station: GOVERNMENT CELLAR  
 Report Date: 17-Jun-21 13:47

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
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COLD GLY 2 - COLD GLYCOL PUMP #2		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.094 In/Sec	.223 G-s	3600.0 RPM
12	.125 In/Sec	.361 G-s	
21	.062 In/Sec	.487 G-s	
22	.368 In/Sec	.254 G-s	
23	.495 In/Sec	.318 G-s	
71	.136 In/Sec	.319 G-s	
72	.152 In/Sec	.236 G-s	
73	.084 In/Sec	.208 G-s	
81	.091 In/Sec	.271 G-s	
82	.115 In/Sec	.347 G-s	
COLD GLY 3 - COLD GLYCOL PUMP #3		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.039 In/Sec	.073 G-s	3600.0 RPM
12	.028 In/Sec	.198 G-s	
21	.035 In/Sec	.051 G-s	
22	.032 In/Sec	.047 G-s	
23	.051 In/Sec	.067 G-s	
71	.180 In/Sec	.118 G-s	
72	.055 In/Sec	.134 G-s	
73	.070 In/Sec	.068 G-s	
81	.117 In/Sec	.175 G-s	
82	.061 In/Sec	.197 G-s	

COLD GLY 4 - COLD GLYCOL PUMP #4		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.078 In/Sec	.242 G-s	3600.0 RPM
12	.036 In/Sec	.383 G-s	
21	.083 In/Sec	.401 G-s	
22	.062 In/Sec	.370 G-s	
23	.059 In/Sec	.226 G-s	
71	.054 In/Sec	.893 G-s	
72	.043 In/Sec	.661 G-s	
73	.034 In/Sec	.050 G-s	
81	.030 In/Sec	.106 G-s	
82	.027 In/Sec	.088 G-s	

COLD GLY 5 - COLD GLYCOL PUMP #5		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.335 In/Sec	.148 G-s	3600.0 RPM
12	.168 In/Sec	.053 G-s	
21	.399 In/Sec	.370 G-s	
22	.261 In/Sec	.348 G-s	
23	.399 In/Sec	.132 G-s	
71	.218 In/Sec	.120 G-s	
72	.058 In/Sec	.111 G-s	
73	.186 In/Sec	.041 G-s	
81	.130 In/Sec	.061 G-s	
82	.057 In/Sec	.082 G-s	

PACK GLY 2 - PACKAGING COLD GLYCOL PUMP 2		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.037 In/Sec	1.254 G-s	3600.0 RPM
12	.023 In/Sec	.897 G-s	
21	.040 In/Sec	.974 G-s	
22	.035 In/Sec	.793 G-s	
23	.048 In/Sec	.982 G-s	
71	.034 In/Sec	.238 G-s	
72	.019 In/Sec	.312 G-s	
73	.037 In/Sec	.249 G-s	
81	.021 In/Sec	.410 G-s	
82	.018 In/Sec	.262 G-s	

NANO 126 - NANO SKID PUMP 126		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.135 In/Sec	.556 G-s	3570.0 RPM
12	.153 In/Sec	1.033 G-s	
21	.180 In/Sec	.235 G-s	
22	.124 In/Sec	.416 G-s	
23	.162 In/Sec	.304 G-s	
71	.190 In/Sec	.576 G-s	
72	.138 In/Sec	.571 G-s	
73	.079 In/Sec	.066 G-s	
81	.301 In/Sec	.316 G-s	
82	.083 In/Sec	.334 G-s	

NANO 127 - NANO SKID PUMP 127		(17-Jun-21)	
	OVERALL LEVEL	1-20 KHZ	
11	.105 In/Sec	.182 G-s	3570.0 RPM
12	.124 In/Sec	.996 G-s	

21	.108 In/Sec	.552 G-s
22	.097 In/Sec	.405 G-s
23	.154 In/Sec	.431 G-s
71	.144 In/Sec	.390 G-s
72	.192 In/Sec	.518 G-s
73	.177 In/Sec	.204 G-s
81	.078 In/Sec	.378 G-s
82	.119 In/Sec	.454 G-s

NANO 128 - NANO SKID PUMP 128 (17-Jun-21)  
OVERALL LEVEL 1-20 KHZ

11	.709 In/Sec	.195 G-s	3570.0 RPM
12	.695 In/Sec	.585 G-s	
21	.710 In/Sec	.673 G-s	
22	.265 In/Sec	.642 G-s	
23	.480 In/Sec	.277 G-s	
71	.196 In/Sec	.419 G-s	
72	.591 In/Sec	.347 G-s	
73	.725 In/Sec	.092 G-s	
81	.249 In/Sec	.321 G-s	
82	.384 In/Sec	.254 G-s	

NANO 129 - NANO SKID PUMP 129 (17-Jun-21)  
OVERALL LEVEL 1-20 KHZ

11	.125 In/Sec	.529 G-s	3570.0 RPM
12	.141 In/Sec	1.789 G-s	
21	.114 In/Sec	1.352 G-s	
22	.226 In/Sec	.998 G-s	
23	.158 In/Sec	.981 G-s	
71	.214 In/Sec	.650 G-s	
72	.155 In/Sec	.653 G-s	
73	.181 In/Sec	.273 G-s	
81	.234 In/Sec	.503 G-s	
82	.229 In/Sec	.517 G-s	

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Clarification Of Vibration Units:

Acc --> G-s PK

Vel --> In/Sec PK

Abbreviated Last Measurement

Summary

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Database: Blues\_city.rbm

Station: UNUSED / REMOVED

Report Date: 17-Jun-21 13:47

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD	MACHINE SPEED
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\*\*\* NO DATA Was Found That Meets the Report Specification \*\*\*