

NSP Phase 3 Thornwood Park Project
Wilmette, Illinois

**VIBRATION
MONITORING
REPORT-9**

Mike Zika
Berger Excavating
1205 Garland Rd
Wauconda, IL 60084

September 26, 2022

Cti



4262 Old Grand Ave
Suite 102
Chicago, IL 60031

September 26, 2022

Mike Zika
Berger Excavating
1205 Garland Rd
Wauconda, IL 60084

RE: **Report 9:** - *Ground Vibration Monitoring for the Wilmette NSP Phase 3 Thornwood Park Project located in Wilmette, Illinois.*

Mr. Zika,

Construction Testing and Instrumentation, Inc. (CTI) have prepared this vibration monitoring report to evaluate vibrations during all construction activities. This report summarizes the results of ground vibration monitoring for three seismographs, all located around the surrounding project site (see attached location diagram). This summary report covers the monitoring period from **September 12, 2022 through September 26, 2022.**

The vibration equipment at the site are Geosonic seismographs that have the capacity to record peak particle velocity (PPV) and frequency (Hertz). The maximum allowable peak particle velocity is 0.50 inches per second (IPS), which is based upon the specifications established by the U.S Bureau of Mines (USBM) and a typical threshold for construction vibration monitoring. The seismographs are set to trigger whenever vibration levels exceed 0.003 in/s lowest (PPV) and continuously monitor vibrations during all construction activities.

All vibration recordings during this report period have been below the 0.50-inch per second threshold limit. The maximum PPV for the monitoring period are below.

| | | | | |
|--------------------|--|------------|---|--------------|
| September 13, 2022 | Southwest Corner of Park | Unit #3734 | V | 0.110 (in/s) |
| September 19, 2022 | 2345 Thornwood Avenue | Unit #3733 | L | 0.235 (in/s) |
| September 14, 2022 | East Side of Park – Colgate St. | Unit #3647 | L | 0.068 (in/s) |


V- Vertical Vibration
T- Transversal Vibration
L- Longitudinal Vibration

Sincerely,

Daniel W. McCarthy
Senior Instrumentation Engineer

NSP Phase 3 Thornwood Park Seismograph Locations



 Seismograph Location

SN: 3734 v3.22
Date: 09/12/2022 **Time:** 09:56:00
Event: 113
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

Continuous Monitor Recording

Summary Data

| | L | T | V |
|---------------------------|--------|-------|-------|
| PPV (in/s) | 0.058 | 0.048 | 0.025 |
| FREQ (Hz) | 45.5 | 22.7 | 26.3 |
| Peak Air Pressure: | 101 db | | |

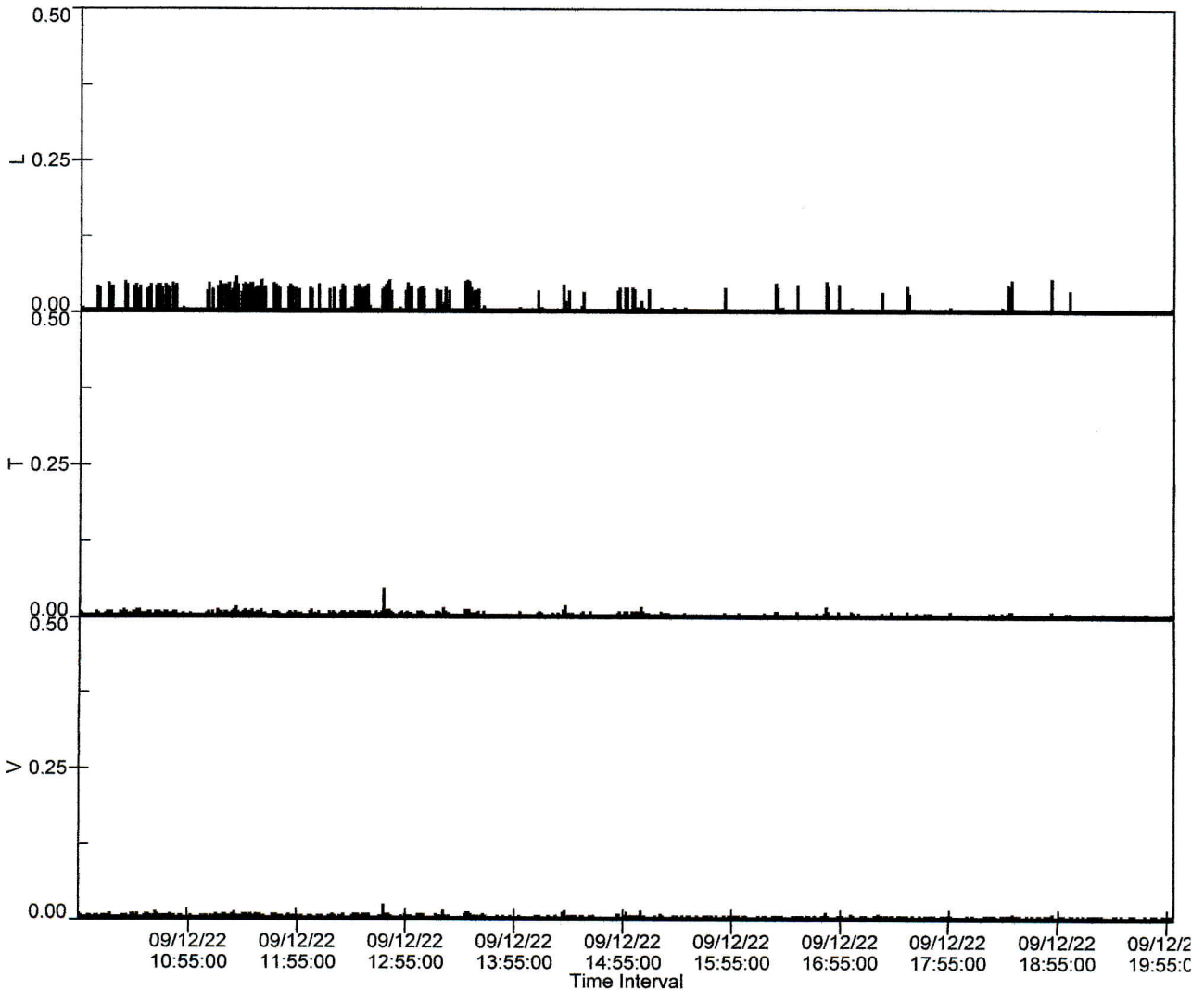
Recording Time: 603 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 113

Record Max PPV: 0.058 in/s Record Max DB: 101 db



SN: 3734 v3.22
Date: 09/13/2022 **Time:** 06:01:00
Event: 114
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|--------|-------|-------|
| PPV (in/s) | 0.105 | 0.080 | 0.110 |
| FREQ (Hz) | 166.7 | 62.5 | 50.0 |
| Peak Air Pressure: | 101 db | | |

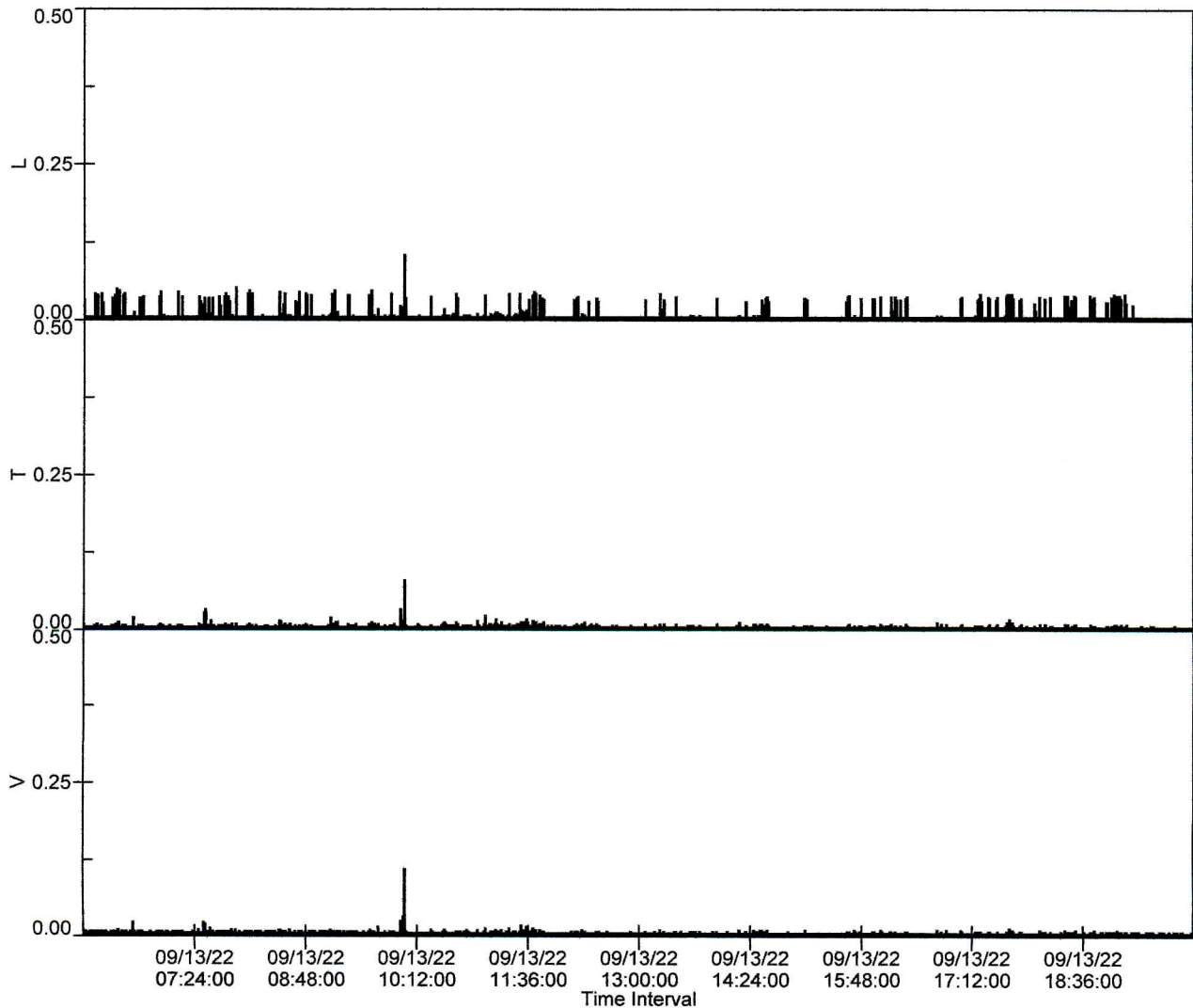
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 114

Record Max PPV: 0.110 in/s Record Max DB: 101 db



SN: 3734 v3.22
Date: 09/15/2022 **Time:** 06:01:00
Event: 116
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

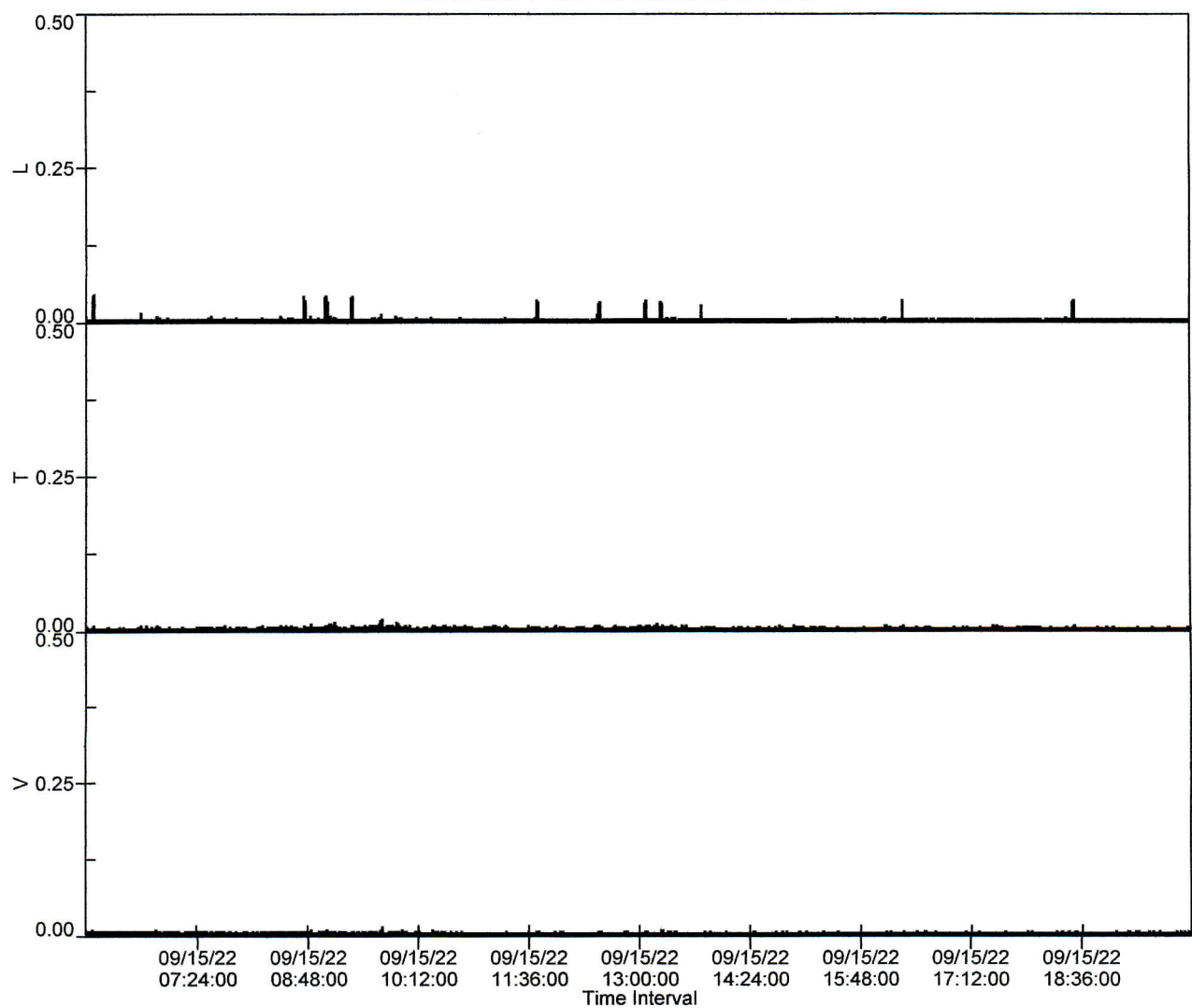
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.045 | 0.020 | 0.015 |
| FREQ (Hz) | 500.0 | 11.4 | 10.0 |
| Peak Air Pressure: | 94 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 116

Record Max PPV: 0.045 in/s Record Max DB: 94 db



SN: 3734 v3.22
Date: 09/16/2022 **Time:** 06:01:00
Event: 117
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

Continuous Monitor Recording

Summary Data

| | L | T | V |
|---------------------------|-------|-------|-------|
| PPV (in/s) | 0.045 | 0.018 | 0.020 |
| FREQ (Hz) | 250.0 | 13.9 | 17.2 |
| Peak Air Pressure: | 98 db | | |

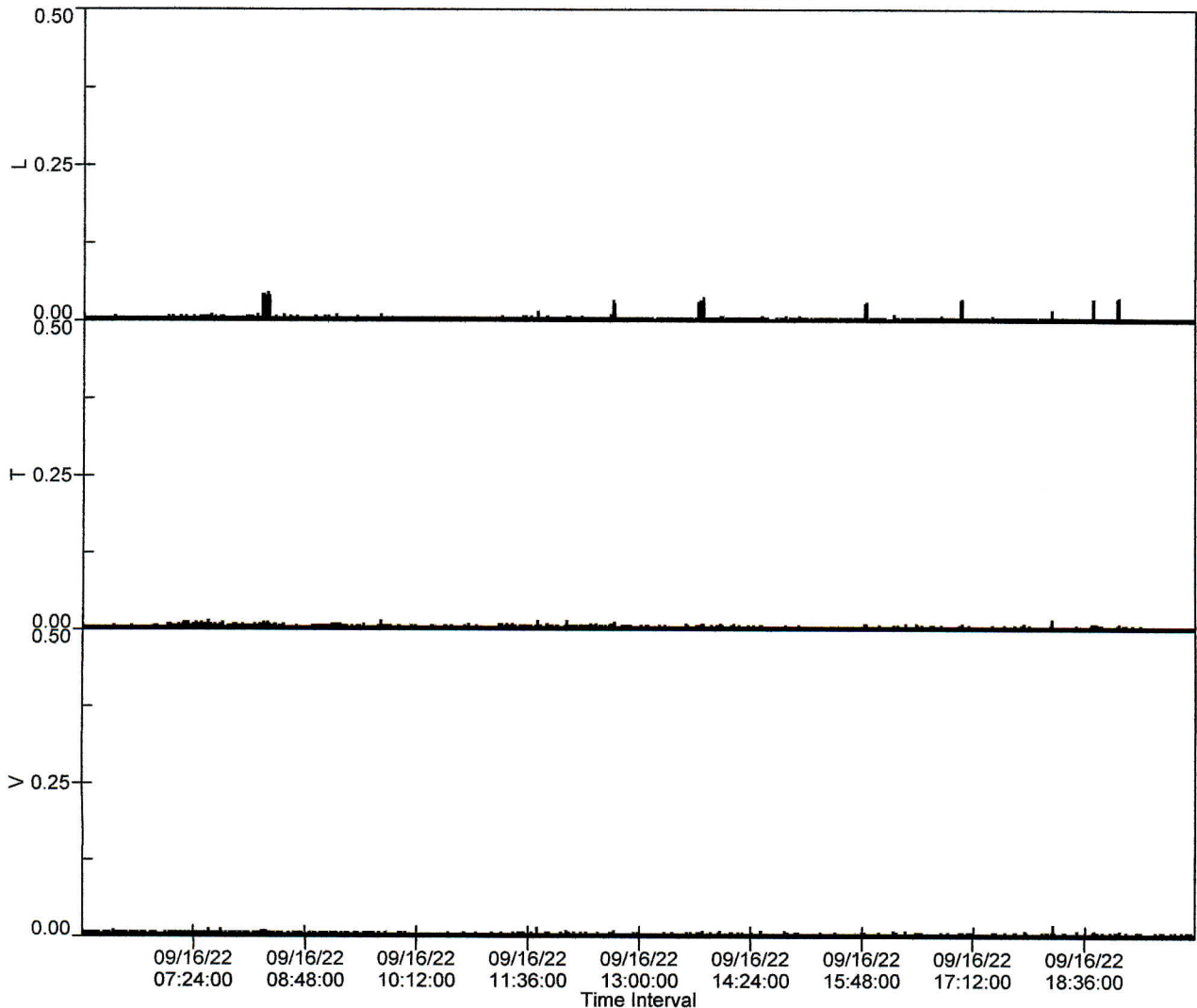
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 117

Record Max PPV: 0.045 in/s Record Max DB: 98 db



SN: 3734 v3.22
Date: 09/17/2022 **Time:** 06:01:00
Event: 118
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

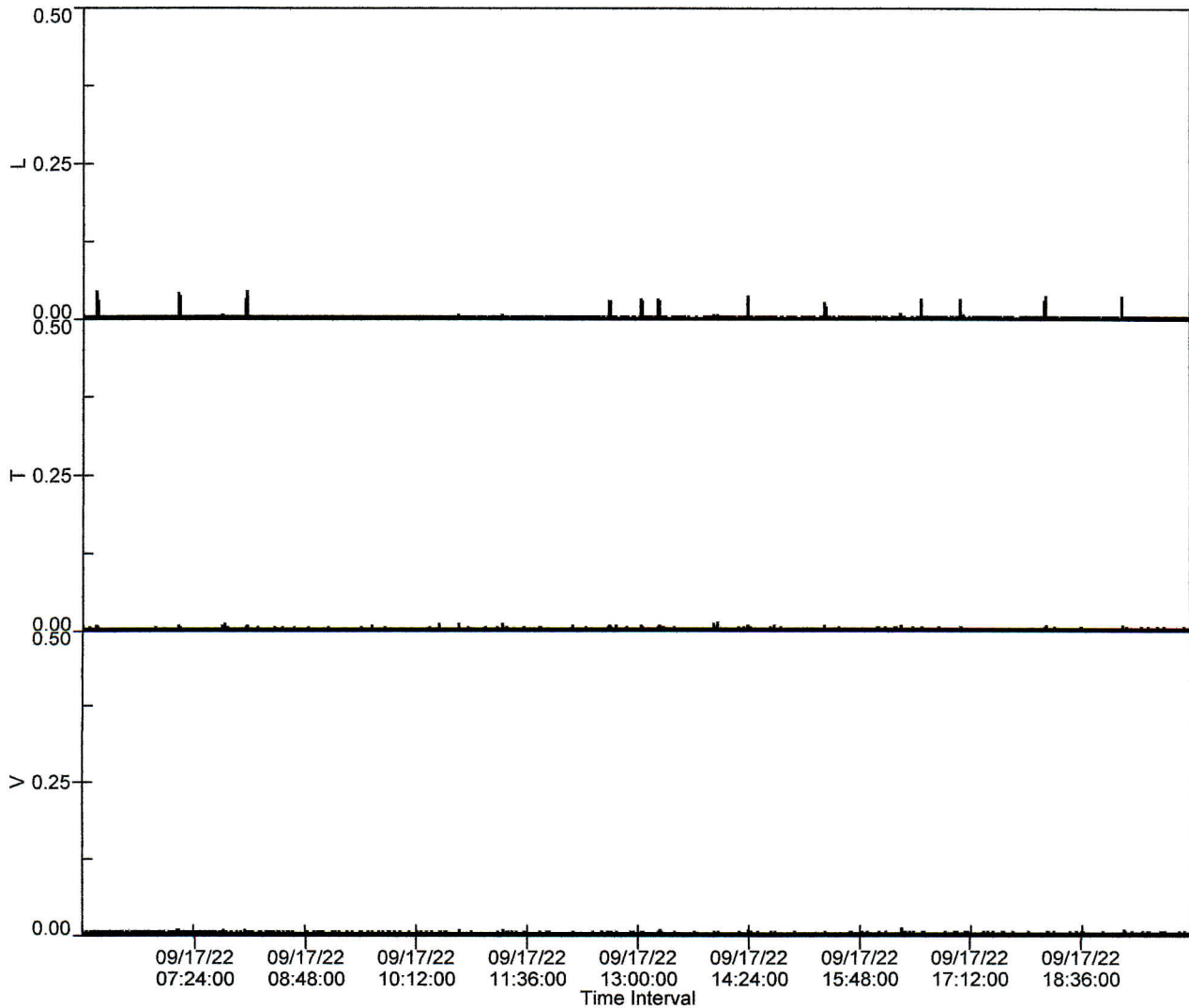
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.045 | 0.015 | 0.013 |
| FREQ (Hz) | 500.0 | 21.7 | 19.2 |
| Peak Air Pressure: | 97 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 118

Record Max PPV: 0.045 in/s Record Max DB: 97 db



SN: 3734 v3.22
Date: 09/18/2022 **Time:** 06:01:00
Event: 119
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

Continuous Monitor Recording

Summary Data

| | L | T | V |
|---------------------------|-------|-------|-------|
| PPV (in/s) | 0.043 | 0.015 | 0.015 |
| FREQ (Hz) | 71.4 | 26.3 | 166.7 |
| Peak Air Pressure: | 98 db | | |

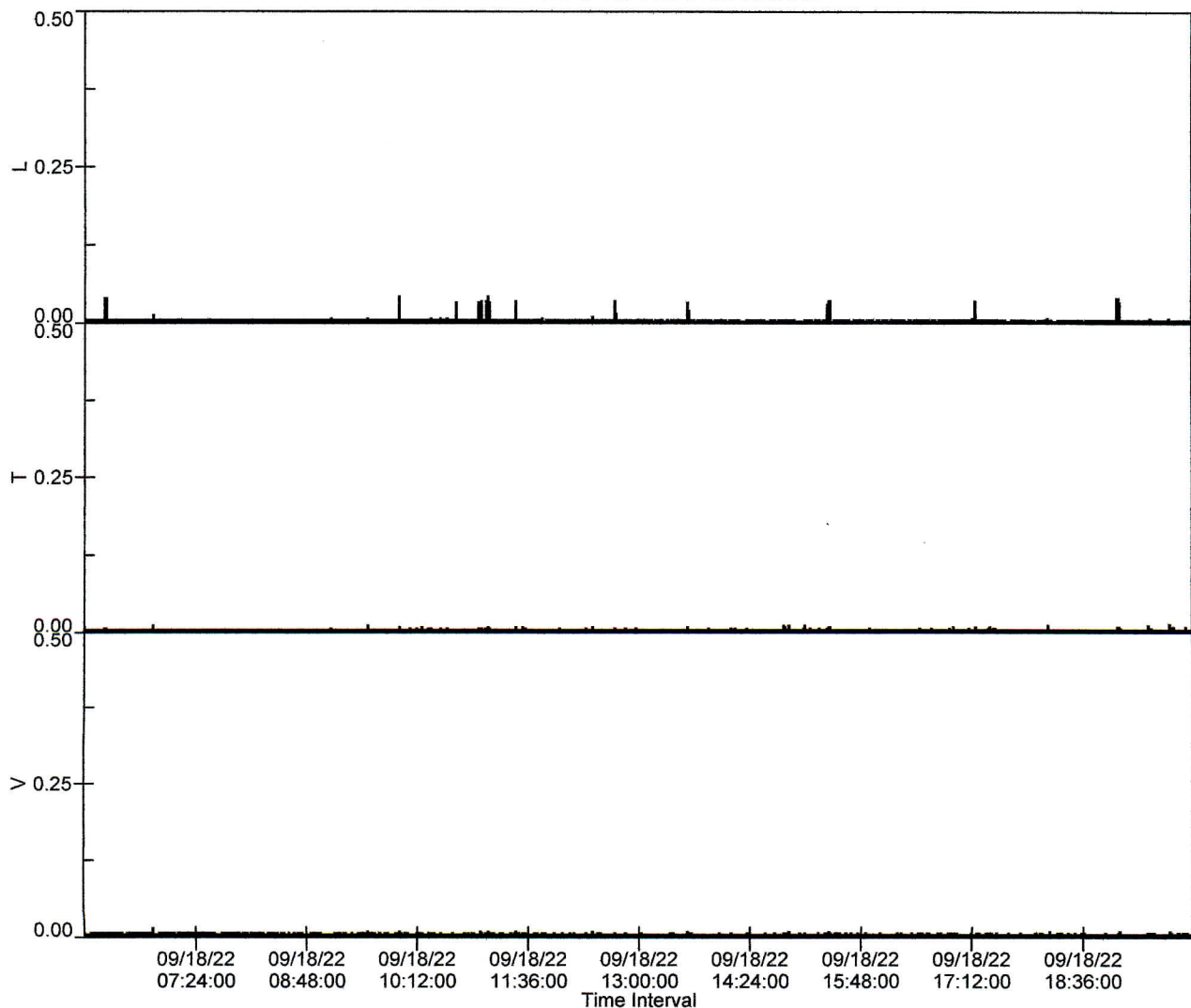
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 119

Record Max PPV: 0.043 in/s Record Max DB: 98 db



SN: 3734 v3.22
Date: 09/19/2022 **Time:** 06:01:00
Event: 120
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

Continuous Monitor Recording

Summary Data

| | L | T | V |
|---------------------------|-------|-------|-------|
| PPV (in/s) | 0.048 | 0.030 | 0.015 |
| FREQ (Hz) | 166.7 | 26.3 | 20.8 |
| Peak Air Pressure: | 92 db | | |

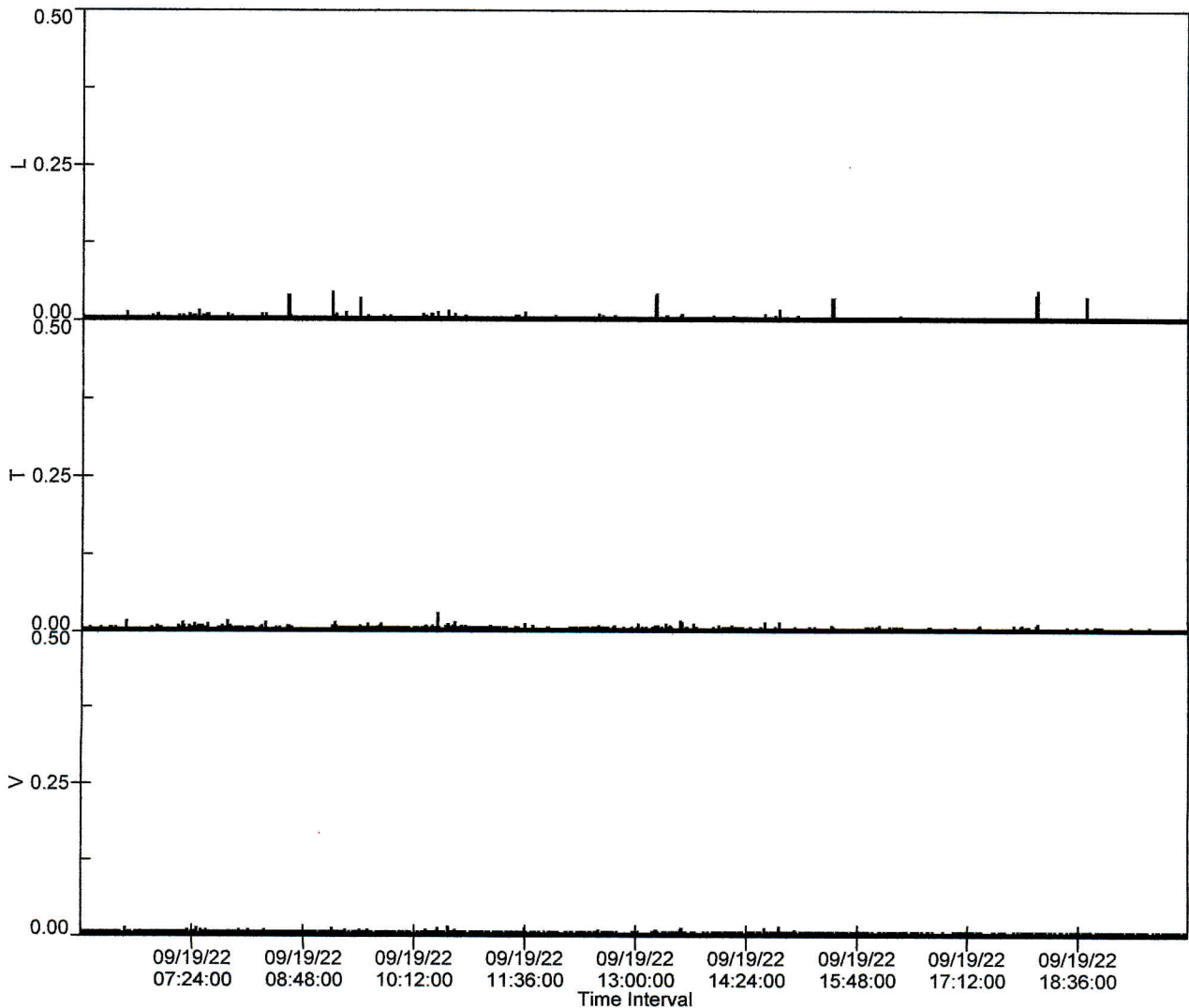
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 120

Record Max PPV: 0.048 in/s Record Max DB: 92 db



SN: 3734 v3.22
Date: 09/21/2022 **Time:** 06:01:00
Event: 122
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|--------|-------|-------|
| PPV (in/s) | 0.040 | 0.033 | 0.033 |
| FREQ (Hz) | 83.3 | 27.8 | 38.5 |
| Peak Air Pressure: | 101 db | | |

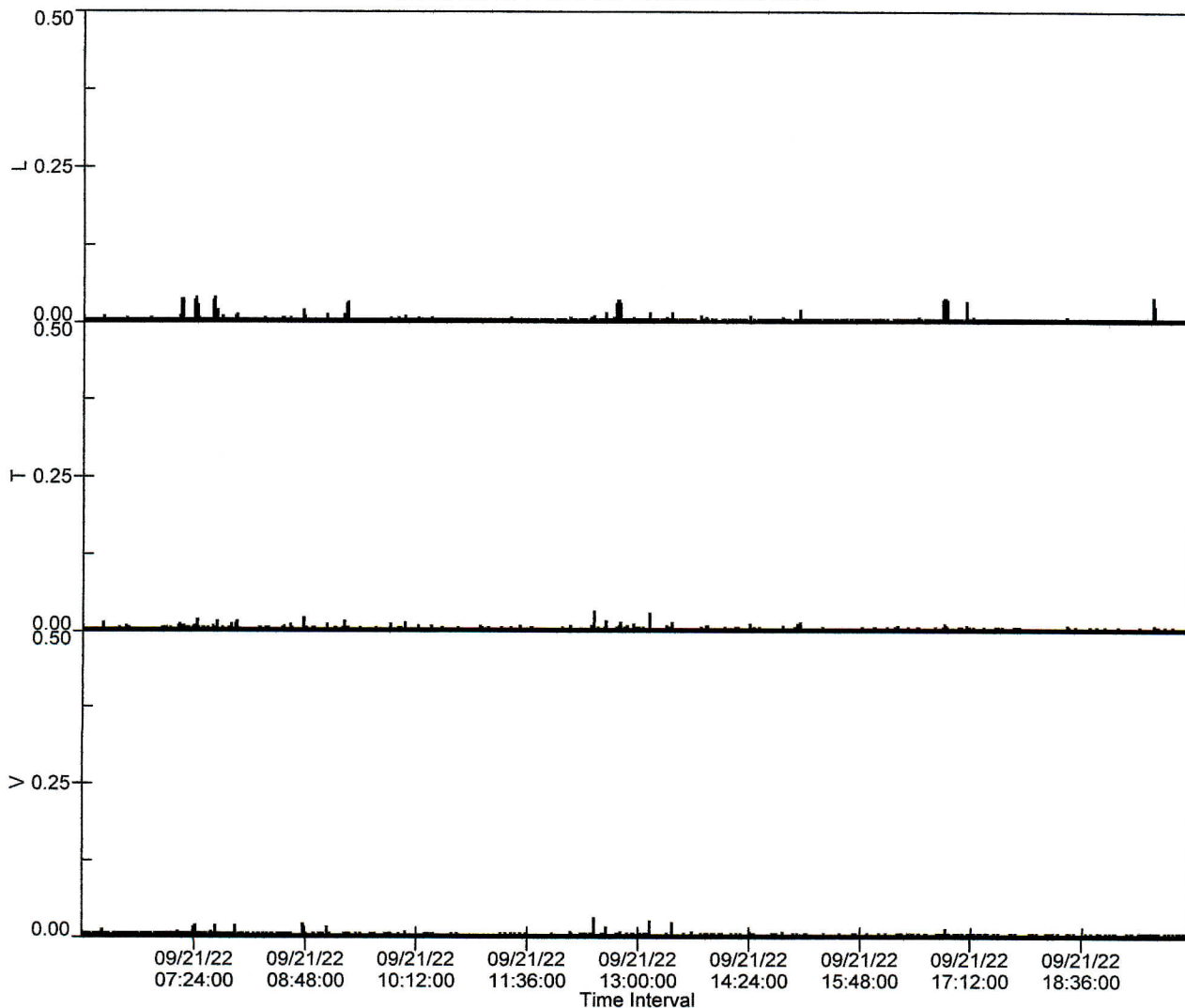
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 122

Record Max PPV: 0.040 in/s Record Max DB: 101 db



SN: 3734 v3.22
Date: 09/22/2022 **Time:** 06:01:00
Event: 123
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|-------|-------|-------|
| PPV (in/s) | 0.058 | 0.025 | 0.018 |
| FREQ (Hz) | 250.0 | 17.2 | 21.7 |
| Peak Air Pressure: | 97 db | | |

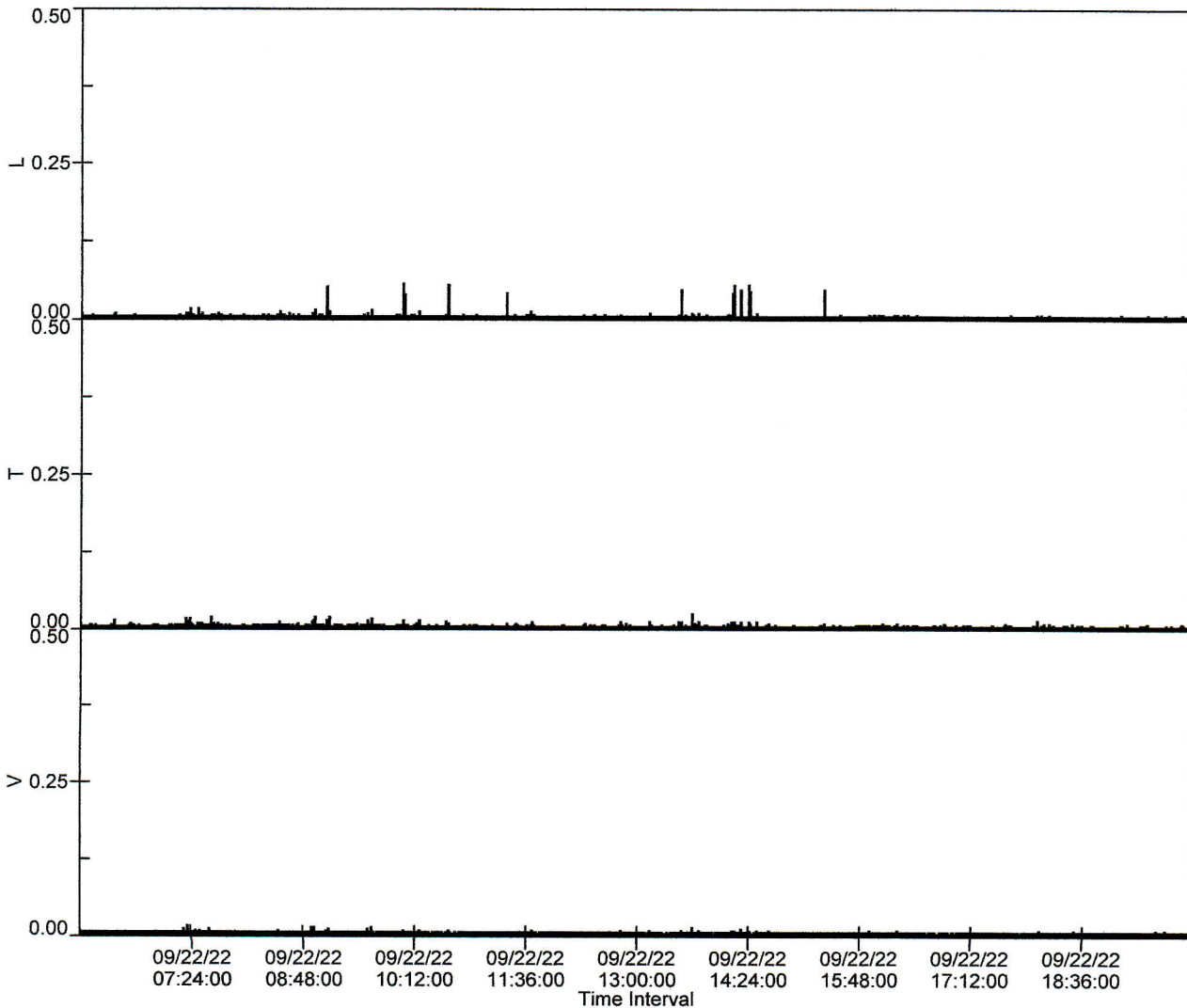
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 123

Record Max PPV: 0.058 in/s Record Max DB: 97 db



SN: 3734 v3.22
Date: 09/23/2022 **Time:** 06:01:00
Event: 124
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

Continuous Monitor Recording

Summary Data

| | L | T | V |
|---------------------------|-------|-------|-------|
| PPV (in/s) | 0.058 | 0.040 | 0.025 |
| FREQ (Hz) | 166.7 | 13.2 | 38.5 |
| Peak Air Pressure: | 95 db | | |

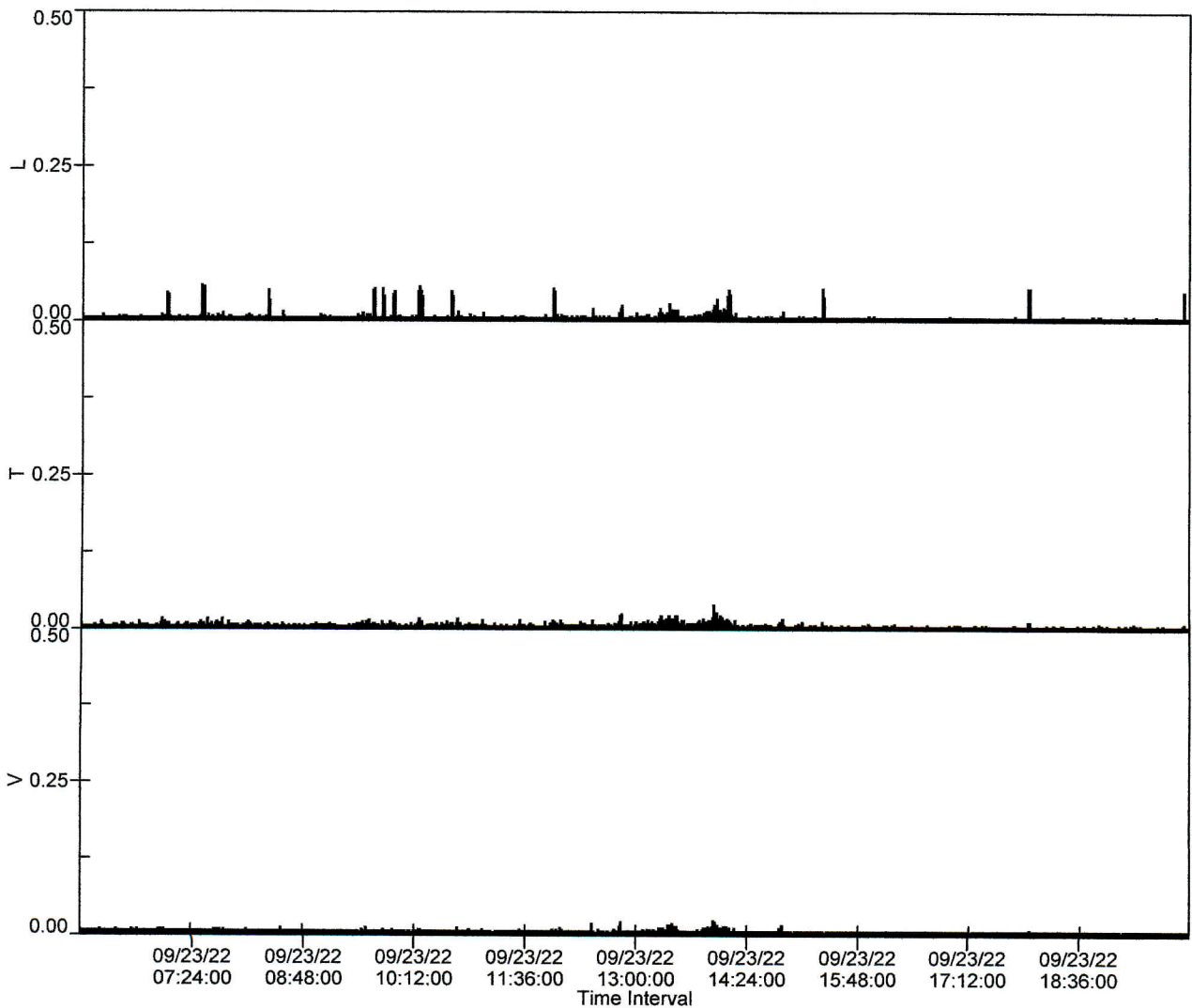
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 124

Record Max PPV: 0.058 in/s Record Max DB: 95 db



SN: 3734 v3.22
Date: 09/24/2022 **Time:** 06:01:00
Event: 125
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|----------------------------------|-------|-------|-------|
| PPV (in/s) | 0.060 | 0.038 | 0.025 |
| FREQ (Hz) | 500.0 | 17.9 | 27.8 |
| Peak Air Pressure: 101 db | | | |

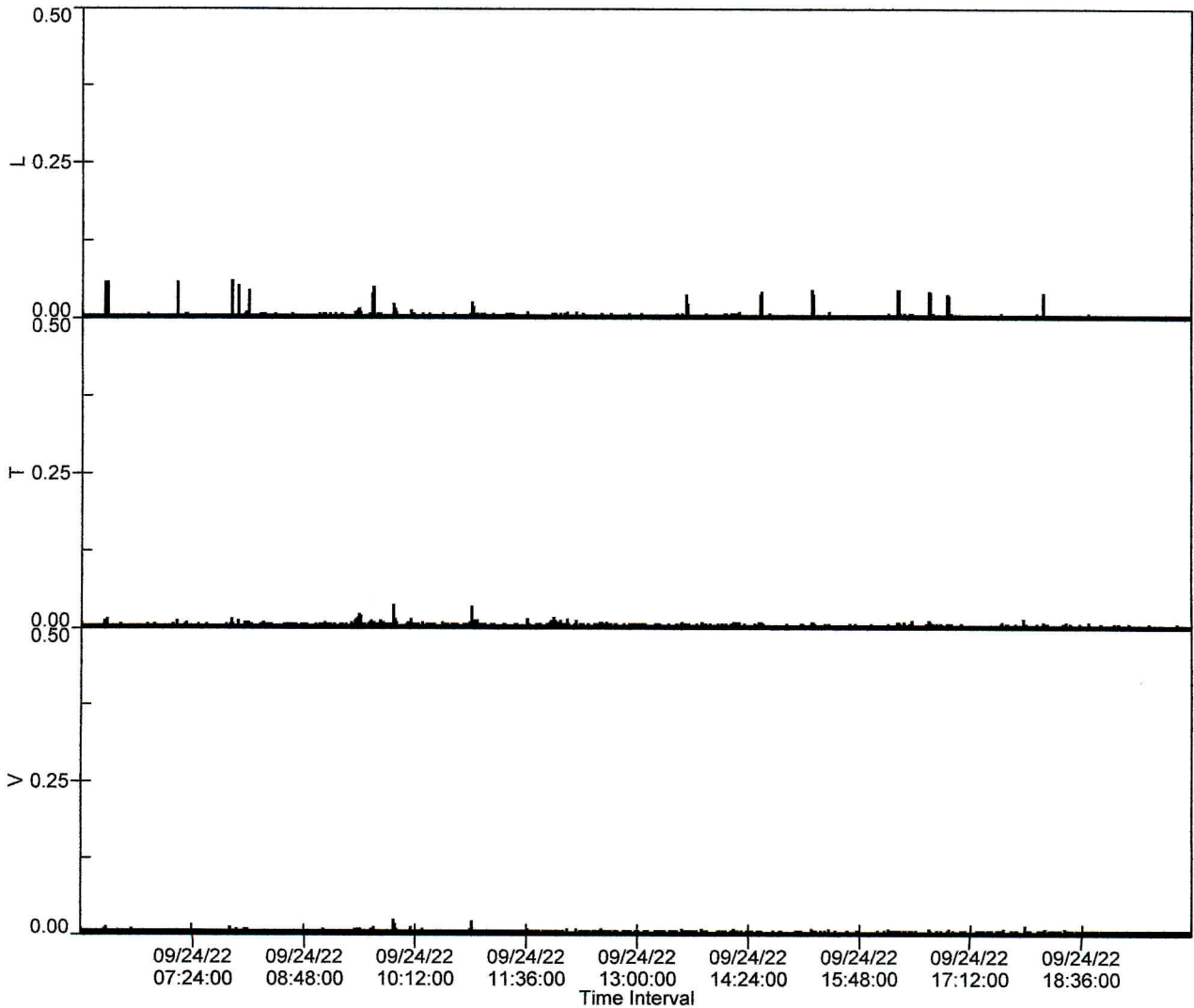
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 125

Record Max PPV: 0.060 in/s Record Max DB: 101 db



SN: 3734 v3.22
Date: 09/25/2022 **Time:** 06:01:00
Event: 126
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

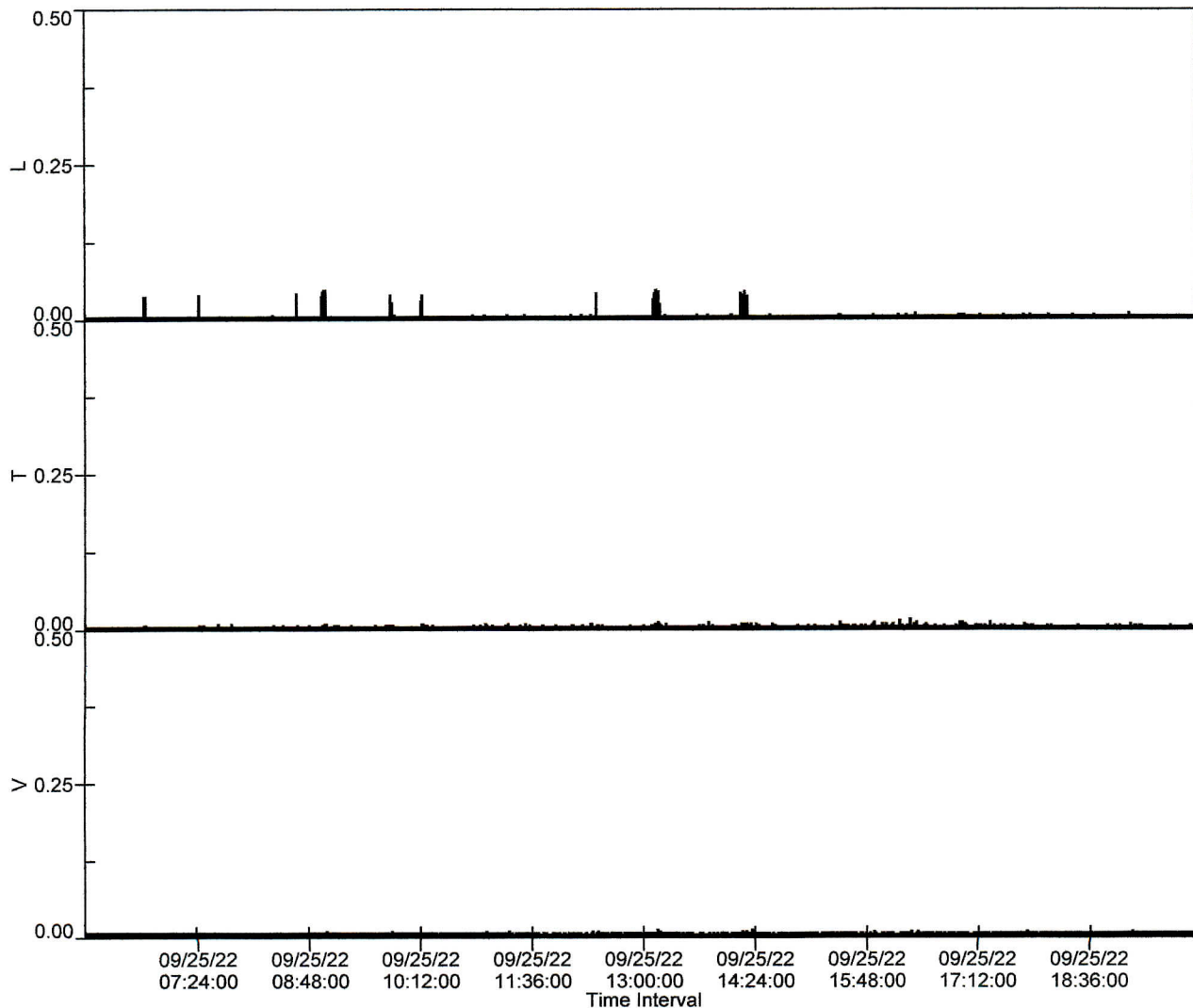
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.048 | 0.018 | 0.013 |
| FREQ (Hz) | 250.0 | 20.0 | 500.0 |
| Peak Air Pressure: | 100 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 126

Record Max PPV: 0.048 in/s Record Max DB: 100 db



SN: 3734 v3.22
Date: 09/26/2022 **Time:** 06:01:00
Event: 127
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|-------|-------|-------|
| PPV (in/s) | 0.078 | 0.083 | 0.063 |
| FREQ (Hz) | 14.7 | 19.2 | 11.4 |
| Peak Air Pressure: | 97 db | | |

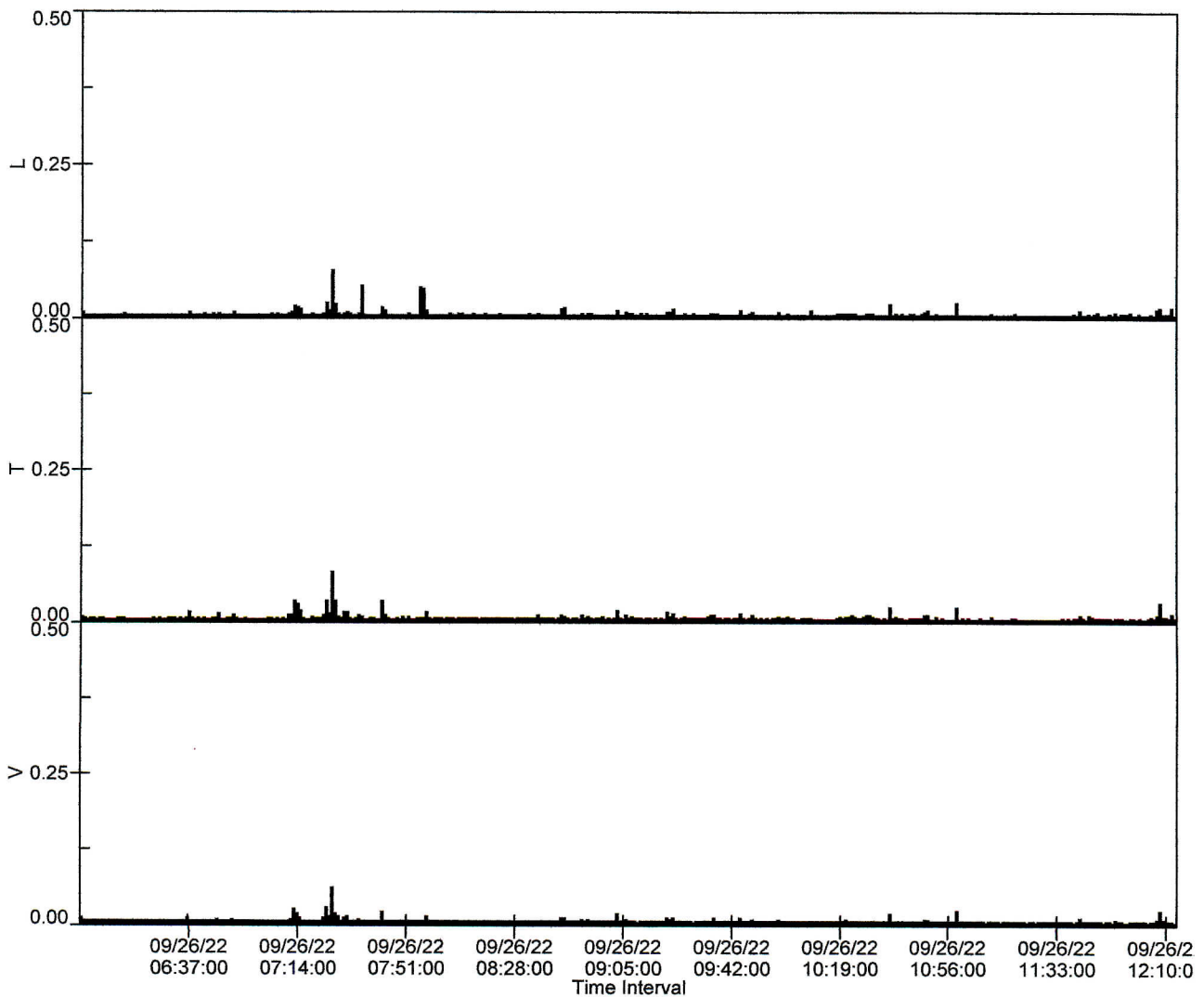
Recording Time: 373 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 127

Record Max PPV: 0.083 in/s Record Max DB: 97 db



SN: 3733 v3.22
Date: 09/12/2022 **Time:** 10:05:00
Event: 113
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

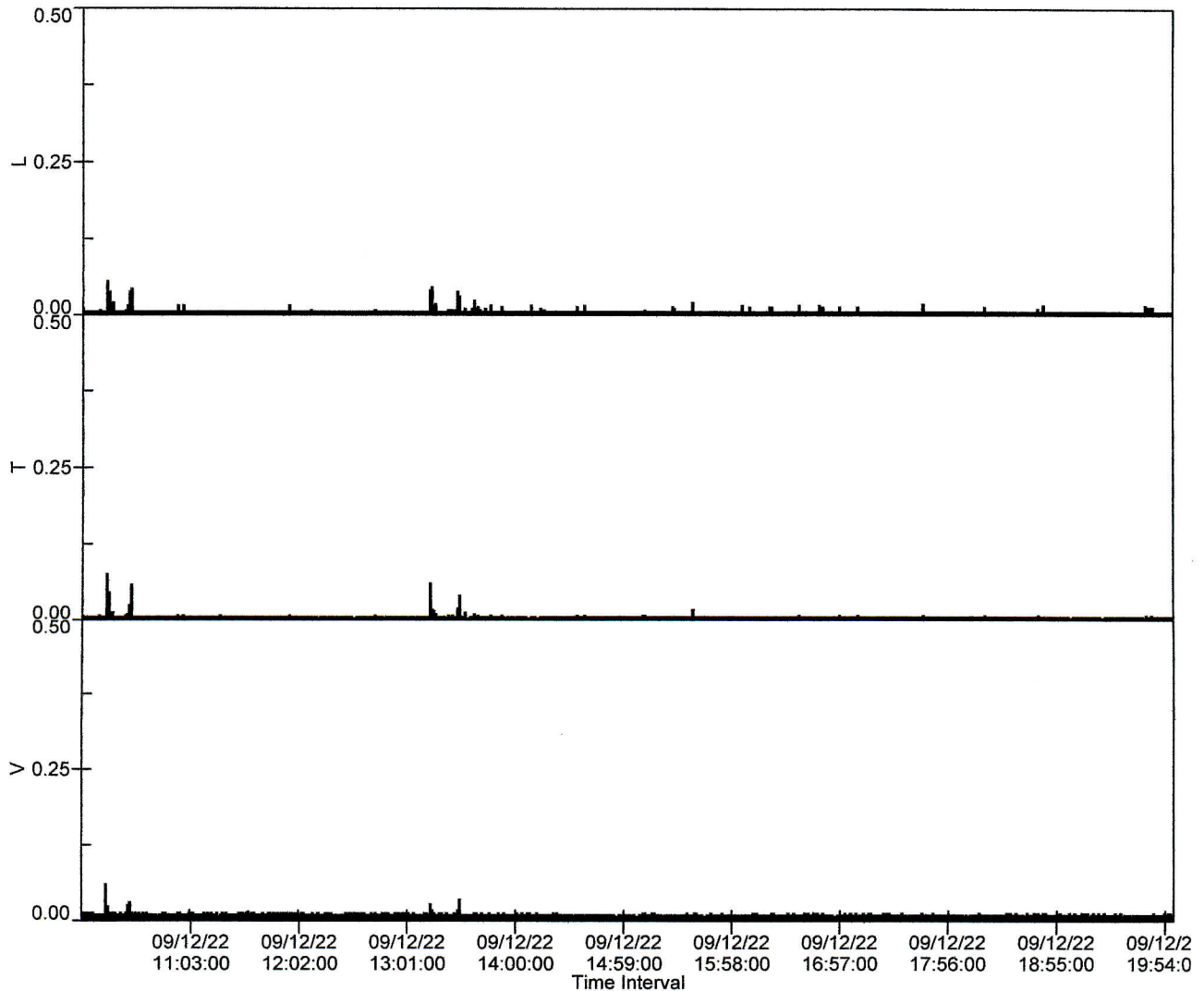
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.055 | 0.075 | 0.060 |
| FREQ (Hz) | 13.9 | 16.1 | 20.0 |
| Peak Air Pressure: | 87 db | | |
| Recording Time: | 594 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 113

Record Max PPV: 0.075 in/s Record Max DB: 87 db



SN: 3733 v3.22
Date: 09/13/2022 **Time:** 06:01:00
Event: 114
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|-------|-------|-------|
| PPV (in/s) | 0.130 | 0.110 | 0.095 |
| FREQ (Hz) | 18.5 | 20.8 | 22.7 |
| Peak Air Pressure: | 84 db | | |

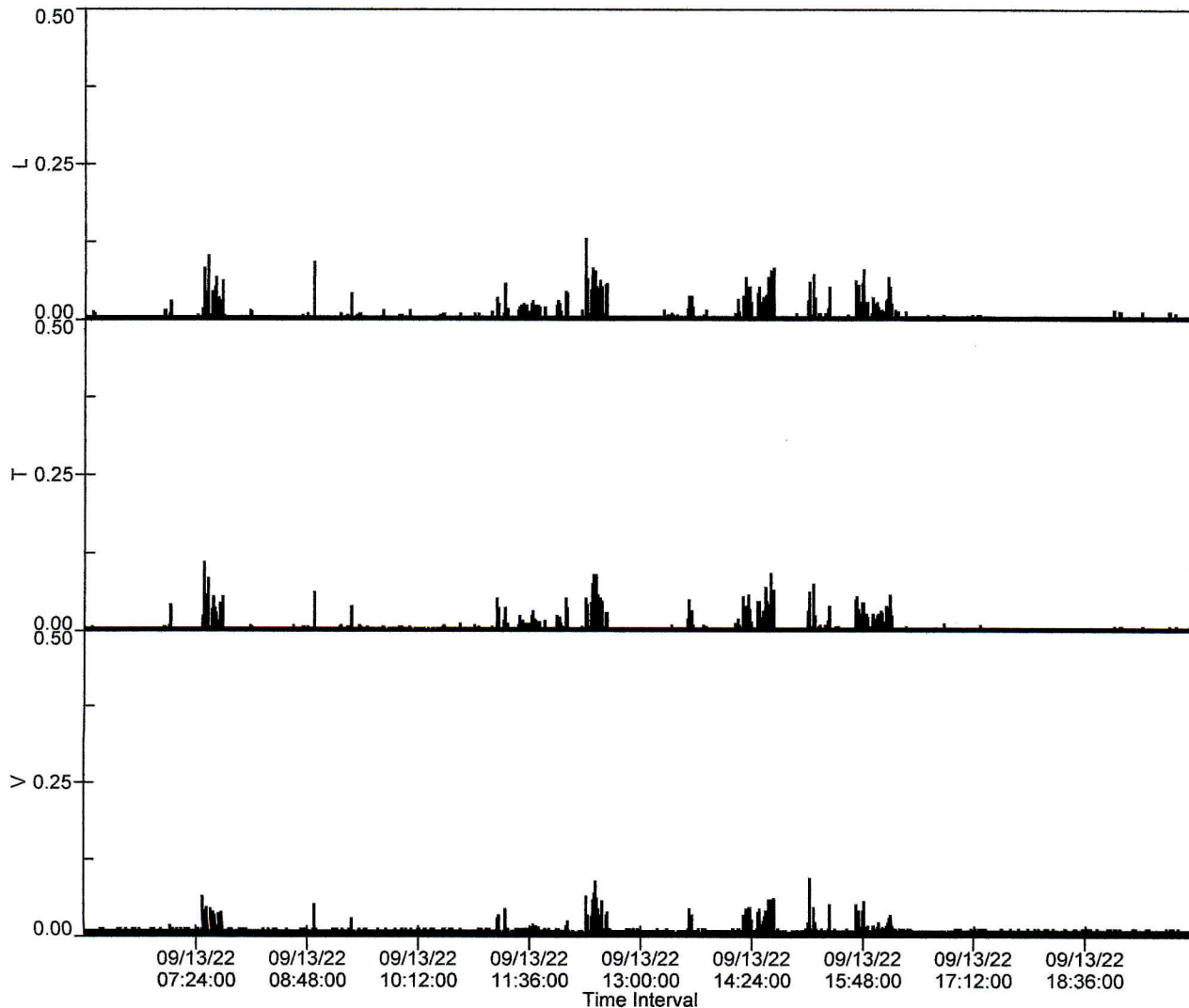
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 114

Record Max PPV: 0.130 in/s Record Max DB: 84 db



SN: 3733 v3.22
Date: 09/14/2022 **Time:** 06:01:00
Event: 115
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

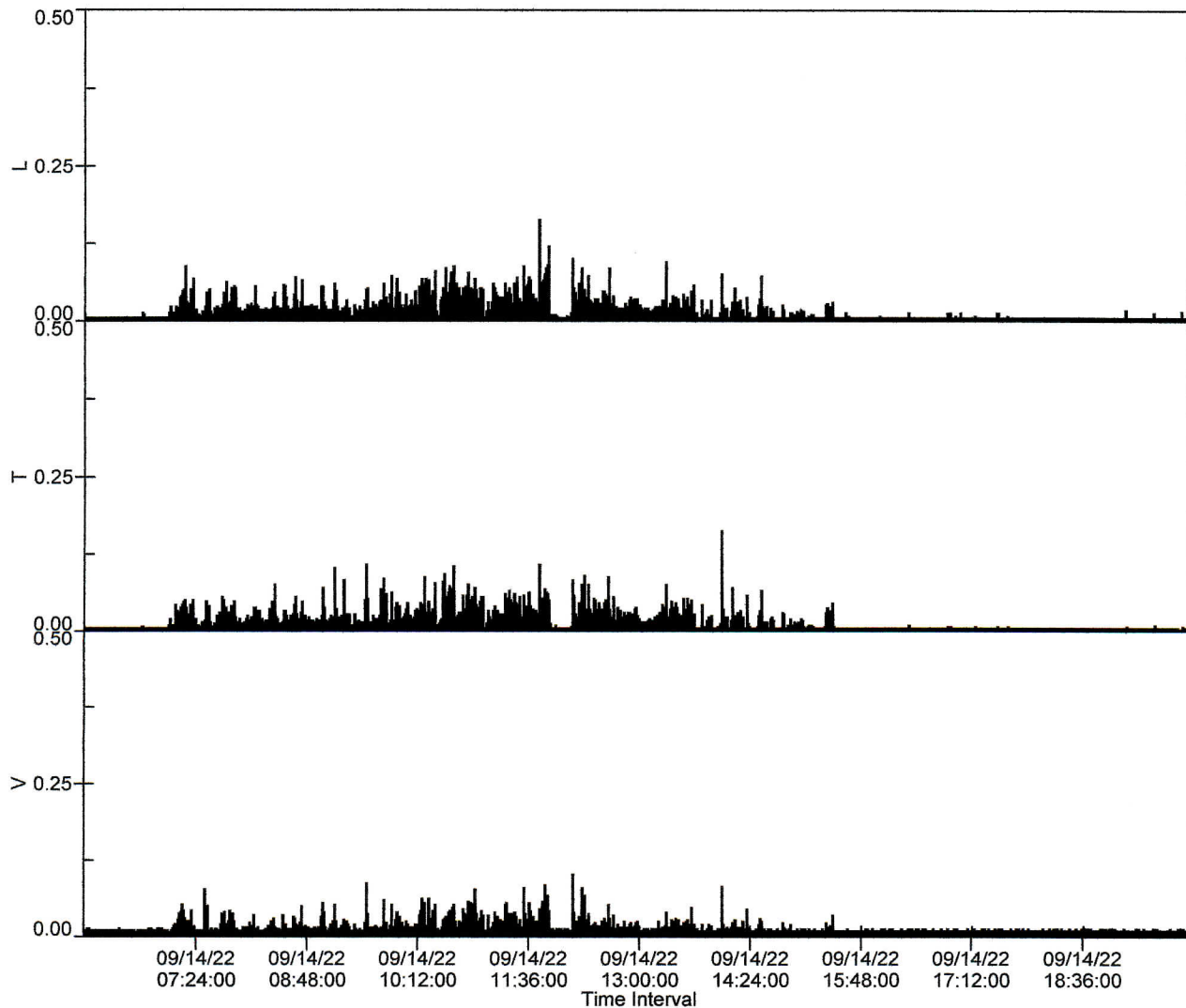
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.163 | 0.163 | 0.103 |
| FREQ (Hz) | 22.7 | 22.7 | 20.0 |
| Peak Air Pressure: | 86 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 115

Record Max PPV: 0.163 in/s Record Max DB: 86 db



SN: 3733 v3.22
Date: 09/15/2022 **Time:** 06:01:00
Event: 116
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|-------|-------|-------|
| PPV (in/s) | 0.118 | 0.208 | 0.138 |
| FREQ (Hz) | 11.6 | 21.7 | 25.0 |
| Peak Air Pressure: | 87 db | | |

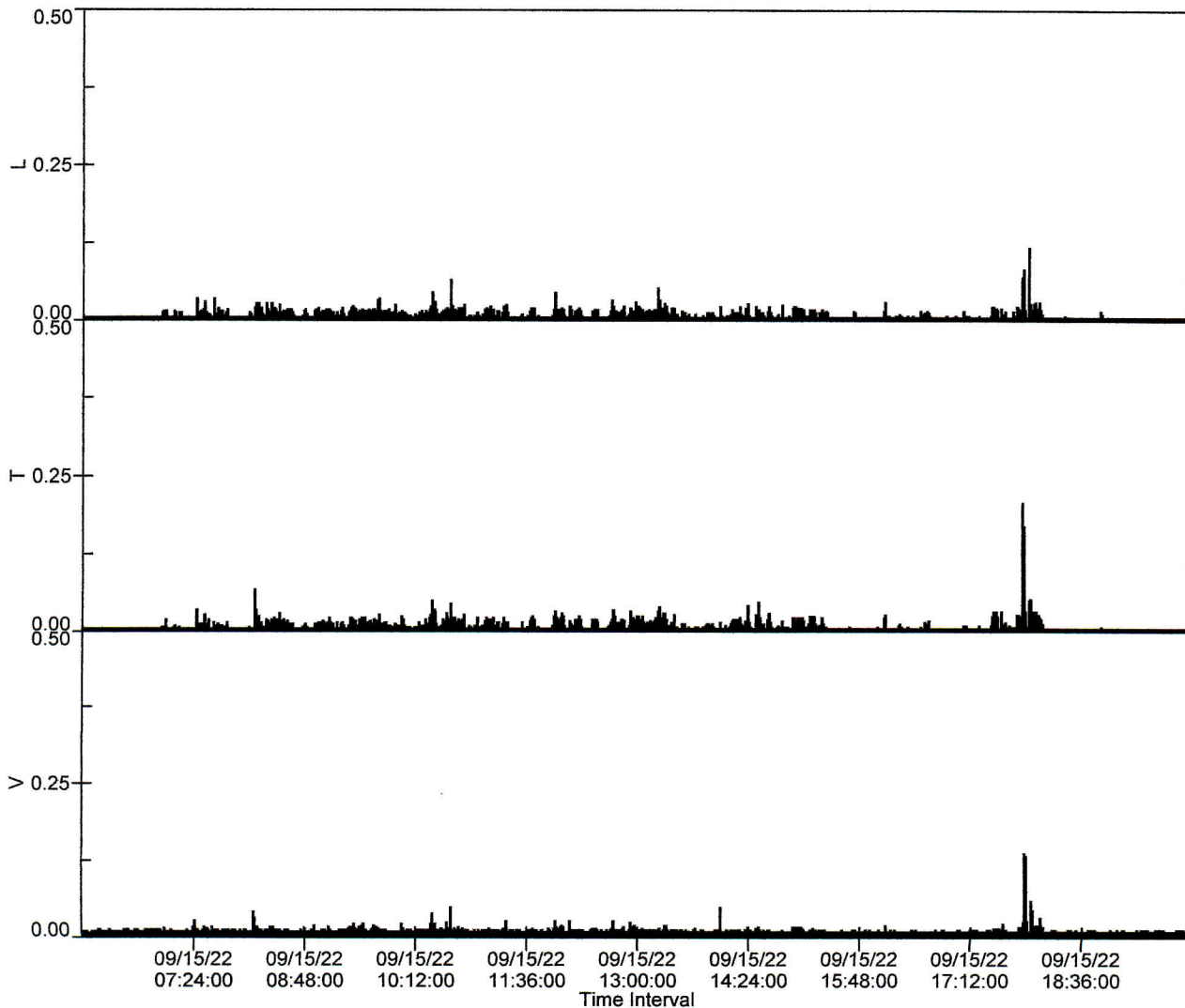
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 116

Record Max PPV: 0.208 in/s Record Max DB: 87 db



SN: 3733 v3.22
Date: 09/16/2022 **Time:** 06:01:00
Event: 117
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|-------|-------|-------|
| PPV (in/s) | 0.120 | 0.123 | 0.103 |
| FREQ (Hz) | 23.8 | 20.8 | 31.3 |
| Peak Air Pressure: | 89 db | | |

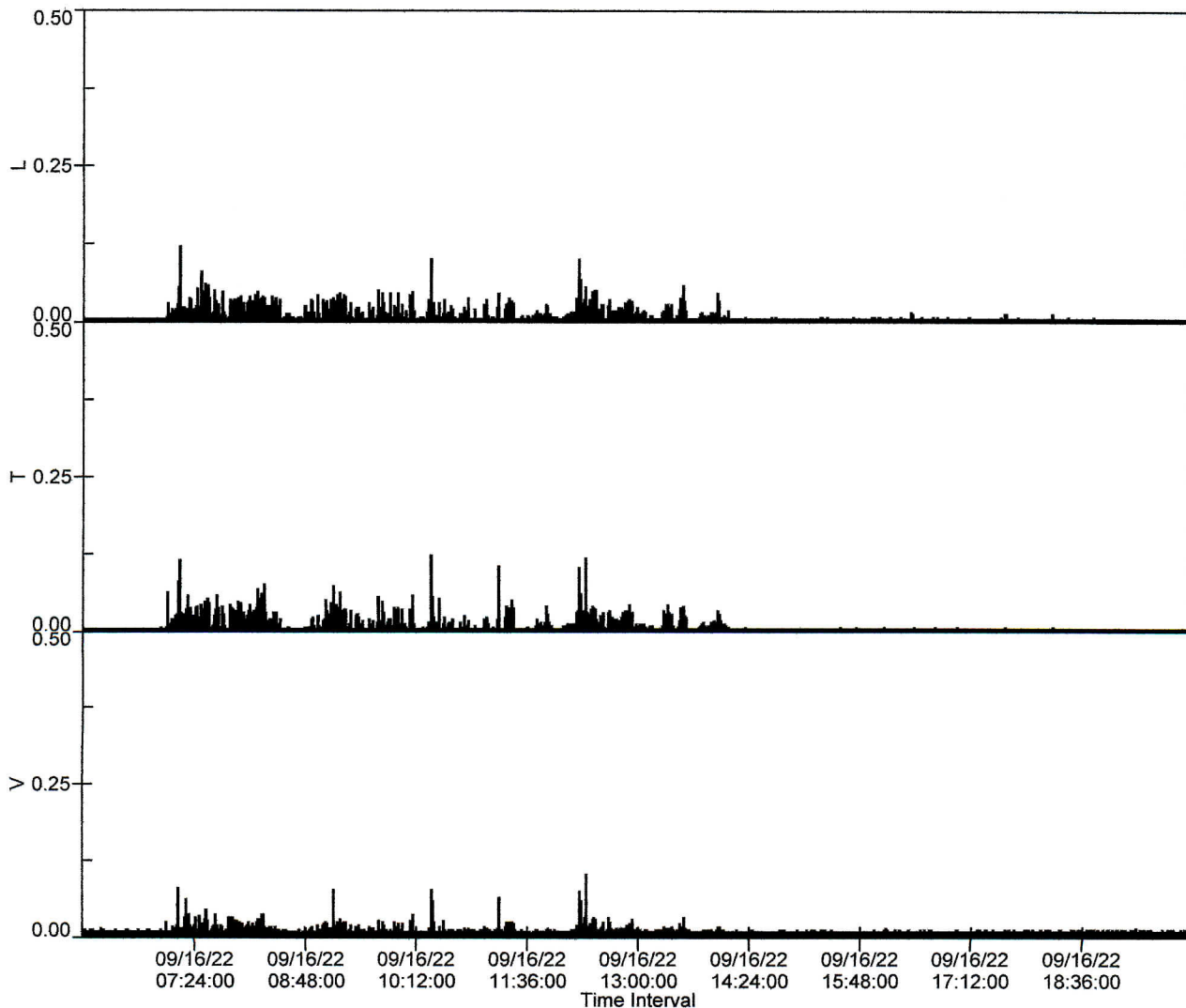
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 117

Record Max PPV: 0.123 in/s Record Max DB: 89 db



SN: 3733 v3.22
Date: 09/17/2022 **Time:** 06:01:00
Event: 118
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

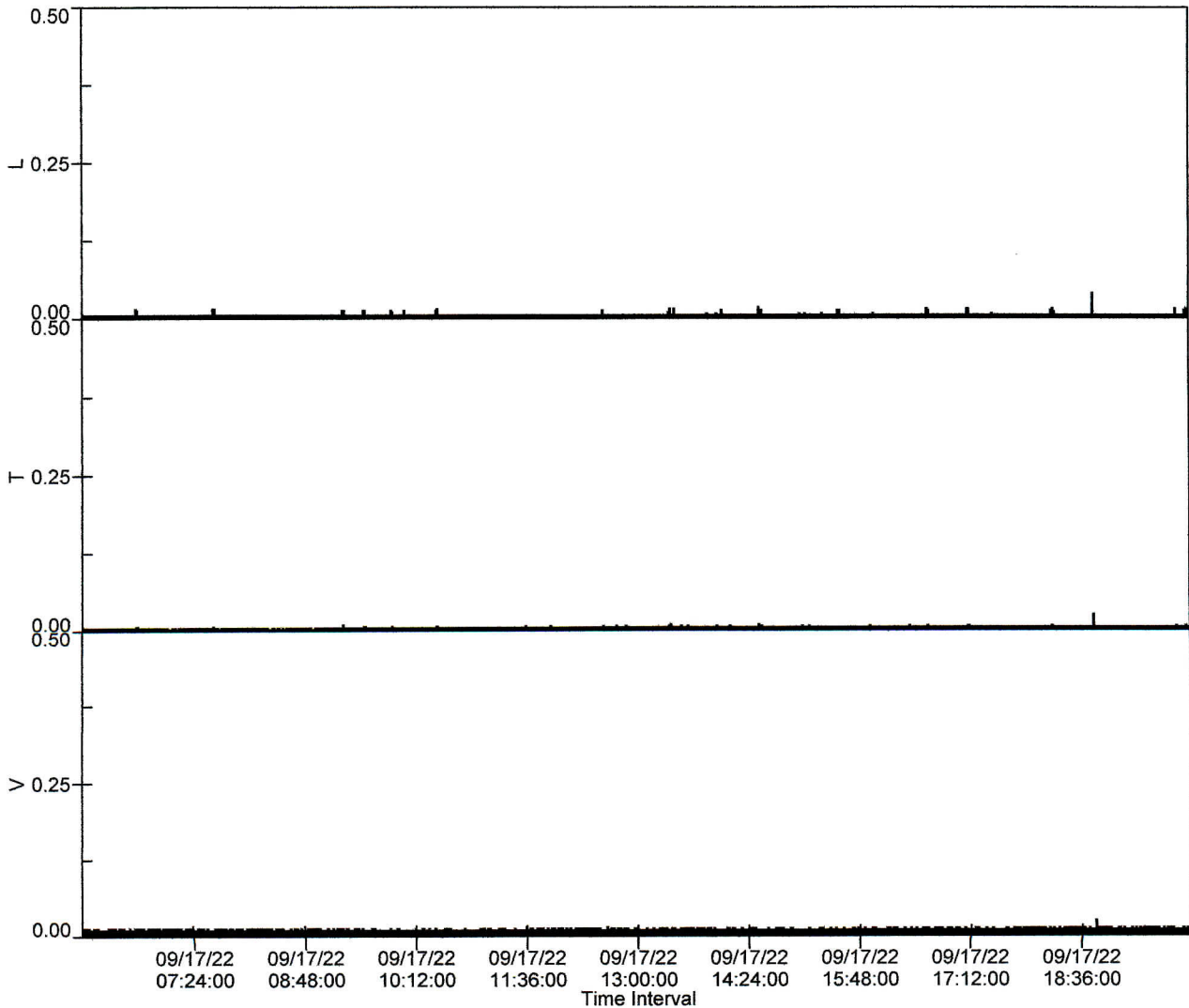
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.040 | 0.025 | 0.025 |
| FREQ (Hz) | 250.0 | 250.0 | 250.0 |
| Peak Air Pressure: | 106 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 118

Record Max PPV: 0.040 in/s Record Max DB: 106 db



SN: 3733 v3.22
Date: 09/18/2022 **Time:** 06:01:00
Event: 119
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

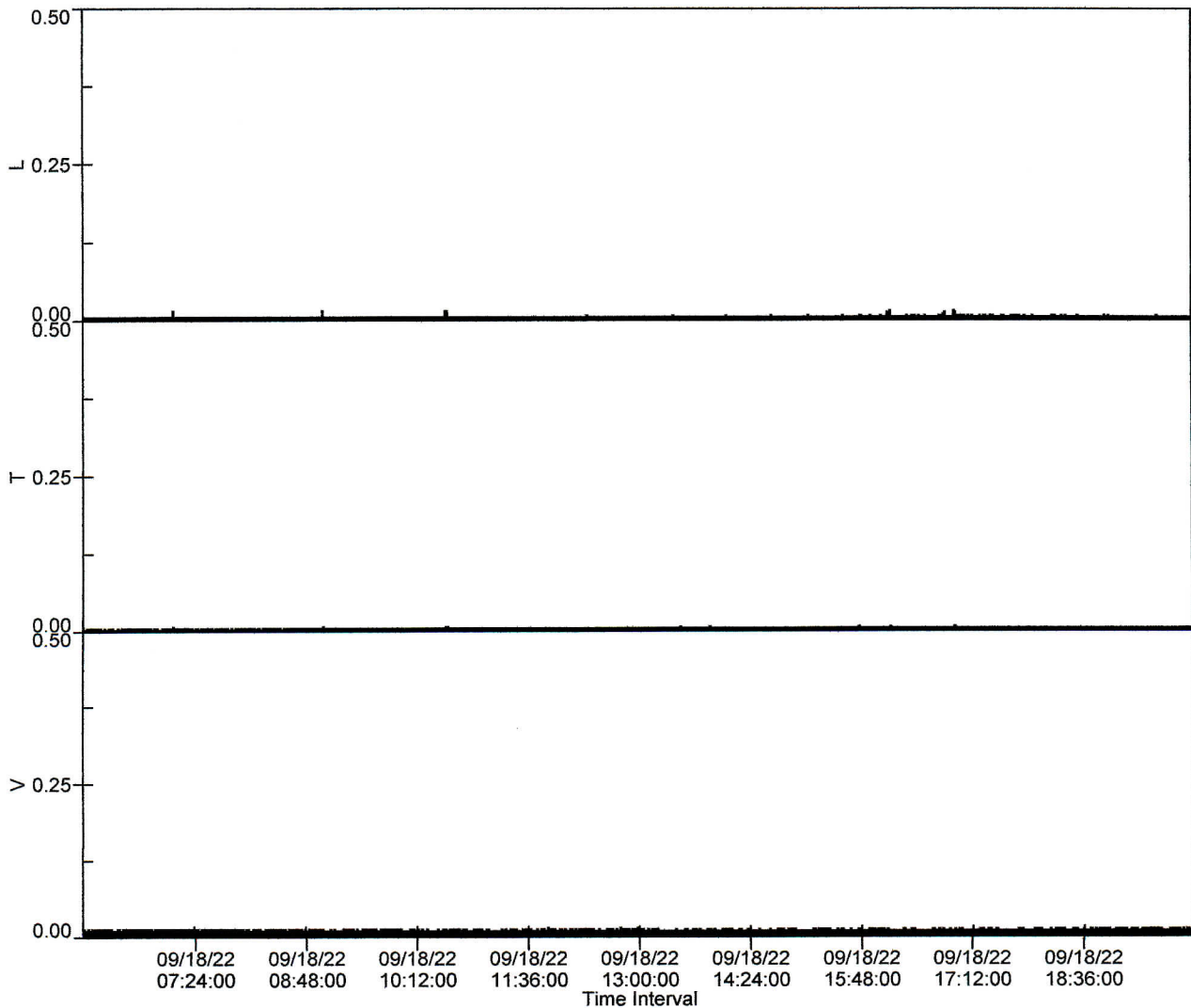
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.015 | 0.008 | 0.015 |
| FREQ (Hz) | 500.0 | 3.2 | 166.7 |
| Peak Air Pressure: | 90 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 119

Record Max PPV: 0.015 in/s Record Max DB: 90 db



SN: 3733 v3.22
Date: 09/19/2022 **Time:** 06:01:00
Event: 120
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

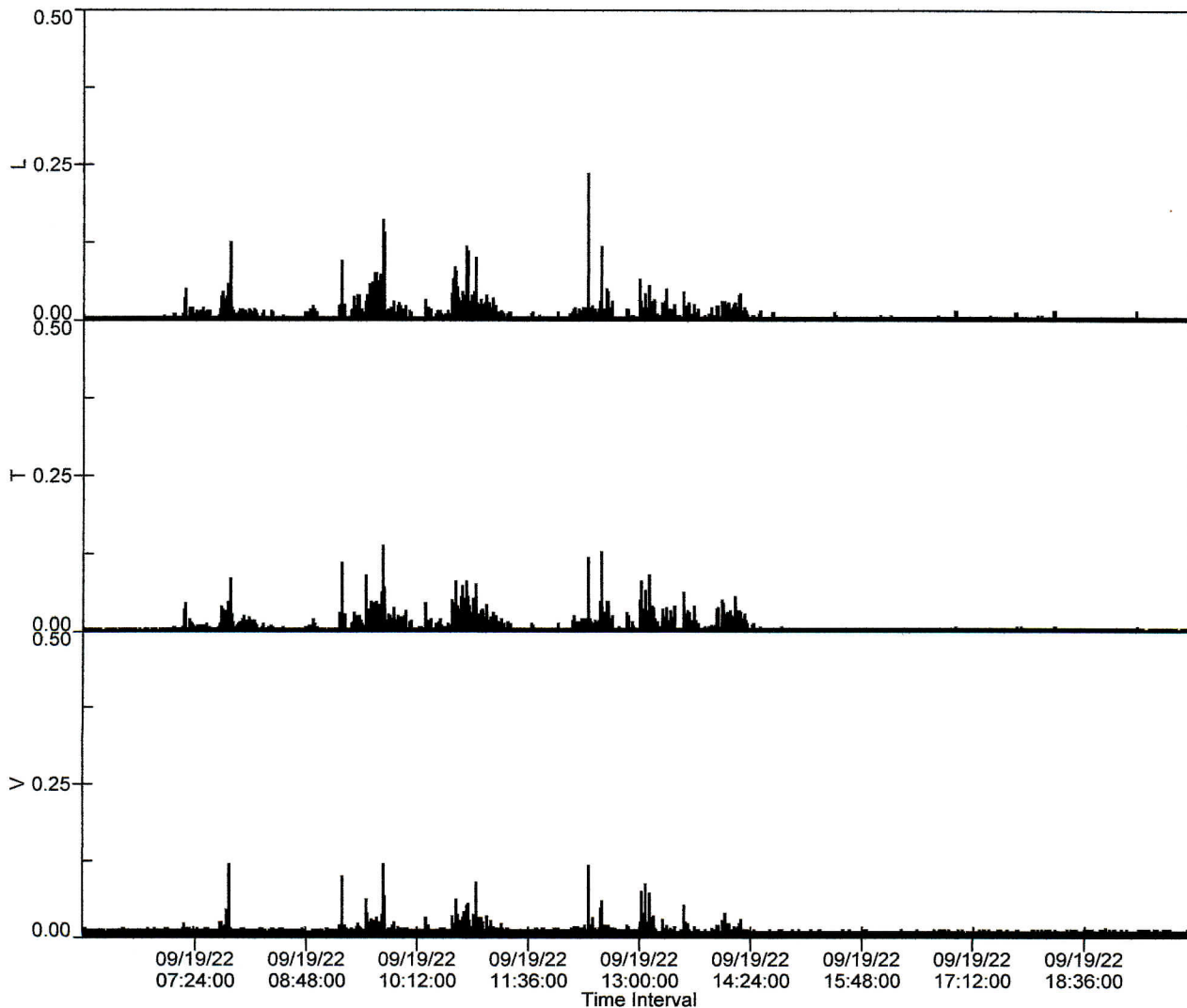
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.235 | 0.138 | 0.120 |
| FREQ (Hz) | 12.2 | 13.9 | 12.2 |
| Peak Air Pressure: | 89 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 120

Record Max PPV: 0.235 in/s Record Max DB: 89 db



SN: 3733 v3.22
Date: 09/20/2022 **Time:** 06:01:00
Event: 121
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|-------|-------|-------|
| PPV (in/s) | 0.175 | 0.070 | 0.140 |
| FREQ (Hz) | 50.0 | 16.7 | 41.7 |
| Peak Air Pressure: | 86 db | | |

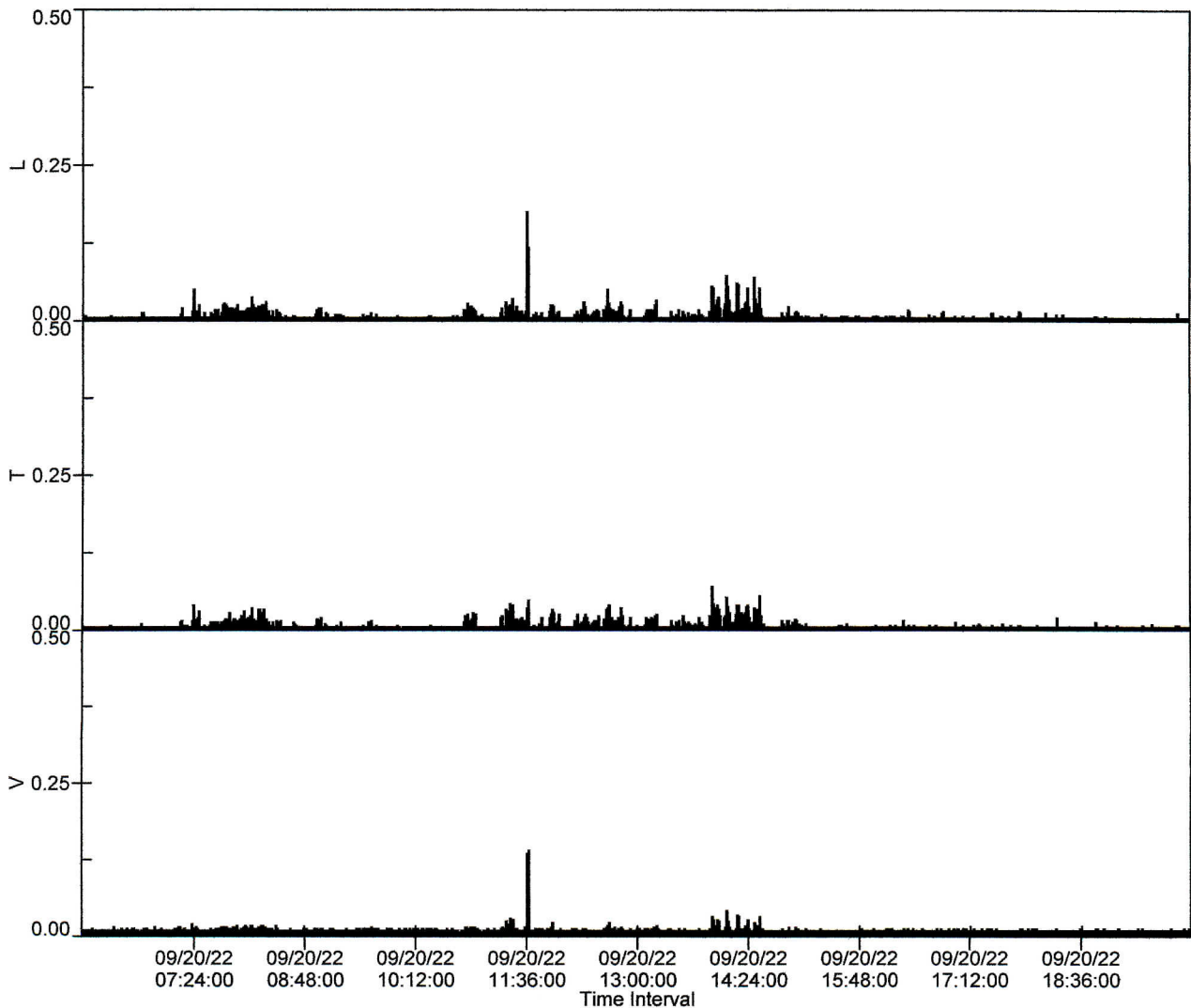
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 121

Record Max PPV: 0.175 in/s Record Max DB: 86 db



SN: 3733 v3.22
Date: 09/21/2022 **Time:** 06:01:00
Event: 122
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

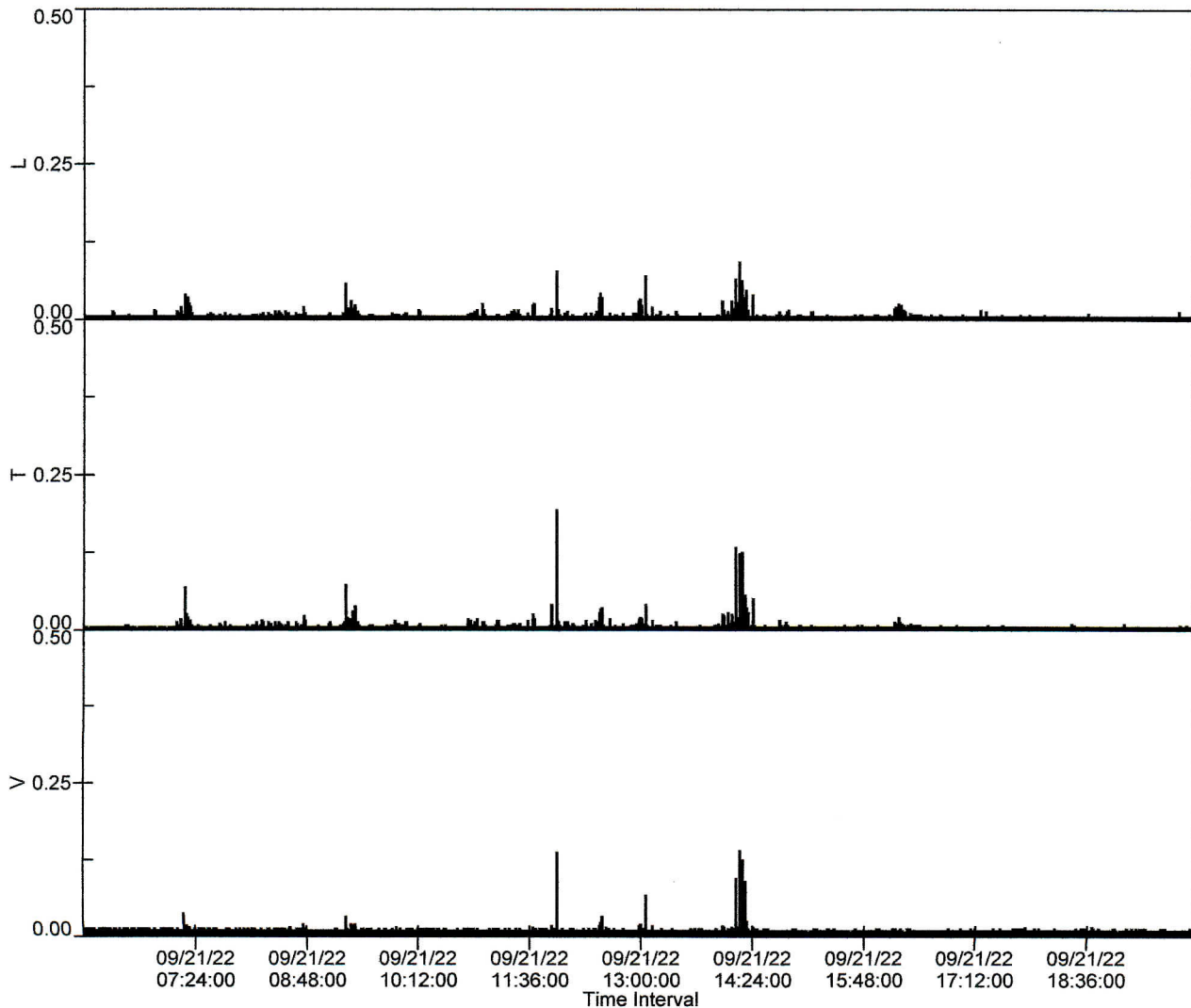
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.093 | 0.193 | 0.140 |
| FREQ (Hz) | 26.3 | 25.0 | 23.8 |
| Peak Air Pressure: | 95 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 122

Record Max PPV: 0.193 in/s Record Max DB: 95 db



SN: 3733 v3.22
Date: 09/22/2022 **Time:** 06:01:00
Event: 123
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

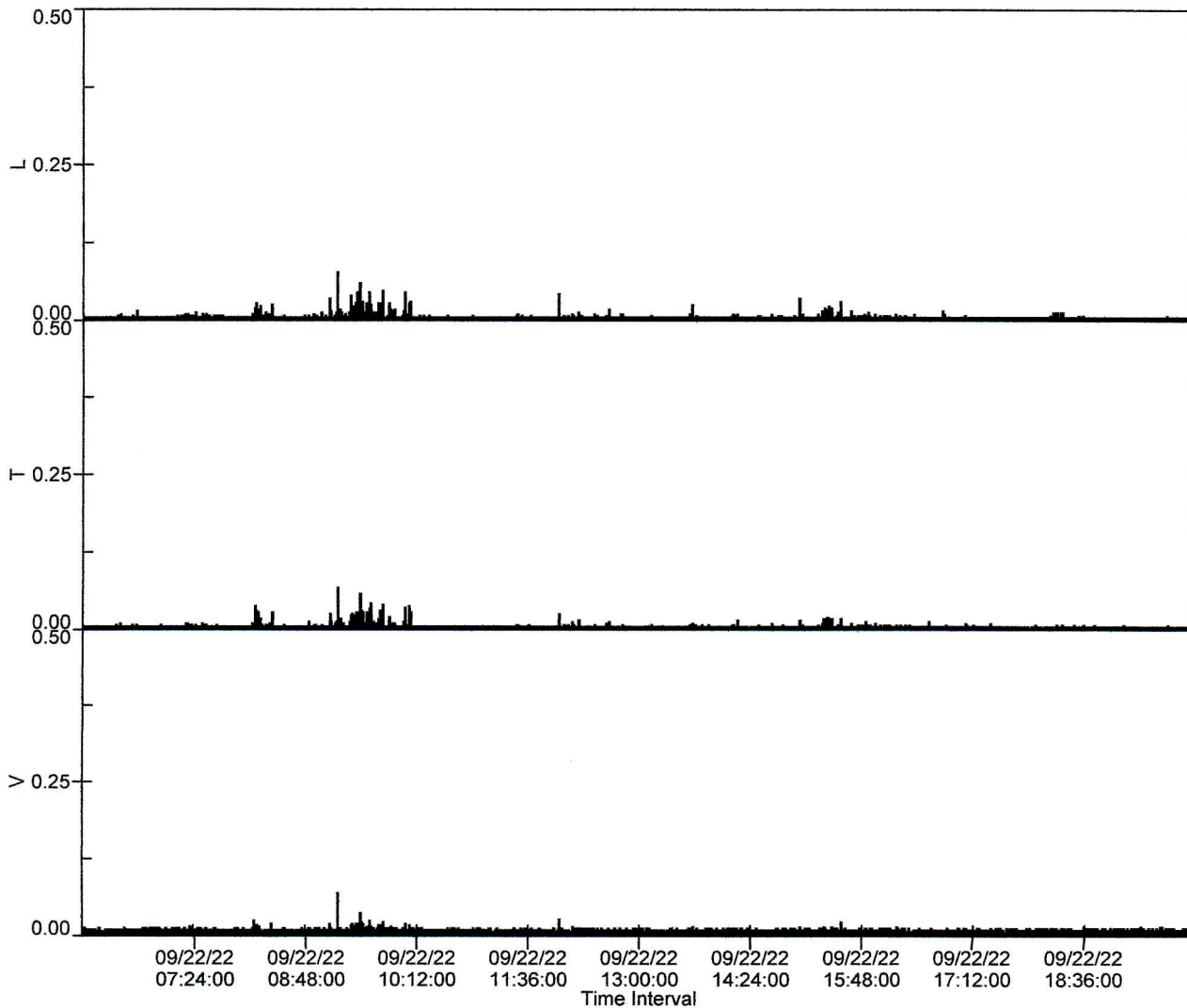
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.078 | 0.068 | 0.070 |
| FREQ (Hz) | 20.8 | 25.0 | 22.7 |
| Peak Air Pressure: | 104 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 123

Record Max PPV: 0.078 in/s Record Max DB: 104 db



SN: 3733 v3.22
Date: 09/23/2022 **Time:** 06:01:00
Event: 124
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|--------|-------|-------|
| PPV (in/s) | 0.173 | 0.090 | 0.143 |
| FREQ (Hz) | 20.8 | 33.3 | 23.8 |
| Peak Air Pressure: | 103 db | | |

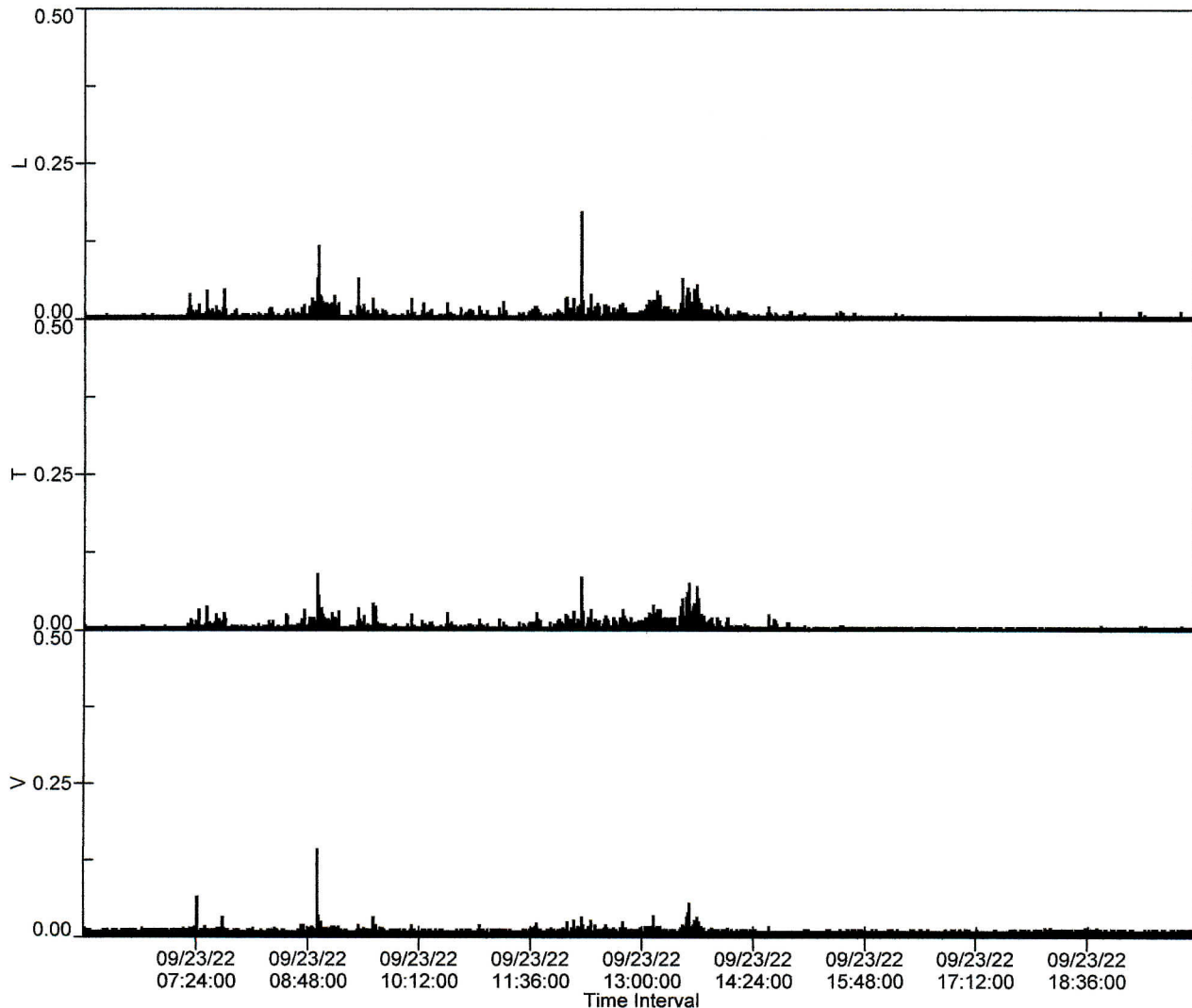
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 124

Record Max PPV: 0.173 in/s Record Max DB: 103 db



SN: 3733 v3.22
Date: 09/24/2022 **Time:** 06:01:00
Event: 125
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

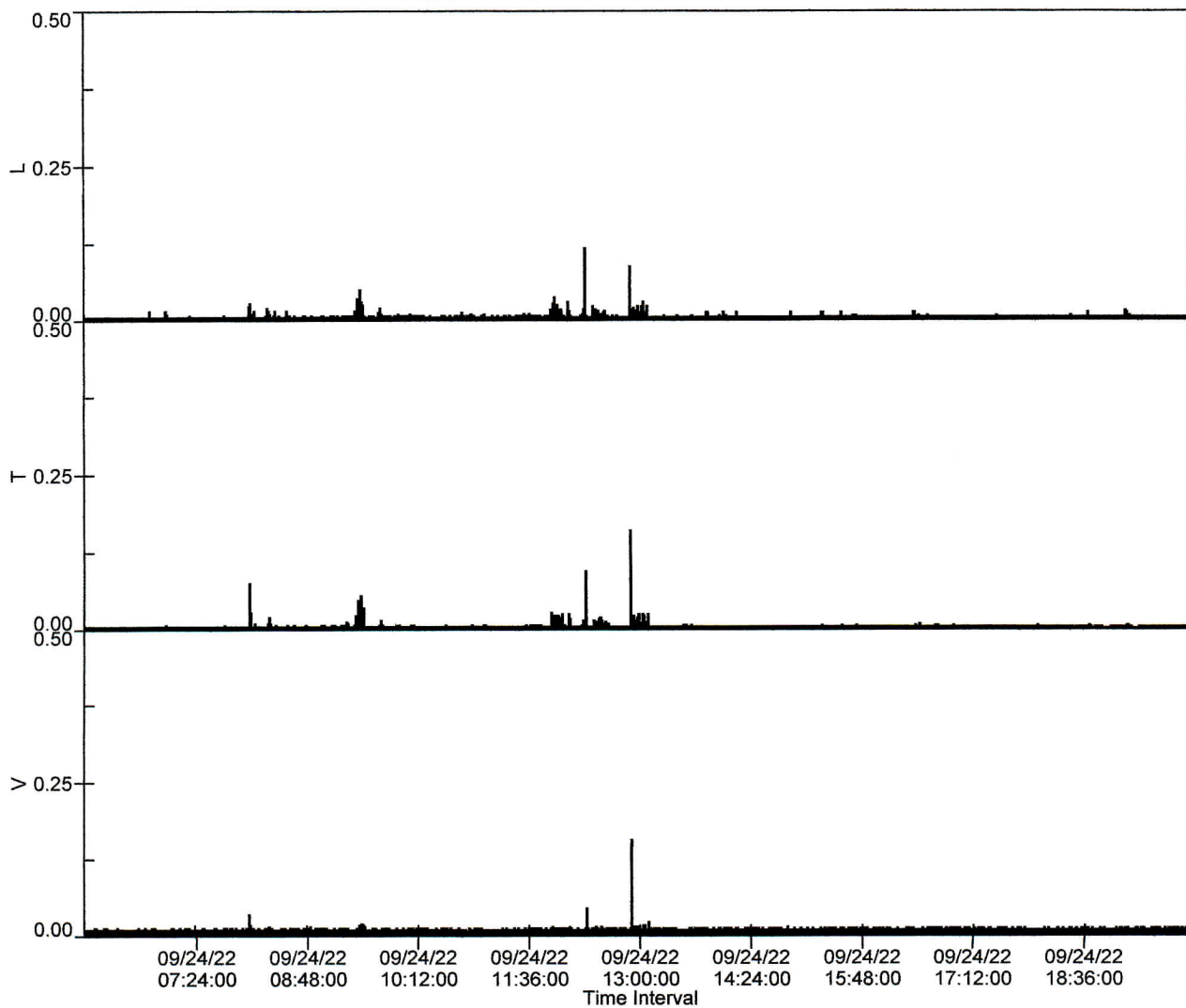
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.118 | 0.160 | 0.158 |
| FREQ (Hz) | 21.7 | 23.8 | 23.8 |
| Peak Air Pressure: | 87 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 125

Record Max PPV: 0.160 in/s Record Max DB: 87 db



SN: 3733 v3.22
Date: 09/25/2022 **Time:** 06:01:00
Event: 126
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

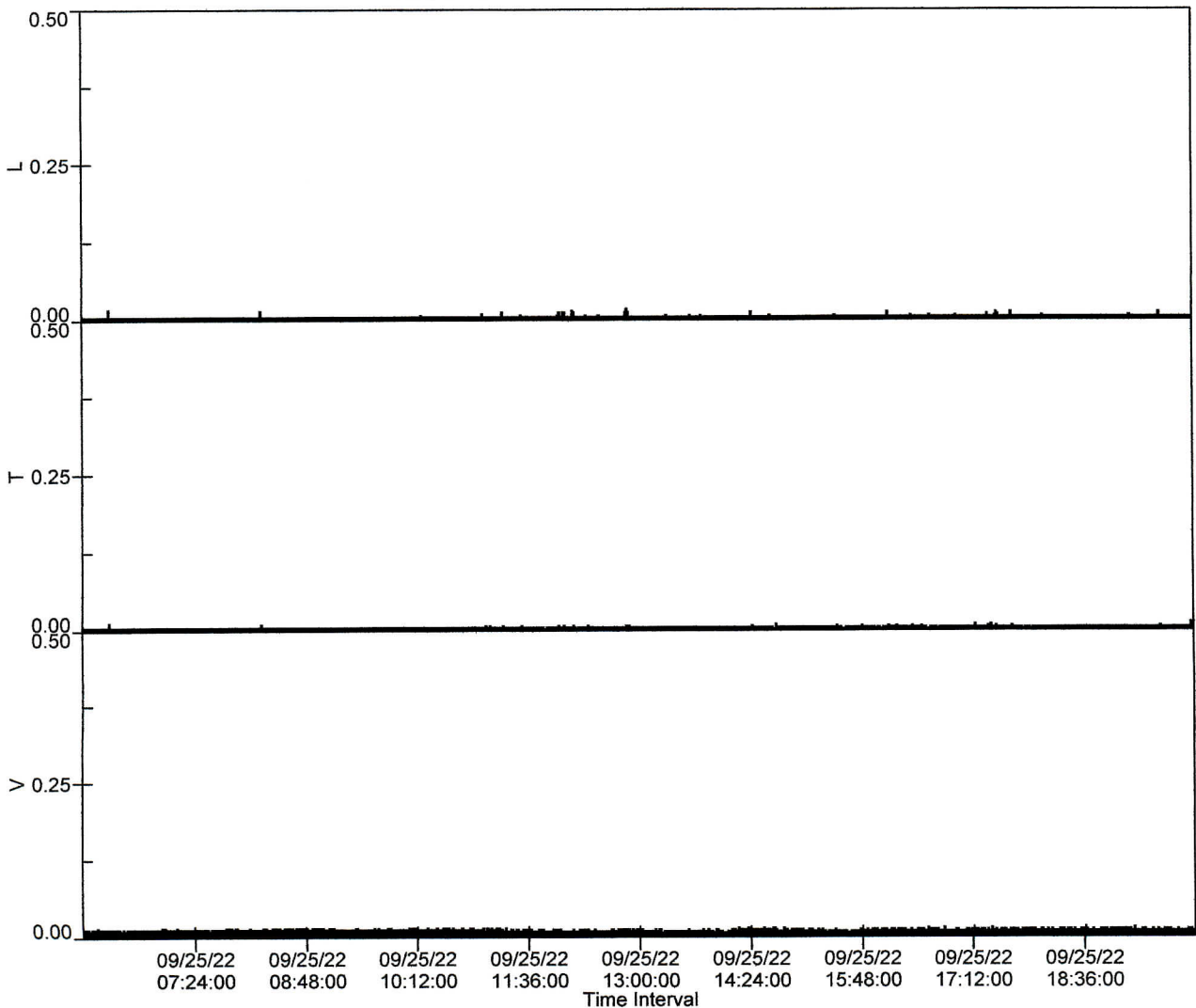
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.018 | 0.013 | 0.015 |
| FREQ (Hz) | 100.0 | 6.3 | 71.4 |
| Peak Air Pressure: | 89 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 126

Record Max PPV: 0.018 in/s Record Max DB: 89 db



SN: 3733 v3.22
Date: 09/26/2022 **Time:** 06:01:00
Event: 127
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|-------|-------|-------|
| PPV (in/s) | 0.043 | 0.043 | 0.033 |
| FREQ (Hz) | 20.8 | 11.9 | 7.8 |
| Peak Air Pressure: | 86 db | | |

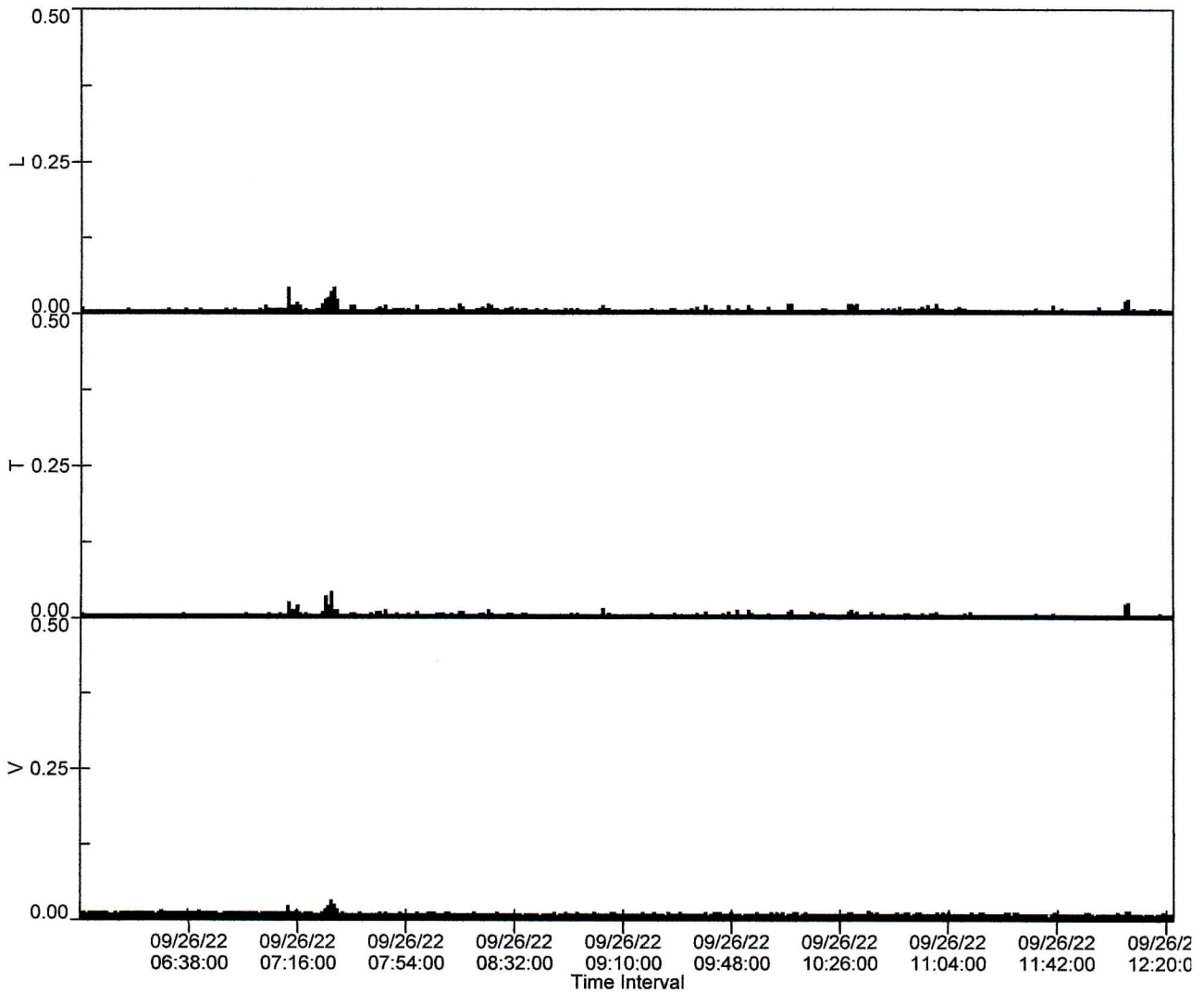
Recording Time: 382 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 127

Record Max PPV: 0.043 in/s Record Max DB: 86 db



SN: 3647 v2.75
Date: 09/14/2022 **Time:** 06:01:00
Event: 115
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

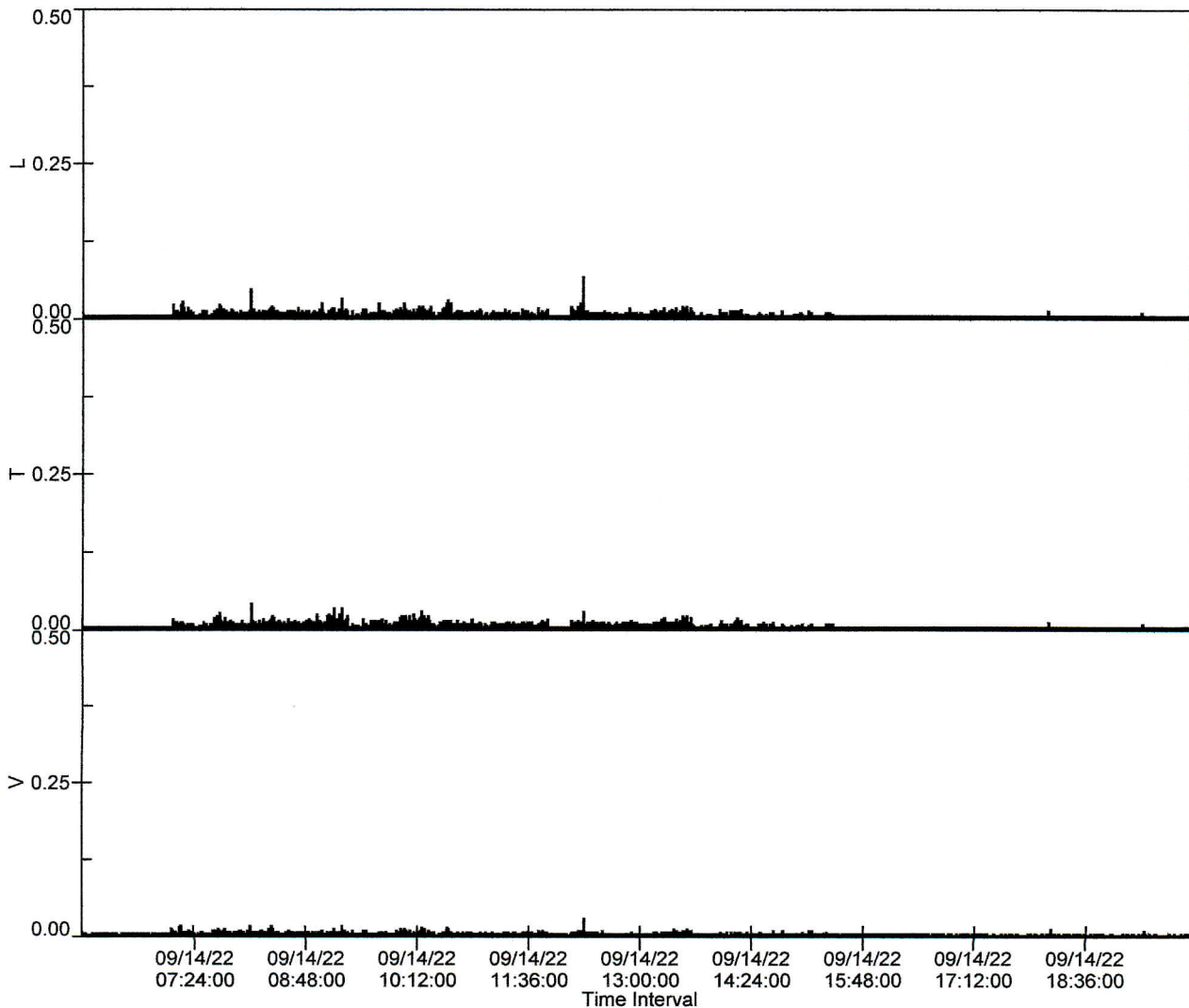
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.068 | 0.043 | 0.030 |
| FREQ (Hz) | 17.2 | 12.8 | 20.8 |
| Peak Air Pressure: | 95 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 115

Record Max PPV: 0.068 in/s Record Max DB: 95 db



SN: 3647 v2.75
Date: 09/15/2022 **Time:** 06:01:00
Event: 116
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|--------|-------|-------|
| PPV (in/s) | 0.023 | 0.023 | 0.020 |
| FREQ (Hz) | 9.1 | 9.4 | 250.0 |
| Peak Air Pressure: | 103 db | | |

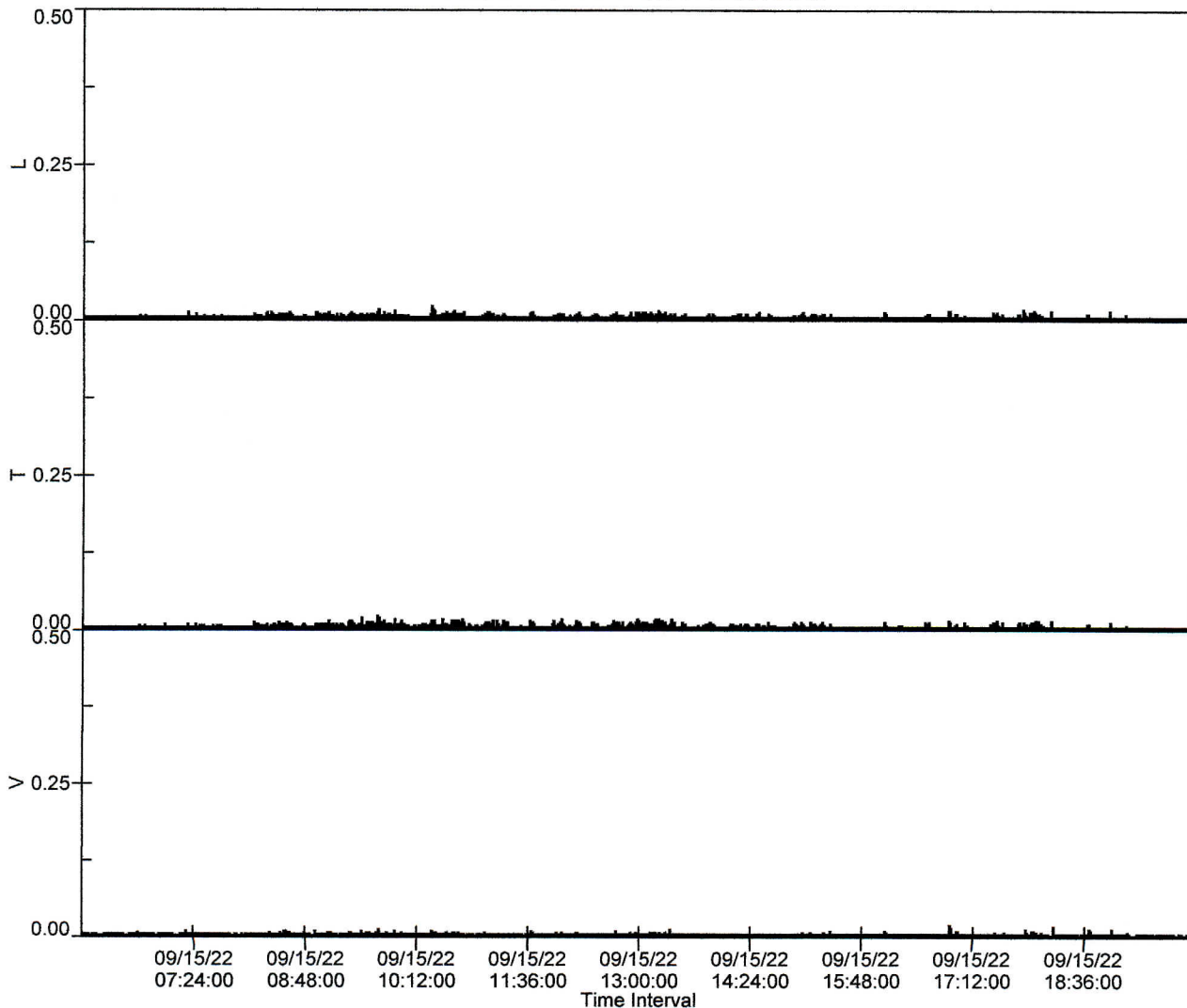
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 116

Record Max PPV: 0.023 in/s Record Max DB: 103 db



SN: 3647 v2.75
Date: 09/16/2022 **Time:** 06:01:00
Event: 117
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

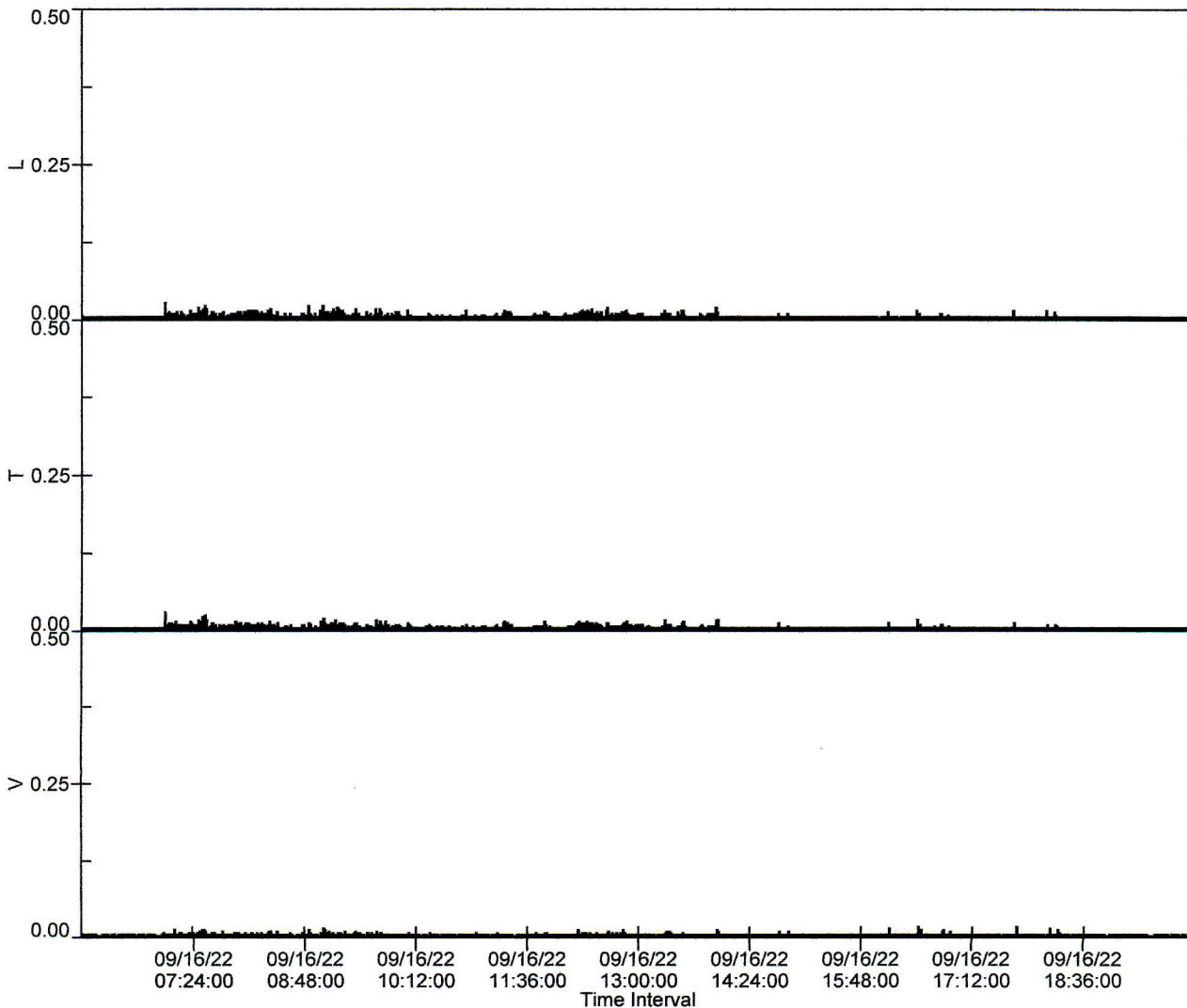
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.028 | 0.030 | 0.018 |
| FREQ (Hz) | 9.4 | 8.3 | 250.0 |
| Peak Air Pressure: | 104 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 117

Record Max PPV: 0.030 in/s Record Max DB: 104 db



SN: 3647 v2.75
Date: 09/17/2022 **Time:** 06:01:00
Event: 118
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|--------|-------|-------|
| PPV (in/s) | 0.015 | 0.015 | 0.018 |
| FREQ (Hz) | 71.4 | 166.7 | 166.7 |
| Peak Air Pressure: | 102 db | | |

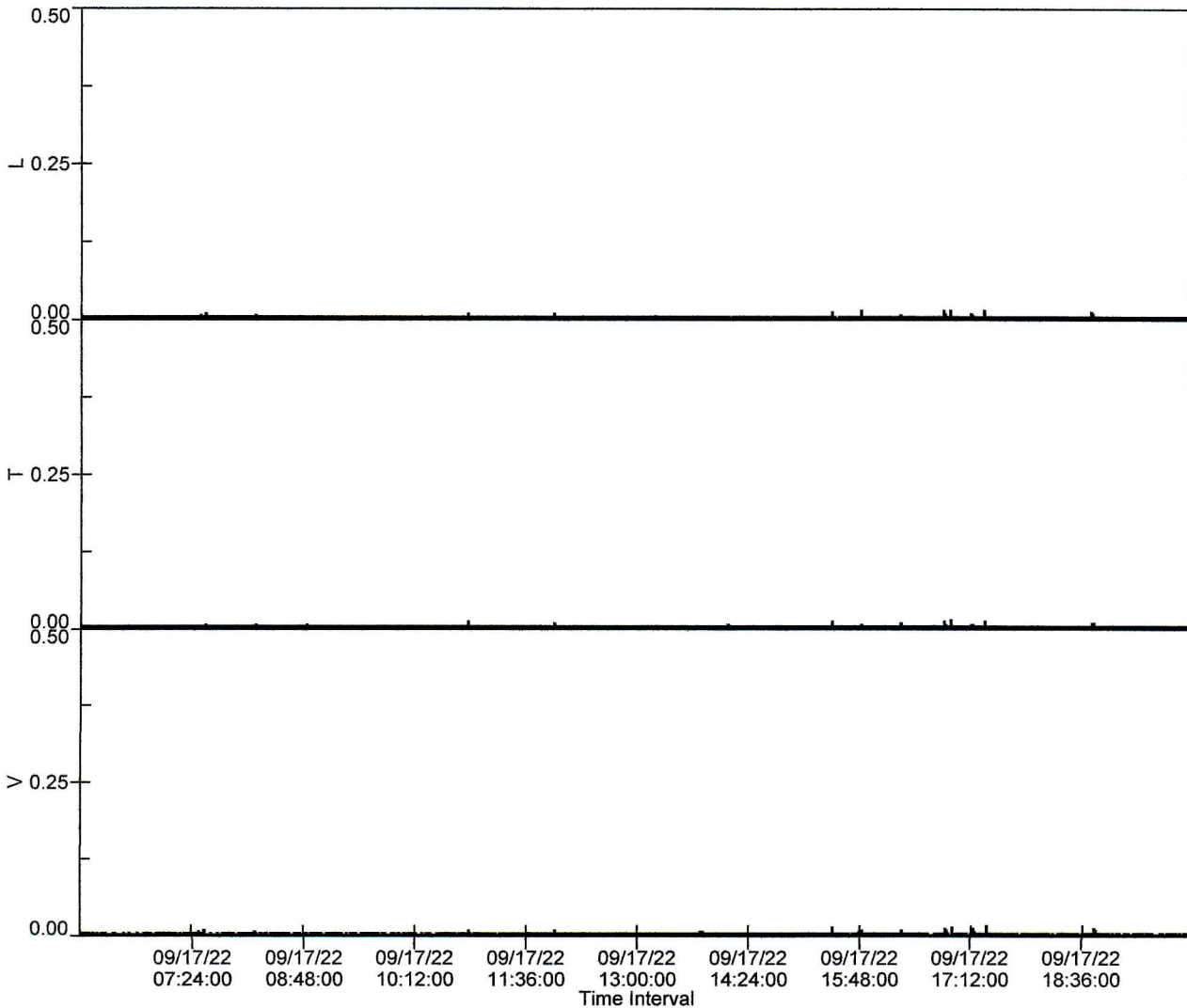
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 118

Record Max PPV: 0.018 in/s Record Max DB: 102 db



SN: 3647 v2.75
Date: 09/18/2022 **Time:** 06:01:00
Event: 119
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

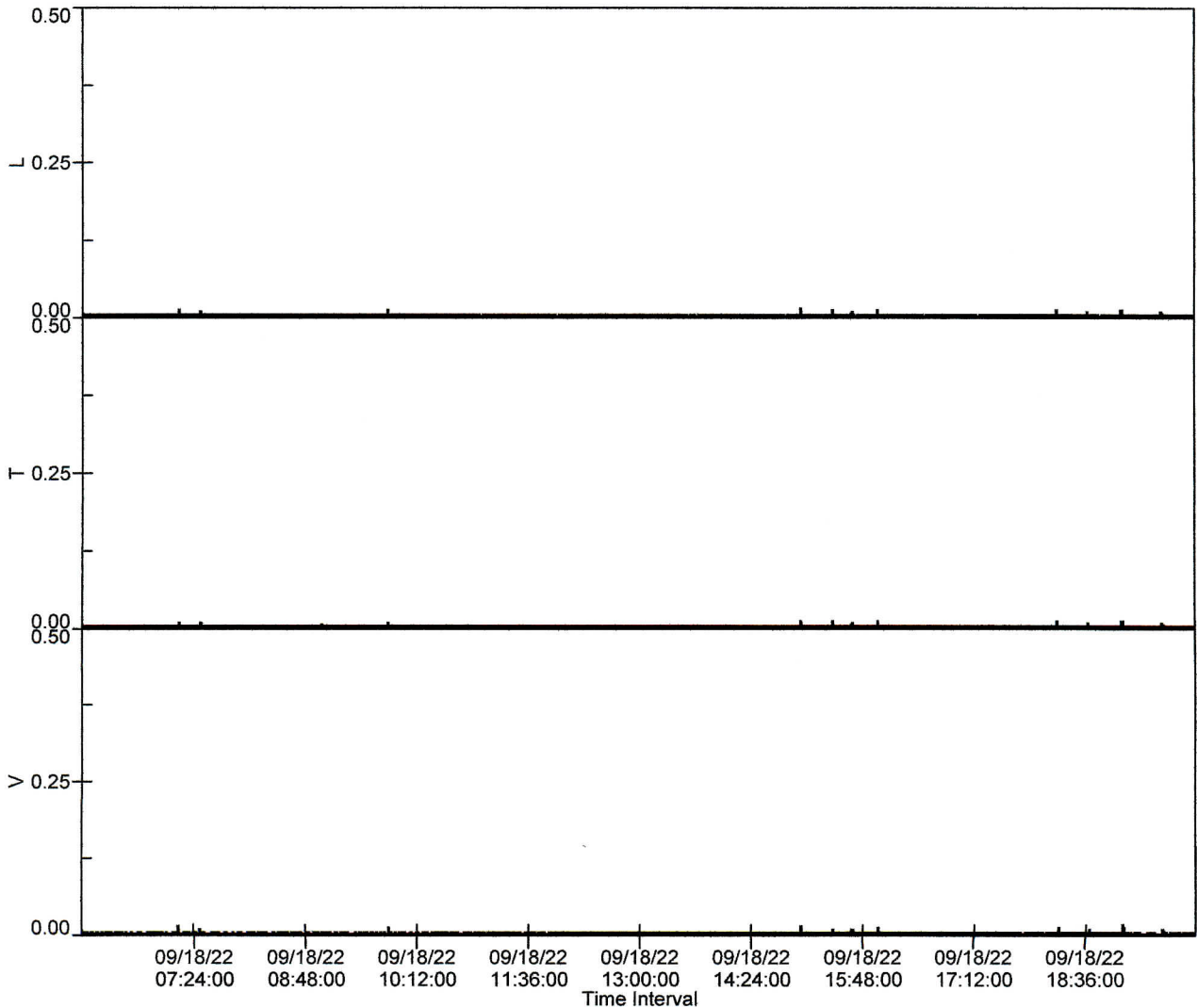
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.015 | 0.013 | 0.018 |
| FREQ (Hz) | 250.0 | 250.0 | 250.0 |
| Peak Air Pressure: | 101 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 119

Record Max PPV: 0.018 in/s Record Max DB: 101 db



SN: 3647 v2.75
Date: 09/19/2022 **Time:** 06:01:00
Event: 120
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|--------|-------|-------|
| PPV (in/s) | 0.065 | 0.055 | 0.023 |
| FREQ (Hz) | 12.5 | 11.6 | 11.9 |
| Peak Air Pressure: | 103 db | | |

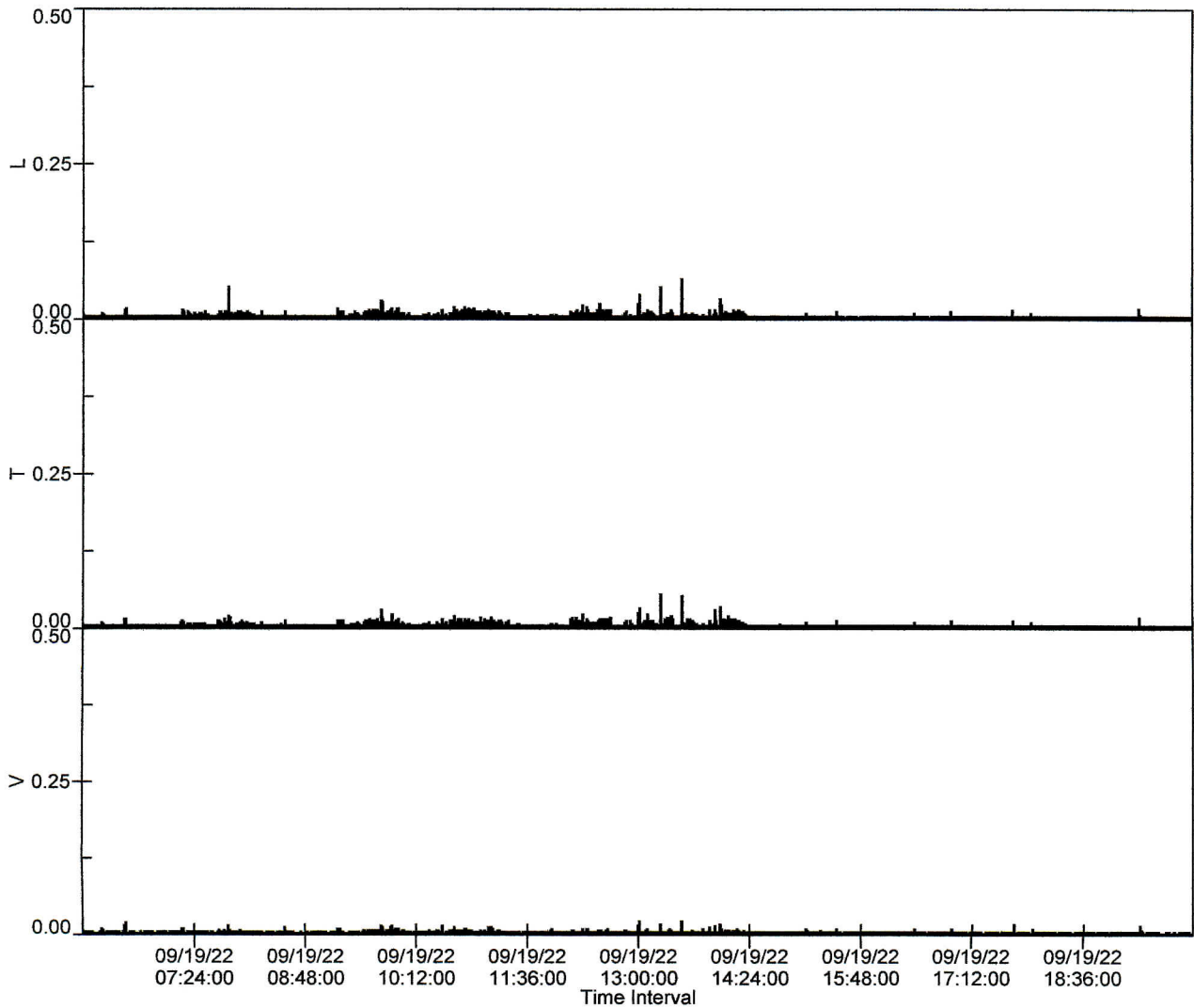
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 120

Record Max PPV: 0.065 in/s Record Max DB: 103 db



SN: 3647 v2.75
Date: 09/20/2022 **Time:** 06:01:00
Event: 121
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

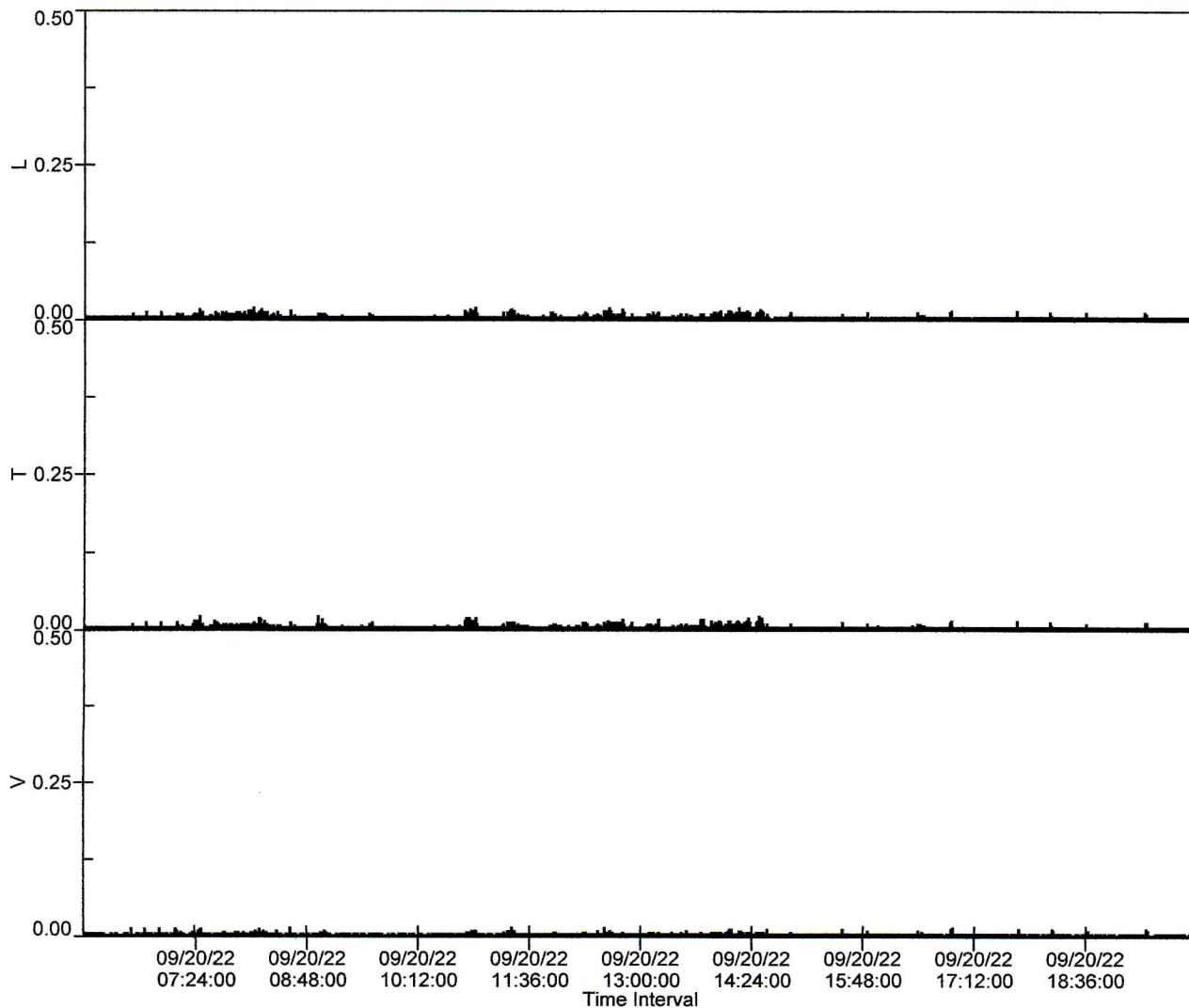
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.020 | 0.023 | 0.015 |
| FREQ (Hz) | 10.6 | 7.5 | 250.0 |
| Peak Air Pressure: | 103 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 121

Record Max PPV: 0.023 in/s Record Max DB: 103 db



SN: 3647 v2.75
Date: 09/21/2022 **Time:** 06:01:00
Event: 122
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

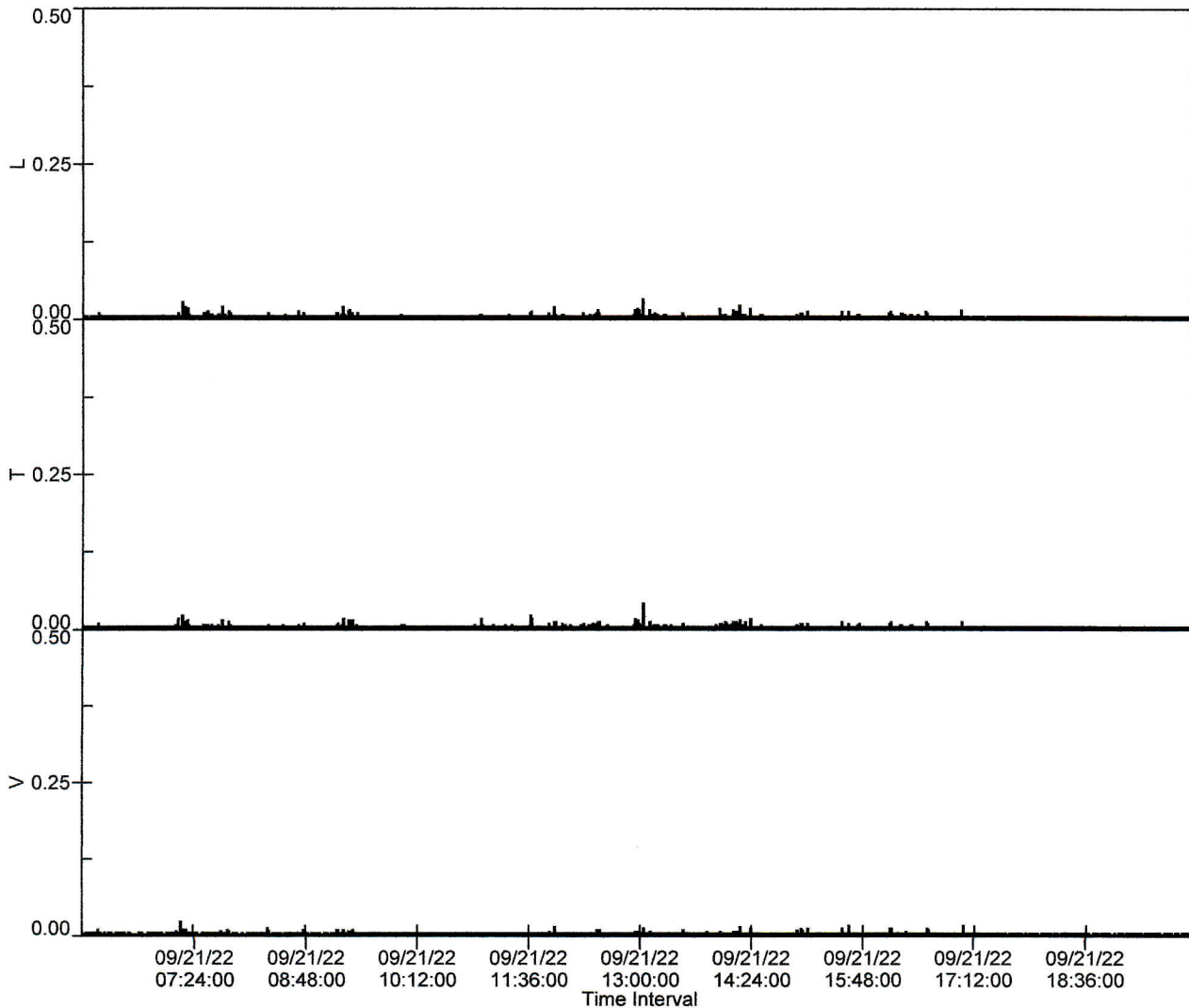
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.033 | 0.043 | 0.023 |
| FREQ (Hz) | 12.5 | 14.3 | 13.2 |
| Peak Air Pressure: | 101 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 122

Record Max PPV: 0.043 in/s Record Max DB: 101 db



SN: 3647 v2.75
Date: 09/22/2022 **Time:** 06:01:00
Event: 123
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

Continuous Monitor Recording

Summary Data

| | L | T | V |
|----------------------------------|-------|-------|-------|
| PPV (in/s) | 0.020 | 0.023 | 0.015 |
| FREQ (Hz) | 15.6 | 11.6 | 15.6 |
| Peak Air Pressure: 101 db | | | |

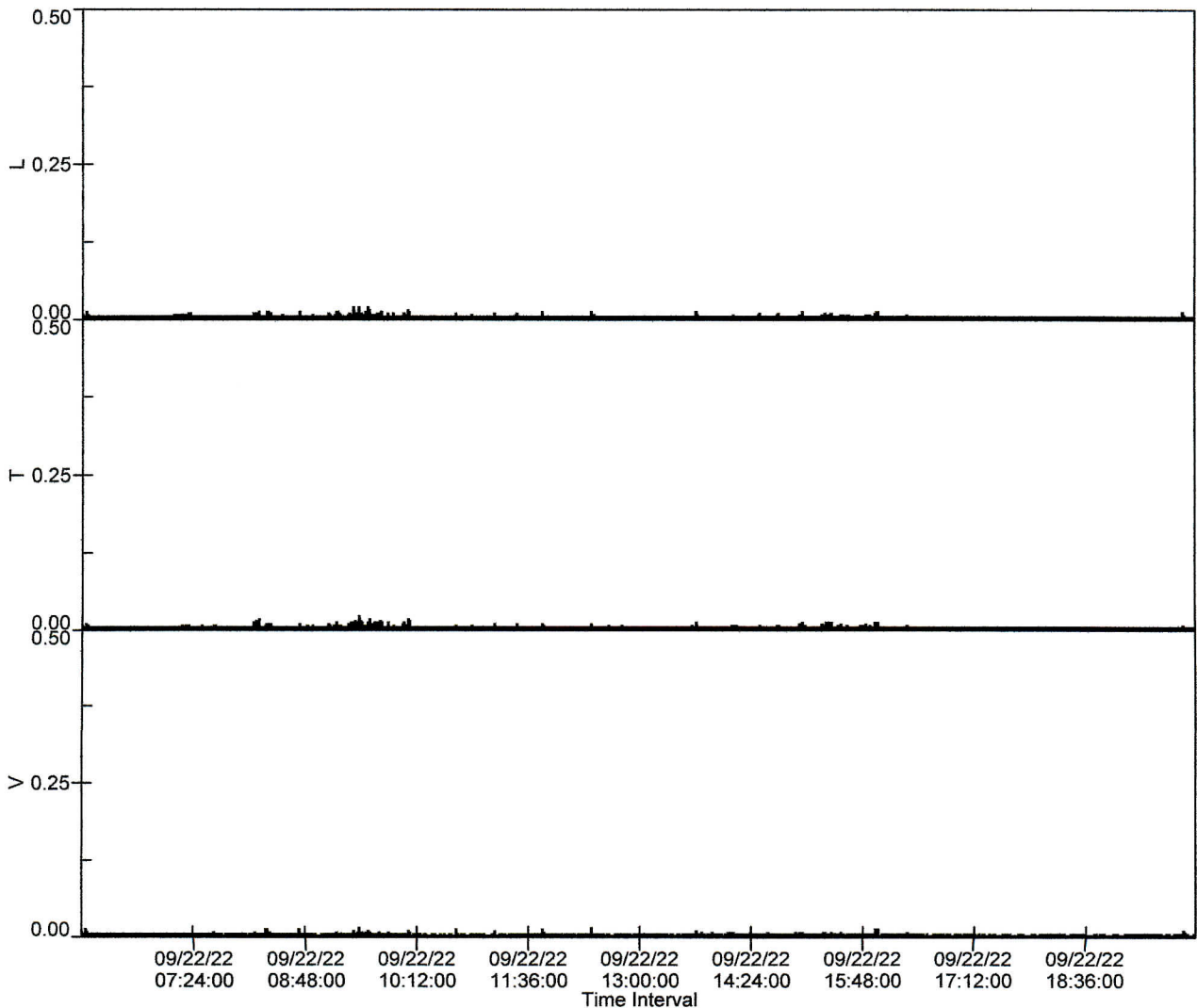
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 123

Record Max PPV: 0.023 in/s Record Max DB: 101 db



SN: 3647 v2.75
Date: 09/23/2022 **Time:** 06:01:00
Event: 124
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|---------------------------|--------|-------|-------|
| PPV (in/s) | 0.033 | 0.028 | 0.015 |
| FREQ (Hz) | 9.1 | 8.9 | 166.7 |
| Peak Air Pressure: | 101 db | | |

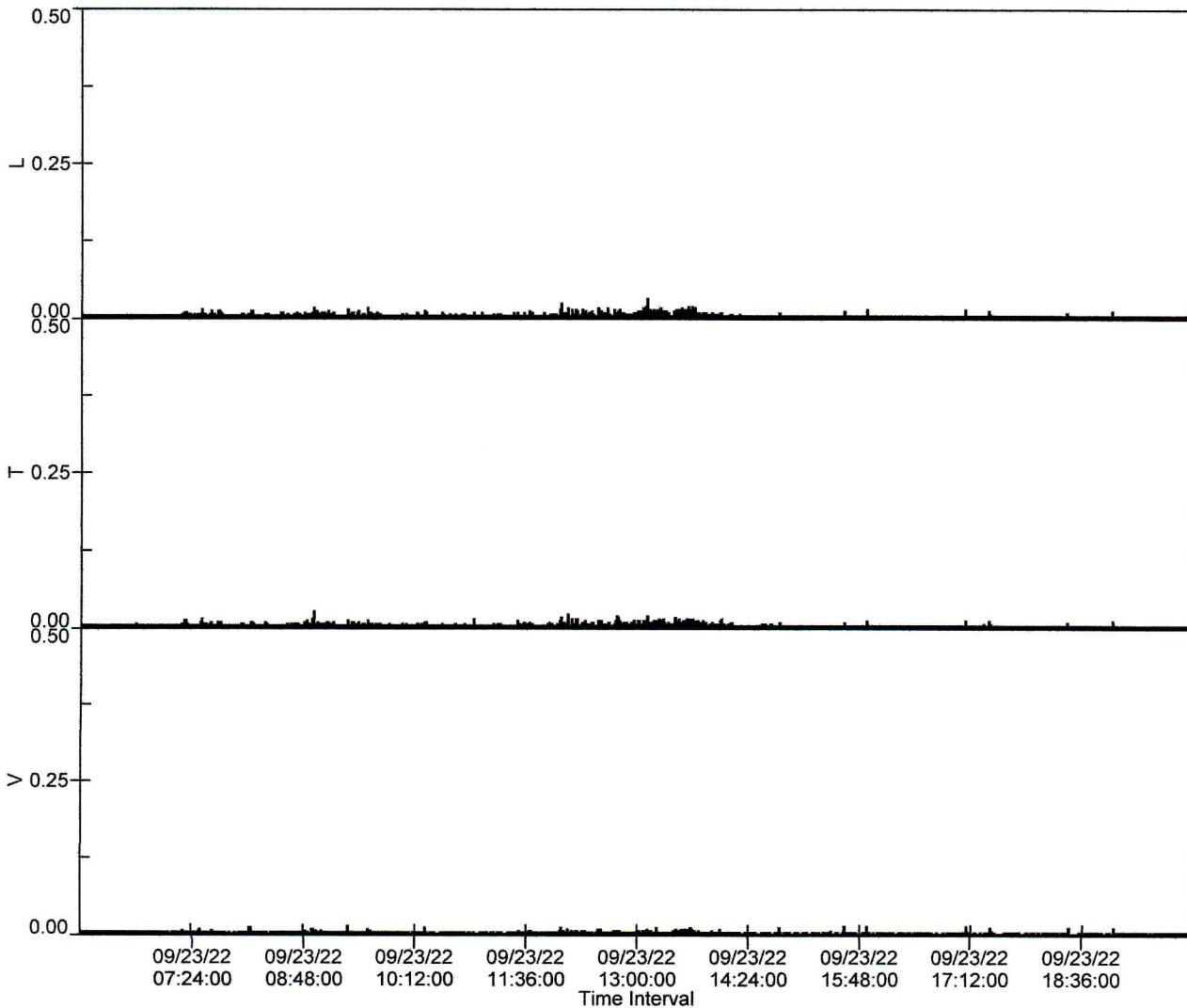
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 124

Record Max PPV: 0.033 in/s Record Max DB: 101 db



SN: 3647 v2.75
Date: 09/24/2022 **Time:** 06:01:00
Event: 125
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

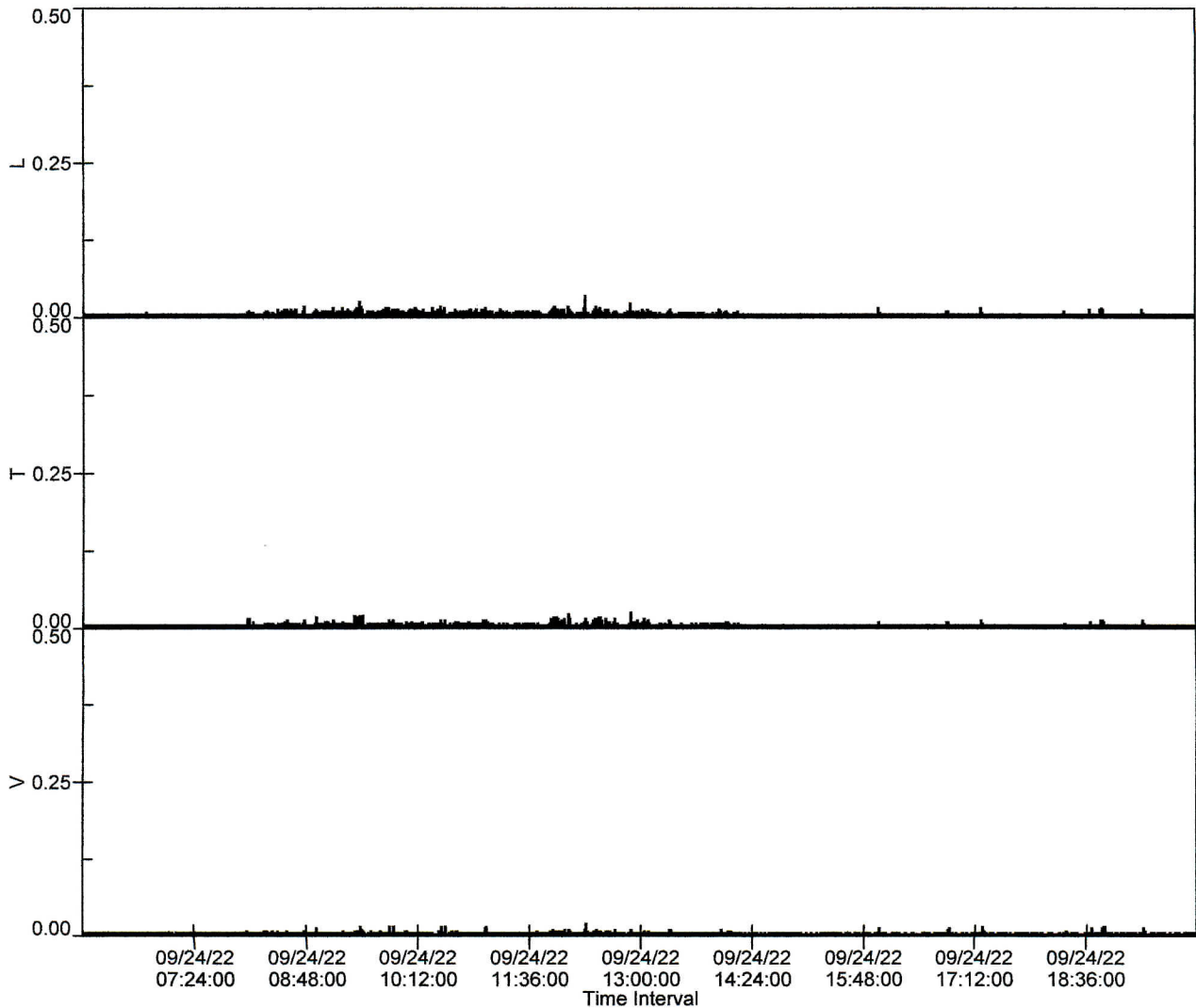
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.035 | 0.025 | 0.020 |
| FREQ (Hz) | 17.9 | 9.8 | 15.6 |
| Peak Air Pressure: | 101 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 125

Record Max PPV: 0.035 in/s Record Max DB: 101 db



SN: 3647 v2.75
Date: 09/25/2022 **Time:** 06:01:00
Event: 126
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

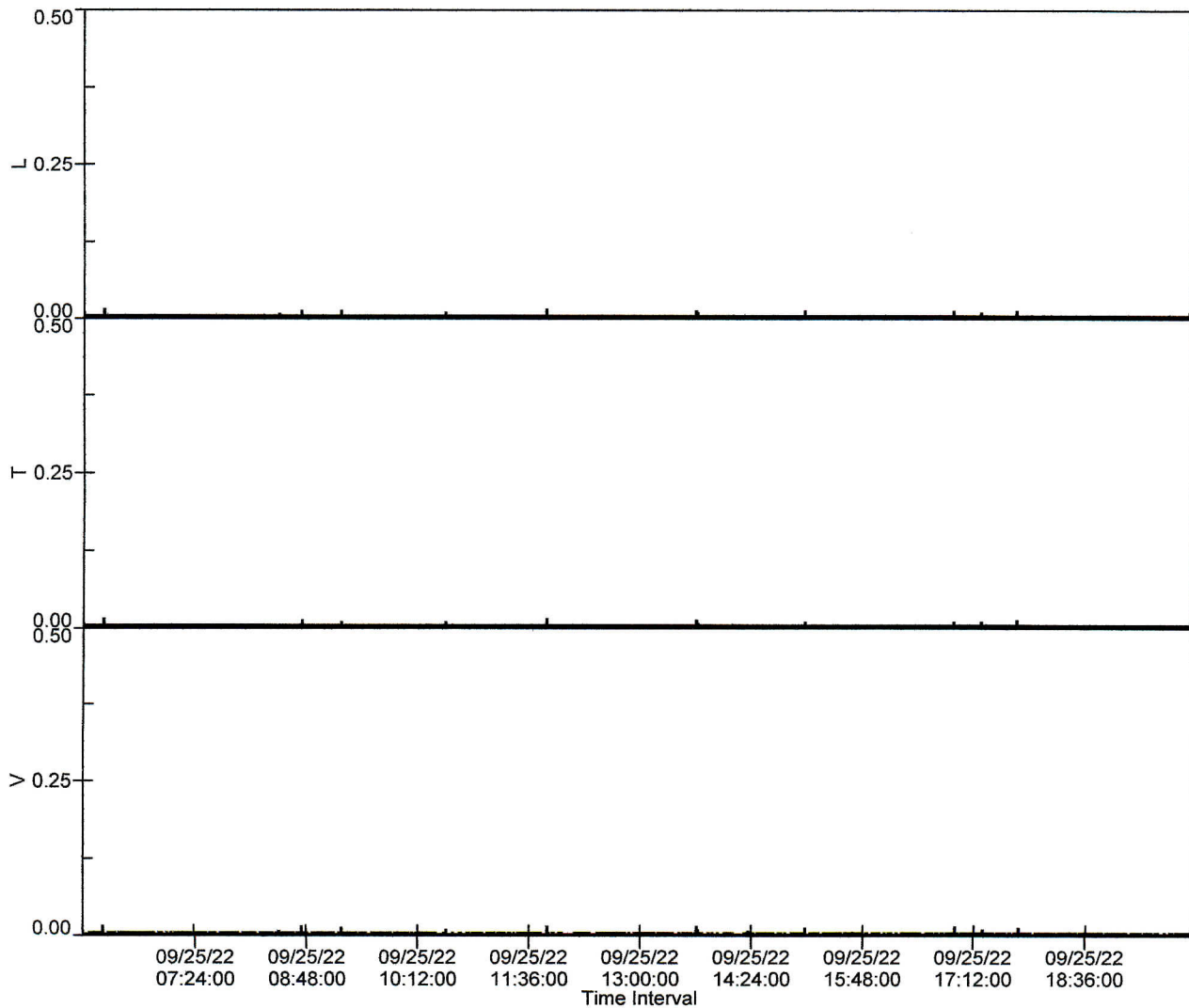
| | L | T | V |
|---------------------------|-------------|-------|-------|
| PPV (in/s) | 0.015 | 0.015 | 0.015 |
| FREQ (Hz) | 166.7 | 166.7 | 250.0 |
| Peak Air Pressure: | 102 db | | |
| Recording Time: | 838 minutes | | |
| Sample Size: | 1440 | | |
| Interval Size: | 60 seconds | | |

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 126

Record Max PPV: 0.015 in/s Record Max DB: 102 db



SN: 3647 v2.75
Date: 09/26/2022 **Time:** 06:01:00
Event: 127
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

| | L | T | V |
|------------------------------------|----------|----------|----------|
| PPV (in/s) | 0.030 | 0.018 | 0.020 |
| FREQ (Hz) | 8.2 | 12.8 | 9.1 |
| Peak Air Pressure: 101 db | | | |
| Recording Time: 389 minutes | | | |
| Sample Size: 1440 | | | |
| Interval Size: 60 seconds | | | |

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 127

Record Max PPV: 0.030 in/s Record Max DB: 101 db

