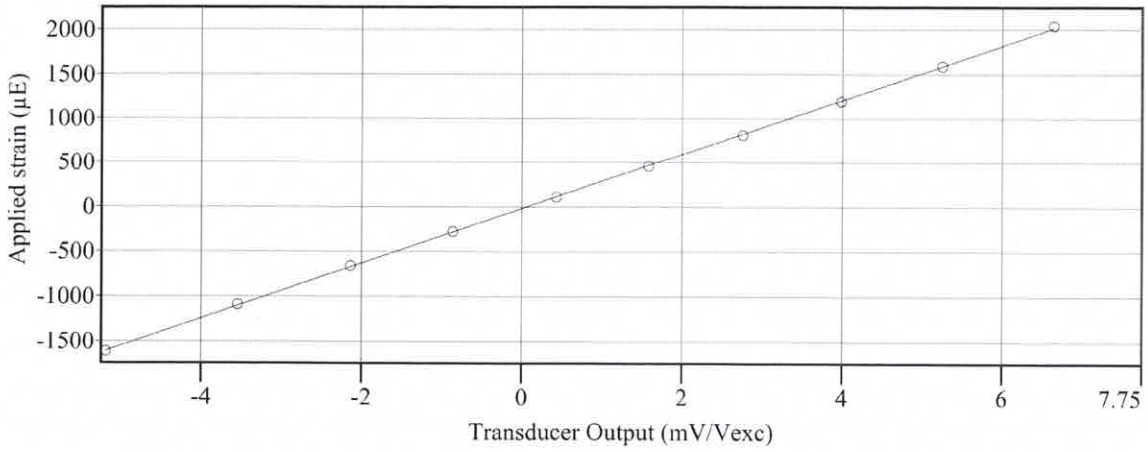
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: X051
PDI Gage Factor: 88.5
Mean Linear Correlation Coefficient: 0.999886

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1616.7	-5.195	458.3	1.582
-1091.7	-3.547	816.7	2.760
-658.3	-2.141	1191.7	3.987
-277.8	-0.863	1591.7	5.252
108.3	0.427	2041.7	6.641

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1006HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique.

Calibrated By: VANNA OUK Signature: Vanna Ouk

PDI Gage: X051

Calibration Date: APR 04 2024

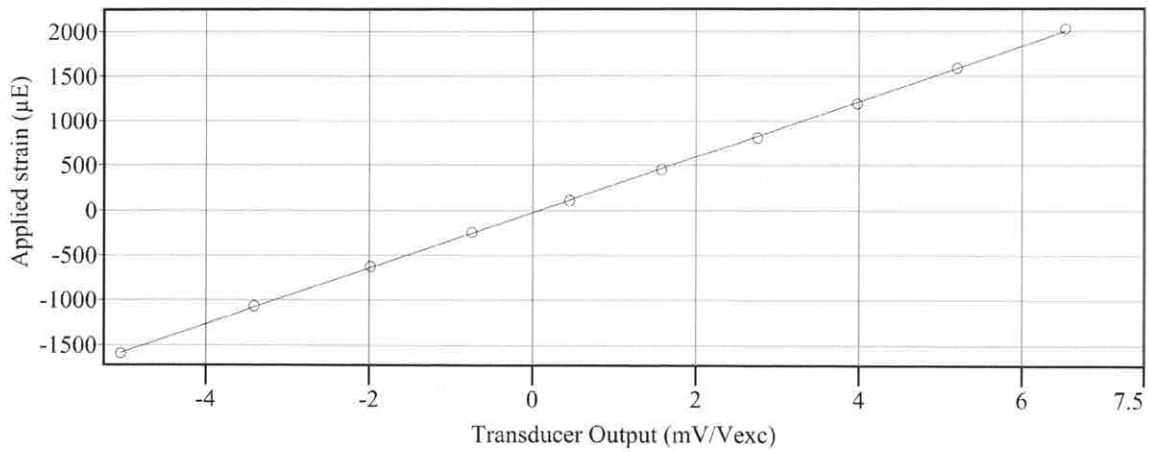
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: X050
PDI Gage Factor: 89.5
Mean Linear Correlation Coefficient: 0.999841

Table 1: Representative Calibration Data

Applied strain (με)	Gage Output (mV/Vexc)	Applied strain (με)	Gage Output (mV/Vexc)
-1591.7	-5.045	450.0	1.578
-1066.7	-3.411	816.7	2.758
-625.0	-1.986	1191.7	3.975
-241.7	-0.741	1591.7	5.201
108.3	0.452	2025.0	6.530

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1006HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique.

Calibrated By: VANNA OUK Signature: Vanna Ouk

PDI Gage: X050

Calibration Date: APR 04 2024

Pile Dynamics, Inc.

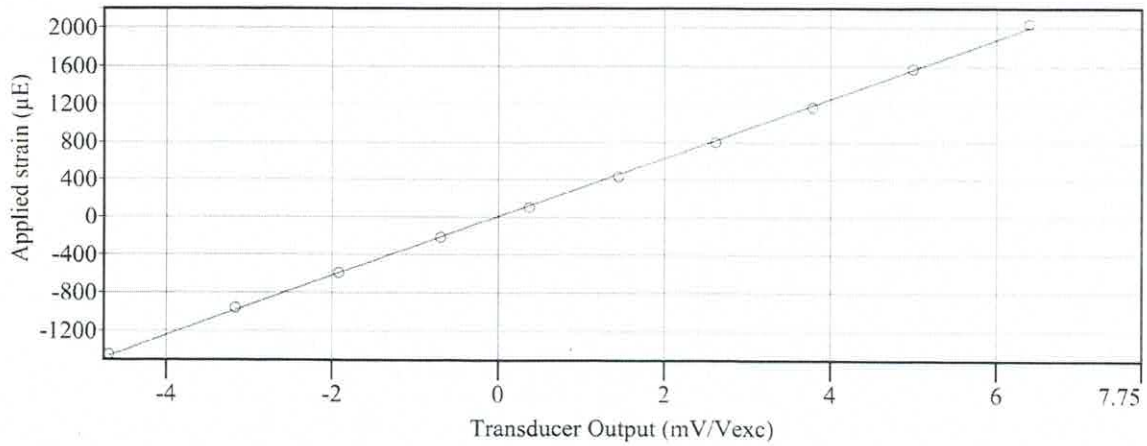
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: Z568
PDI Gage Factor: 90.1
Mean Linear Correlation Coefficient: 0.999611

Table 1: Representative Calibration Data

Applied strain (με)	Gage Output (mV/Vexc)	Applied strain (με)	Gage Output (mV/Vexc)
-1441.7	-4.690	433.3	1.449
-958.3	-3.169	800.0	2.613
-591.7	-1.919	1166.7	3.783
-216.7	-0.699	1572.2	4.996
100.0	0.371	2041.7	6.398

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1006HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique.

Calibrated By: Vanna Ouk

Signature: Vanna Ouk

PDI Gage: Z568

Calibration Date: APR 0 3 2024

Pile Dynamics, Inc.

Accelerometer Calibration Certificate
Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.
Calibration performed on

APR 0 3 2024

Serial No:	78288	**Temperature:**	22.8 °C
Model:	PE	**Humidity:**	29%
Calibrated on:	Channel 4 on 8G 5161 LE		

Ref Acc 1:	72505! 1035 g's/volt	**Cal on:**	05Apr2022
Ref Acc 2:	72517! 1049 g's/volt	**Cal on:**	05Apr2022

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

PDA CALIBRATION FACTOR

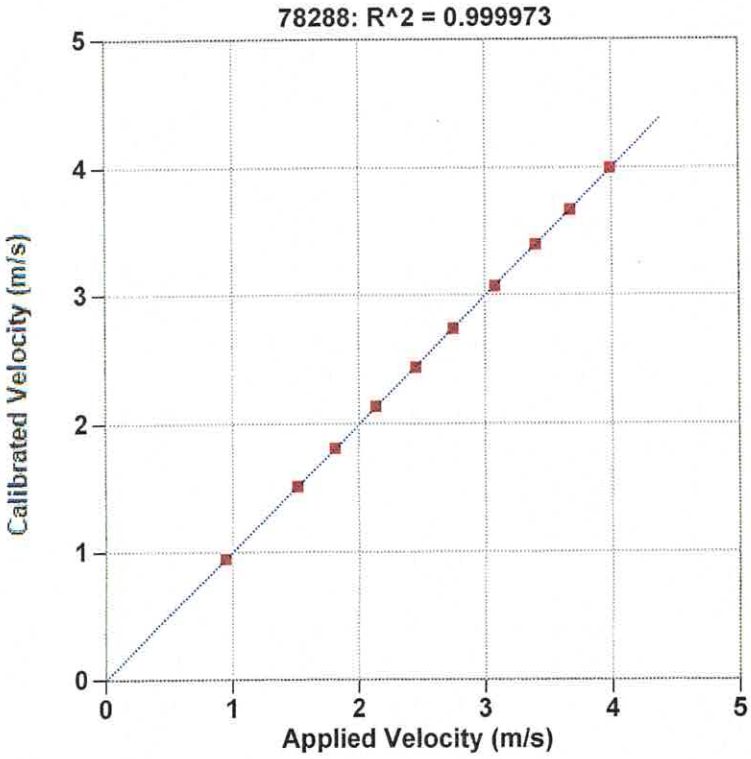
1003.1 g's/volt

R^2: 0.999973 [Chip programmed]

Operator: William Johnson

Signed

PILE DYNAMICS, INC.
ORIGINAL COPY



Reference Velocity	S/N 78288 Velocity
m/s	m/s
0.942	0.942
1.513	1.513
1.805	1.810
2.131	2.135
2.446	2.437
2.745	2.739
3.074	3.071
3.396	3.396
3.672	3.671
3.987	3.995

Maximum Acceleration: 854 g's

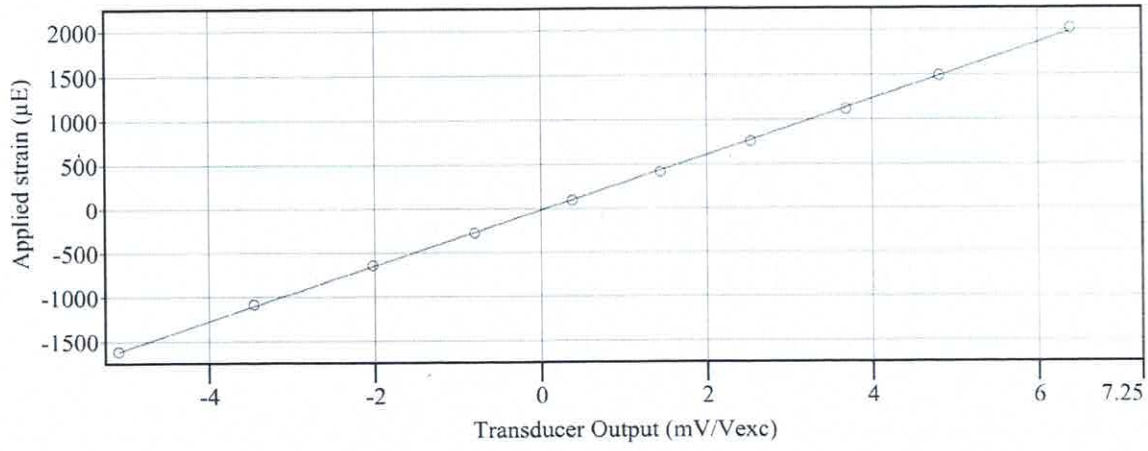
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: Z566
PDI Gage Factor: 90.5
Mean Linear Correlation Coefficient: 0.999744

Table 1: Representative Calibration Data

Applied strain (με)	Gage Output (mV/Vexc)	Applied strain (με)	Gage Output (mV/Vexc)
-1616.7	-5.094	408.3	1.446
-1083.3	-3.462	758.3	2.537
-641.7	-2.028	1116.7	3.683
-275.0	-0.797	1491.7	4.808
91.7	0.378	2016.7	6.392

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1006HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique.

Calibrated By: Vanna Ouk

Signature: Vanna Ouk

PDI Gage: Z566
Calibration Date: APR 04 2024

Pile Dynamics, Inc.

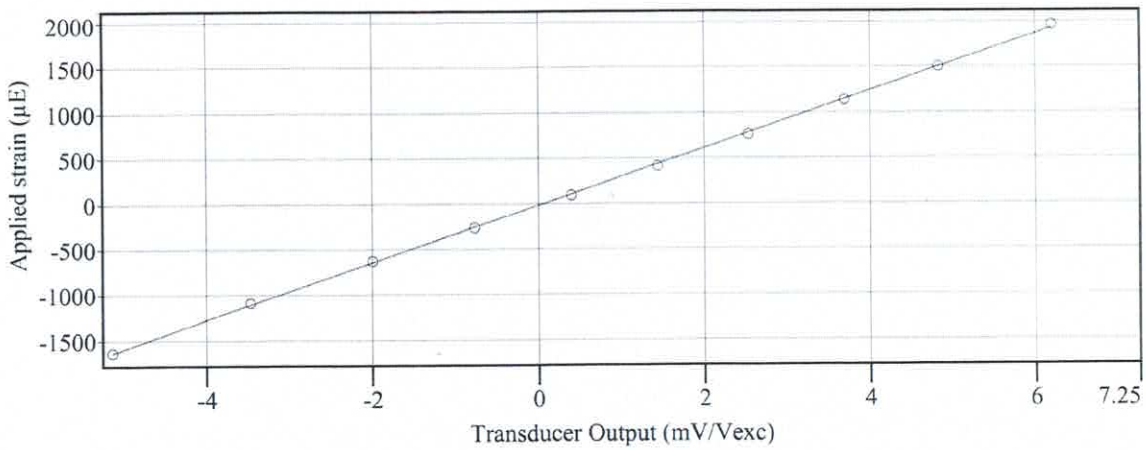
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: Z567
PDI Gage Factor: 90.9
Mean Linear Correlation Coefficient: 0.999723

Table 1: Representative Calibration Data

Applied strain (με)	Gage Output (mV/Vexc)	Applied strain (με)	Gage Output (mV/Vexc)
-1633.3	-5.140	408.3	1.442
-1091.7	-3.470	758.3	2.537
-633.3	-1.999	1133.3	3.692
-266.7	-0.765	1500.0	4.830
91.7	0.396	1966.7	6.197

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1006HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique.

Calibrated By: Vanna Ouk Signature: Vanna Ouk

PDI Gage: Z567
Calibration Date: APR 0 4 2024

Pile Dynamics, Inc.

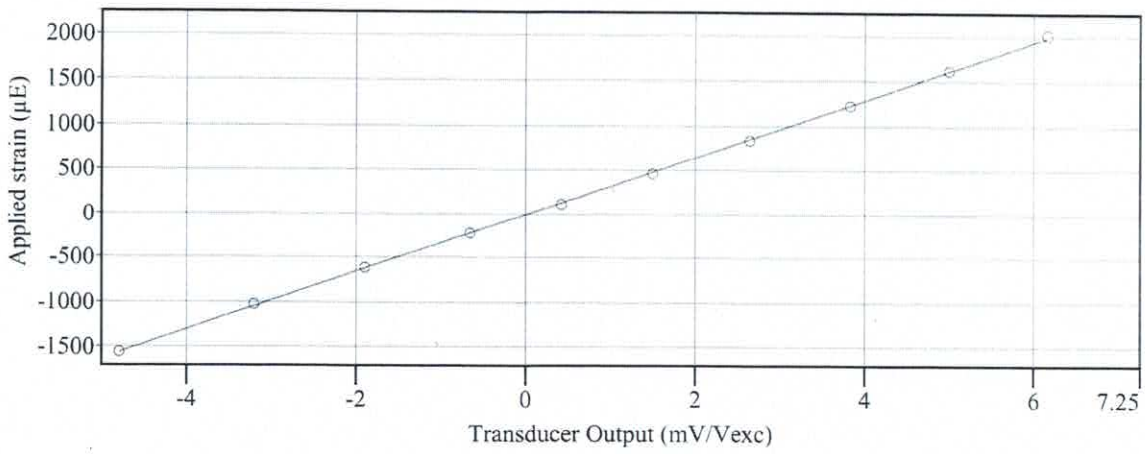
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: Z569
PDI Gage Factor: 93.6
Mean Linear Correlation Coefficient: 0.999796

Table 1: Representative Calibration Data

Applied strain (με)	Gage Output (mV/Vexc)	Applied strain (με)	Gage Output (mV/Vexc)
-1558.3	-4.794	458.3	1.500
-1025.0	-3.205	833.3	2.647
-616.7	-1.895	1225.0	3.827
-225.0	-0.654	1616.7	4.997
108.3	0.421	2016.7	6.159

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1006HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique.

Calibrated By: Vanna Ouk

Signature: Vanna Ouk

PDI Gage: Z569

Calibration Date: APR 04 2024

Pile Dynamics, Inc.

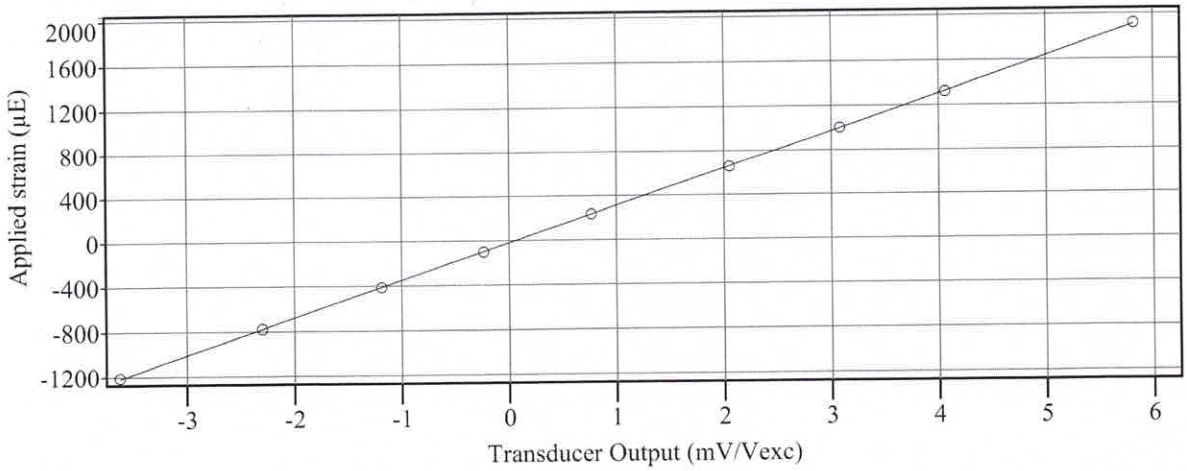
Certificate of Calibration

Pile Dynamics, Inc.
Transducer Model: PDI Strain Transducer
Serial Number: Z571
PDI Gage Factor: 97.1
Mean Linear Correlation Coefficient: 0.999980

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1213.9	-3.626	656.2	2.051
-780.8	-2.299	1003.9	3.080
-413.4	-1.187	1321.1	4.063
-98.4	-0.235	1916.0	5.818
236.2	0.766		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique.

Calibrated By: Paul Hartman Signature: Paul Hartman

PDI Gage: Z571

Calibration Date: APR 04 2024

Pile Dynamics, Inc.

Accelerometer Calibration Certificate
Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.
Calibration performed on APR 0 4 2024

Serial No:	K13895	**Temperature:**	23.5 °C
Model:	PR	**Humidity:**	28%
Calibrated on:	Channel 3 on 8G 5161 LE		

Ref Acc 1:	72505! 1035 g's/volt	**Cal on:**	05Apr2022
Ref Acc 2:	72517! 1049 g's/volt	**Cal on:**	05Apr2022

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

PDA CALIBRATION FACTOR

380.0 mv/5000g
(76.0 µv/g)
R^2: 0.999935 [Chip programmed]

Operator: William Johnson

Signed

PILE DYNAMICS, INC.
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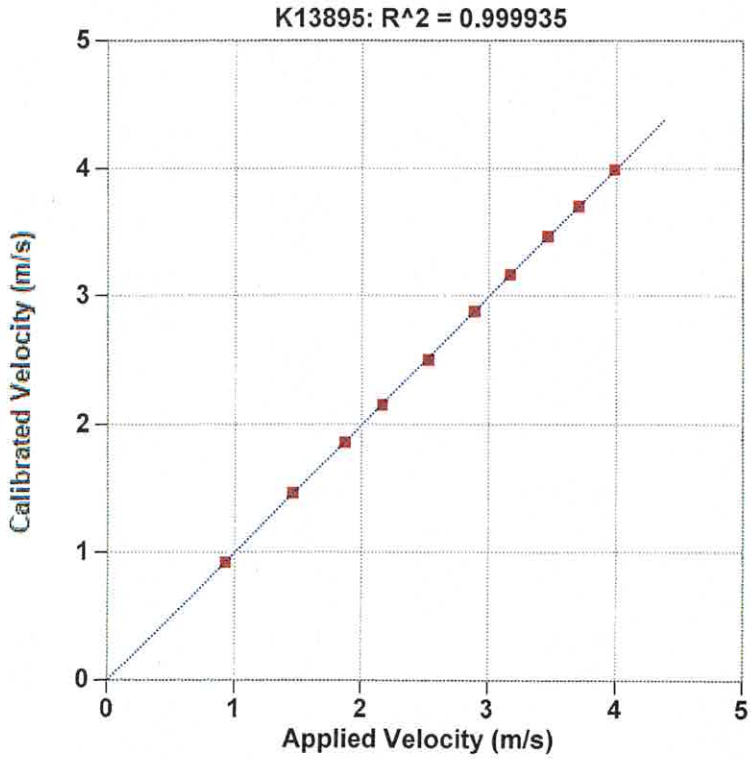


Reference Velocity	S/N K13895 Velocity
m/s	m/s
0.922	0.918
1.454	1.461
1.864	1.860
2.162	2.153
2.521	2.504
2.882	2.882
3.166	3.167
3.462	3.467
3.701	3.701
3.982	3.993

Maximum Acceleration: 856 g's

Accelerometer Calibration Certificate
Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.
Calibration performed on APR 04 2024

Serial No:	K13900	**Temperature:**	23.8 °C
Model:	PR	**Humidity:**	28%
Calibrated on:	Channel 3 on 8G 5161 LE		

Ref Acc 1:	72505! 1035 g's/volt	**Cal on:**	05Apr2022
Ref Acc 2:	72517! 1049 g's/volt	**Cal on:**	05Apr2022

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

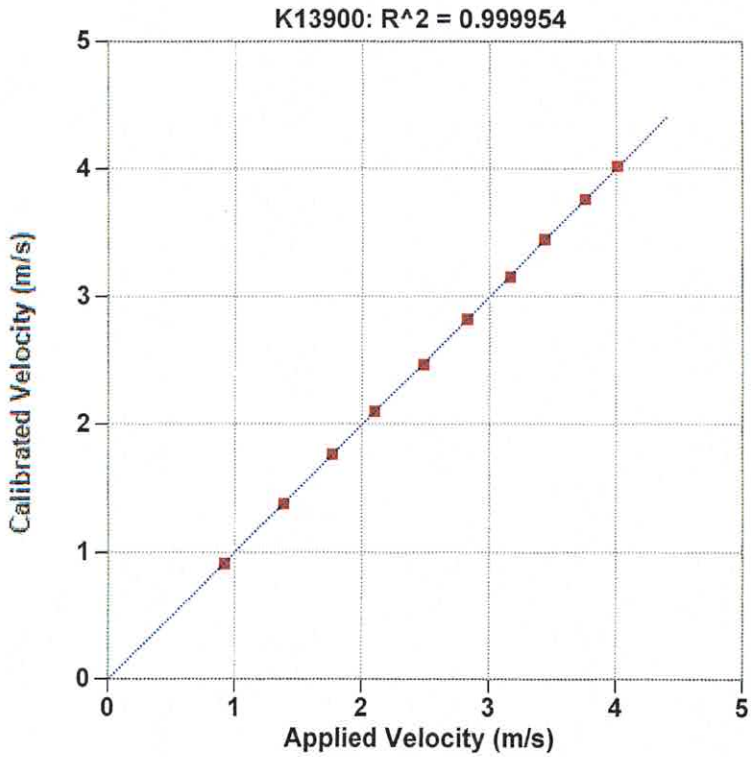
PDA CALIBRATION FACTOR

392.5 mv/5000g
(78.5 µv/g)
R^2: 0.999954 [Chip programmed]

Operator: William Johnson

Signed

PILE DYNAMICS, INC.
ORIGINAL COPY



Reference Velocity	S/N K13900 Velocity
m/s	m/s
0.916	0.911
1.381	1.376
1.761	1.764
2.098	2.100
2.482	2.473
2.826	2.823
3.167	3.154
3.440	3.444
3.754	3.758
4.006	4.018

Maximum Acceleration: 862 g's

Accelerometer Calibration Certificate
Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.
Calibration performed on APR 04 2024

Serial No:	K13896	**Temperature:**	23.5 °C
Model:	PR	**Humidity:**	28%
Calibrated on:	Channel 3 on 8G 5161 LE		

Ref Acc 1:	72505! 1035 g's/volt	**Cal on:**	05Apr2022
Ref Acc 2:	72517! 1049 g's/volt	**Cal on:**	05Apr2022

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

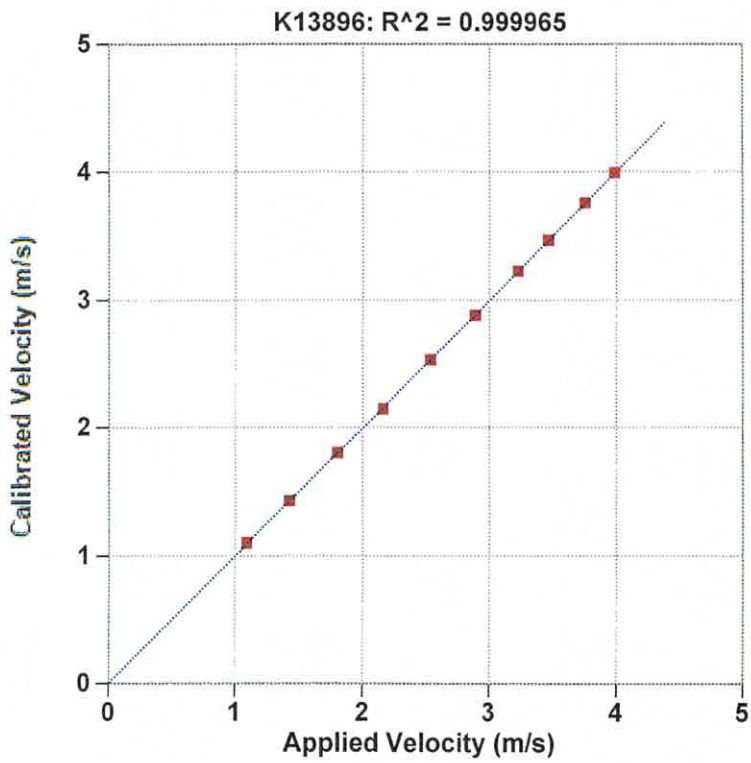
PDA CALIBRATION FACTOR

363.3 mv/5000g
(72.7 µv/g)
R^2: 0.999965 [Chip programmed]

Operator: William Johnson

Signed

PILE DYNAMICS, INC.
ORIGINAL COPY



Reference Velocity	S/N K13896 Velocity
m/s	m/s
1.090	1.100
1.429	1.429
1.802	1.801
2.157	2.146
2.532	2.528
2.884	2.881
3.226	3.226
3.467	3.466
3.752	3.758
3.985	3.990

Maximum Acceleration: 858 g's

Accelerometer Calibration Certificate
Pile Dynamics, Inc.

Calibrated by Pile Dynamics, Inc.
Calibration performed on APR 0 4 2024

Serial No:	K13893	**Temperature:**	23.8 °C
Model:	PR	**Humidity:**	28%
Calibrated on:	Channel 4 on 8G 5161 LE		

Ref Acc 1:	72505! 1035 g's/volt	**Cal on:**	05Apr2022
Ref Acc 2:	72517! 1049 g's/volt	**Cal on:**	05Apr2022

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).

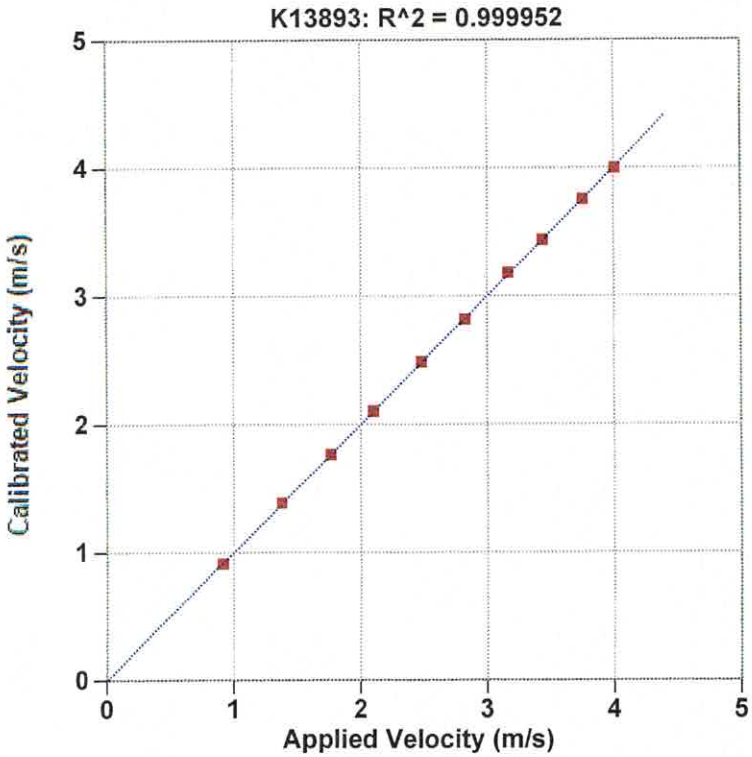
PDA CALIBRATION FACTOR

361.9 mv/5000g
(72.4 µv/g)
R^2: 0.999952 [Chip programmed]

Operator: William Johnson

Signed

PILE DYNAMICS, INC.
ORIGINAL COPY



Reference Velocity	S/N K13893 Velocity
m/s	m/s
0.916	0.907
1.381	1.384
1.761	1.761
2.098	2.100
2.482	2.484
2.826	2.816
3.167	3.181
3.440	3.441
3.754	3.756
4.006	3.999

Maximum Acceleration: 862 g's