

Noise Monitoring - Data Retrieval

Casella CEL-35X

**May be referenced for dBadge 2*

Travelers Laboratory



Important Reminders to Surveyor

1. Measurement run must be started/stopped to access data
2. Data must be retrieved following each run and will not be accessible if a new measurement run is started before retrieving data
3. Record data on Excel sheet provided by email to shipping contact
4. If you have any questions or need the Excel noise data sheet, call Travelers IH Helpline 1-800-842-0355



Excel Noise Data Sheet

TRAVELERS INDUSTRIAL HYGIENE SURVEY DATA - NOISE DOSIMETRY

[SAVE THIS DATA SHEET AND EMAIL A COPY TO \[IDATA@travelers.com\]\(mailto:IDATA@travelers.com\)](#) Job # or Survey Location:

Survey Date: _____ Company Name: _____
 Surveyor Name: _____ Street Address: _____
 Email Address: _____ City, State, Zip Code: _____

Please provide the following information:
 1. Do you have a formal Hearing Conservation Program? Yes No
 2. Does it include baseline audiograms? Yes No
 3. Does it include annual audiograms? Yes No
 4. Does it include employee training? Yes No
 5. What type of hearing protection is provided (please include Noise Reduction Rating (NRR))?

 6. Is use of hearing protection mandatory? Yes No

Dosimeter Calibrator ID No		Calibrator Make/Model:		Casella CEL-120/2		Dosimeter Make/Model:		T80 8-hour Calculated T80		T30 8-hour Calculated T30		Minimum NRR		
Dosimeter No.	Pre-Cal	Post-Cal	Employee Name	Job Title	Shift Duration	Start Time	End Time	Monitoring Duration	T80 LAVG T80 DOSE	T80 8-hour PDOSE	T80 8-hour PDOSE	T30 LAVG T30 DOSE	T30 8-hour PDOSE	Calculated Minimum NRR

*Yellow cell indicates result reach/exceed OSHA Action Level *Red cell indicates result reach/exceed OSHA Criterion Level

OSHA Action Level

OSHA Criterion Level

Those areas where noise exposures reach/exceed 50% should be included in a Hearing Conservation Program. Noise sampling results were evaluated based on the OSHA Occupational Noise Standard, Title 29 of the Code of Federal Regulations Part 1910.95. The 80 dBA threshold columns represent the OSHA Action Level, which is equivalent to an eight-hour time weighted average (TWA) of 85 dBA, with all sound between 80 and 130 dBA considered in the noise dose calculation. A formal Hearing Conservation Program must be implemented when there is a noise dose of 50% (85 dBA) or more. Additionally, the use of hearing protection becomes mandatory when there is a permanent threshold shift (PTS) in hearing as determined during annual audiograms.

When the work shift exceeds eight hours, the noise exposure dose for the extended exposure period is calculated in order to allow comparison of this equivalent dose to the Occupational Safety and Health Administration (OSHA) Action Level of 50-percent (85 dBA). The extended shift noise exposure dose is calculated using the following formula:
Extended Shift 50 dBA Threshold = (measured 80 dBA Threshold x length of extended shift) / time sampled
 (Time can be expressed in hours or minutes as long as units are consistent)

For more information refer to:
[Noise Reduction Rating](#)
[Extended Work Shifts for Noise Exposure](#)
[Noise Monitoring & Evaluation Criteria](#)

Instructions Troubleshooting Settings Enter Noise Data Here

- Instructions
 - Noise dosimeter operation and data retrieval
- Troubleshooting Settings
 - To fix data readout
- Enter Noise Data Here
 - To document data



Survey Information

TRAVELERS INDUSTRIAL HYGIENE SURVEY DATA – NOISE DOSIMETRY

[SAVE THIS DATA SHEET AND EMAIL A COPY TO IHDATA@travelers.com](mailto:IHDATA@travelers.com) Job # or Survey Location:

Survey Date: _____ Company Name: _____
 Surveyor Name: _____ Street Address: _____
 Email Address: _____ City, State, Zip Code: _____

Fill out both sections completely

Please provide the following information:

1. Do you have a formal Hearing Conservation Program? Yes No

2. Does it include baseline audiograms? Yes No

3. Does it include annual audiograms? Yes No

4. Does it include employee training? Yes No

5. What type of hearing protection is provided (please include Noise Reduction Rating (NRR))?

6. Is use of hearing protection mandatory? Yes No

- Following completion of noise monitoring send data sheet to IHDATA@travelers.com. For ease of use, click the link in the data sheet as shown

The screenshot shows the top portion of the data sheet. A red circle highlights the email link IHDATA@travelers.com. Another red circle highlights the 'Enter Noise Data Here' button at the bottom of the page. The page also contains a table for recording noise data and two graphs for OSHA Action Level and OSHA Criterion Level.

- Please include NRR of hearing protection devices used



Equipment Details



Dosimeter Make/Model:

T80 PDOSE T90 LAVG T90 DOSE

EXTENDED NRR

Dosimeter Make/Model:

Dosimeter Make/Model:

Dosimeter Calibrator ID No.:

TRAVELERS' INDUSTRIAL HYGIENE SURVEY DATA - NOISE DOSIMETRY

Survey Date: Survey Time: Job # or Survey Location:

Survey Place: Street Address:

City, State, Zip Code:

Please provide the following information:

1. Do you have a formal hearing Conservation Program? Yes No

2. Does it include baseline audiograms? Yes No

3. Does it include annual audiograms? Yes No

4. Does it include employee training? Yes No

5. What type of hearing protection is provided (please include Noise Reduction Rating (NRR)?

6. Is use of hearing protection mandatory? Yes No

Dosimeter Calibrator ID No.: **Calibrator Make/Model:** **Dosimeter Make/Model:**

Dosimeter No.	Pre-Cut	Post-Cut	Employee Name	Job Title	Shift Duration	Start Time	End Time	Measurement Duration	T80 LAVG T80 DOSE	T90 LAVG T90 DOSE	T80 PDOSE	T90 PDOSE	NRR

OSHA Action Level

OSHA Criterion Level

These areas where noise exposures exceed 85 dBA should be included in a hearing Conservation Program. Noise sampling results were calculated based on the OSHA Occupational Noise Standard, 29 CFR 1910.95 of Federal Regulations Part 1910.95. The OSHA Standard defines the OSHA Action level which is considered to be an eight-hour time-weighted average (TWA) of 85 dBA, with all noise between 80 and 140 dBA considered in the noise dose calculation. A formal hearing Conservation Program must be implemented when there is a noise dose of 20% (85 dBA) or more. Additionally, the use of hearing protection becomes mandatory when there is a permanent hearing threshold shift (PTS) to be determined during annual audiograms.

When the work shift exceeds eight hours, the noise exposure dose for the extended exposure period is calculated in order to show compliance of the standard with the Occupational Safety and Health Administration (OSHA) Action Level of 50 percent (5%). The extended shift noise exposure dose is calculated using the following formula: **Extended Shift T80 Dose Threshold = (measured T80 Dose Threshold x length of extended shift) / time sampled** (Time can be expressed in hours or minutes as long as units are consistent).

These areas where noise exposures exceed 90 dBA should be included in a hearing Conservation Program and hearing protection use should be required. Engineering and/or administrative noise reduction controls should be investigated and implemented. The OSHA Standard defines exposure to the OSHA Criterion level, which allows exposure to a specific sound pressure level for a specified time period. In this case, all sound between 90 and 135 dBA is included in the noise dose calculation. A formal hearing Conservation Program and the implementation of feasible engineering and/or administrative controls are required when a noise dose of 100% (90 dBA) is reached. The use of proper hearing protection is required until effective noise reduction controls are implemented.

For more information refer to: [Noise Reduction Guide](#), [Canadian Noise Standard](#), [Noise Exposure](#), [Noise Monitoring & Evaluation Guide](#)

Instructions | Troubleshooting Settings | [Enter Noise Data Here](#)

- Fill out this section as shown above
- Dosimeter Calibrator ID Number varies



Data Entry

Dosimeter No.	Pre-Cal	Post-Cal	Employee Name	Job Title	Shift Duration	Start Time	End Time
11083	114	113.9	Bob	Grinding	10	7:00 AM	1:56 PM

- Dosimeter No. located on front of noise dosimeter
- Pre-Cal and Post-Cal
- Employee Name
- Job Title
- Shift Duration
 - What is the shift length employees typically work?
 - This is not the duration of noise monitoring
- Start Time (enter as 07:00), Stop Time (enter as 13:56)
 - Use 24-hour clock to enter times

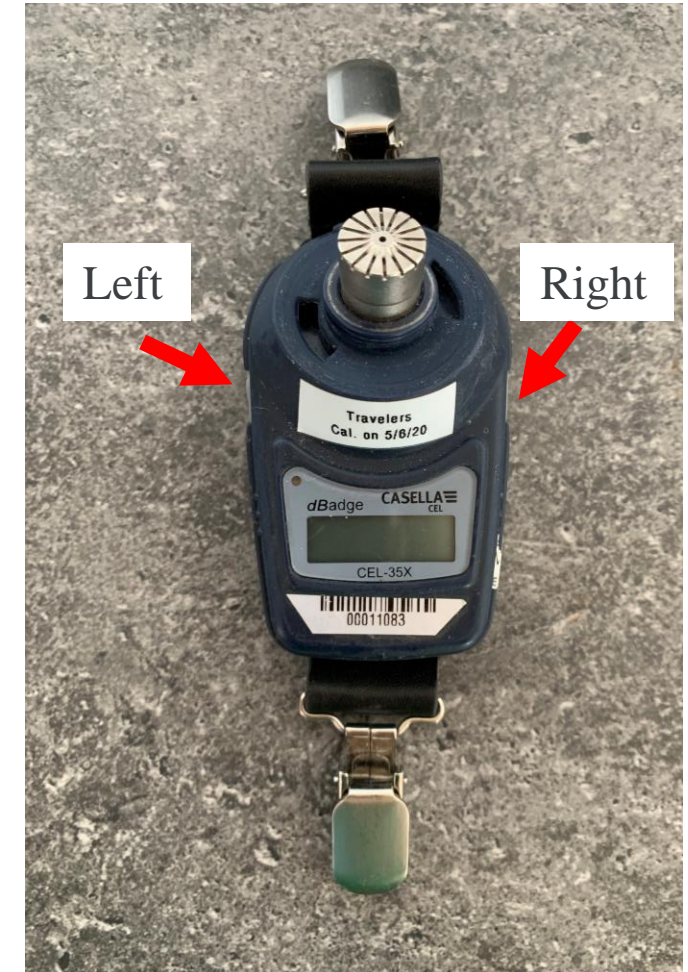


For questions on calibrating/starting measurement run see the instructional video on Travelers Lab Website: [Casella CEL-35X Noise Dosimeter Operation](#)



Data Entry - Retrieval from Noise Dosimeter

- If you have not already done so, stop the measurement run by holding down both buttons at the same time (stop 3, 2, 1).
- Power on (press LEFT button) your dosimeter if it is turned off and post calibrate
 - For questions on operating the dosimeter or calibrating see the instructional video on Travelers Lab Website: [Casella CEL-35X Noise Dosimeter Operation](#)
- Scroll through the data by pressing the RIGHT button
 - Remember do not start a new measurement run as only the most recent run is displayed



Data Entry - Monitoring Duration

Dosimeter No.	Pre-Cal	Post-Cal	Employee Name	Job Title	Shift Duration	Start Time	End Time	Monitoring Duration
11083	114	113.9	Bob	Grinding	10	7:00 AM	1:56 PM	6:56

- Noise Dosimeter Format is HH:MM:SS
- Enter only HH:MM on data sheet



Data Entry - LZPK

- Peak noise level measured
 - Peak levels are not needed for interpretation
 - Do not record



Data Entry - T80



Shift Duration	Start Time	End Time	Monitoring Duration	T80 LAVG	T80 DOSE	T80 8-hour PDOSE	Calculated T80 PDOSE EXTENDED
10	7:00 AM	1:56 PM	6:56	99.3	315.0	363.4	454.3

3 1 2

- T80 DOSE (1)
- T80 8-hour PDOSE (2)
- T80 LAVG (3)
- T80 TWA - do not record (4)
- LAVG values less than 65, enter as <65
- “---” or 0.0 should be entered if shown

Calculated T80 P. Dose Extended - this value is calculated based on Shift Duration & T80 8-hour PDOSE



Data Entry - T90



1



2



3



4

T80 LAVG	T80 DOSE	T80 8-hour PDOSE	Calculated T80 PDOSE EXTENDED	T90 LAVG	T90 DOSE	T90 8-hour PDOSE	Calculated Minimum NRR
99.3	315.0	363.4	454.3	99.3	314.9	363.3	36

3

1

2

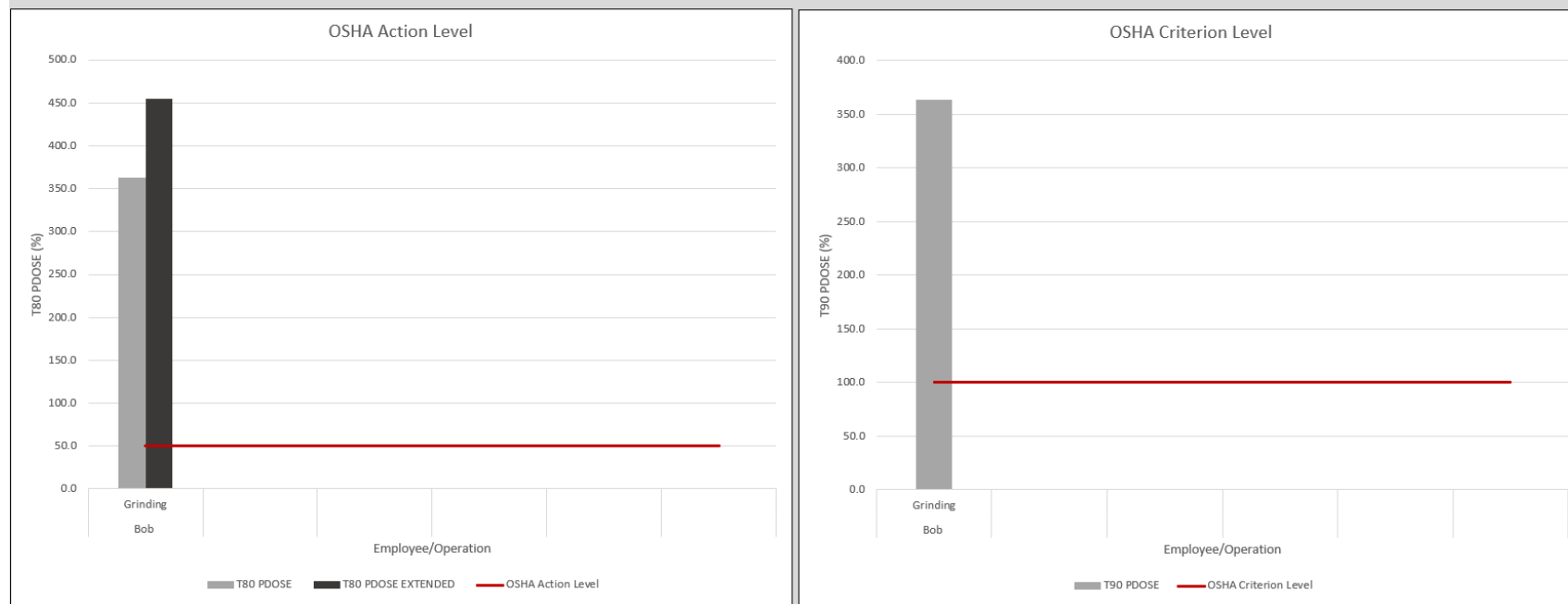
- T90 DOSE (1)
- T90 8-hour PDOSE (2)
- T90 LAVG (3)
- T90 TWA - do not record (4)
- LAVG values less than 65, enter as <65
- “---” or 0.0 should be entered if shown

Calculated Minimum NRR or noise reduction rating is calculated for LAVG > 90 dBA



Data Interpretation

Send completed data sheet(s) to IHDATA@travelers.com



- OSHA Action Level - graphs T80 8-hour PDOSE and Calculated T80 PDOSE Extended
- OSHA Criterion Level - graphs T90 8-hour PDOSE
- Additional information for your results are below the graphs



Glossary of Terms

Definitions

dB A:	Decibels, A-weighted, slow response.
PRE:	Pre-sampling calibration verification - Sound level (LAS), in dBA.
POST:	Post-sampling calibration verification - Sound level (LAS), in dBA..
Threshold:	Decibel level at which the dosimeter begins accumulating data. Noise levels below the threshold are not collected by the dosimeter.
80 dB Threshold	Noise levels between 80 dBA and 130 dBA are collected.
90 dB Threshold	Noise levels between 90 dBA and 115 dBA are collected.
LAVG	The average noise level (dBA) for an 8-hour shift.
P Dose %	The projected dose % for an 8-hour shift.
Dose %	The dose % for the time monitored.

Need to create a second page for noise data?
Click on survey date entry box for instructions

Survey Date:	<input type="text"/>	Company Nam
Surveyor Name:		
Email Address:		

Create Additional Data Sheet(s)
Right click "Enter Noise Data Here",
select "Move or Copy", select "Move
to End", check "Create a Copy", select
"OK"

