

# **ROADWAY CONSTRUCTION NOISE MODELING OUTPUTS**

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/24/2024  
Case Description: Site Preparation

Description Land Use  
Site Preparation Residential

Description			Equipment		Receptor Distance (feet)
	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	
Grader	No	40	85		150
Tractor	No	40	84		150

Calculated (dBA)

Equipment	*Lmax	Leq
Grader	75.5	71.5
Tractor	74.5	70.5
Total	75.5	74

\*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/24/2024  
Case Description: Grading

Description Land Use  
Grading Residential

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Grader	No	40	85		150
Tractor	No	40	84		150
Dozer	No	40		81.7	150

Calculated (dBA)

Equipment	*Lmax	Leq
Grader	75.5	71.5
Tractor	74.5	70.5
Dozer	72.1	68.1
Total	75.5	75

\*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2024  
Case Description: Well Construction - Daytime

Description Land Use  
Well Construction - Residential  
Daytime

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Crane	No	16		80.6	10
Gradall	No	40		83.4	10
Gradall	No	40		83.4	10
Tractor	No	40	84		10
Tractor	No	40	84		10
Well Auger Drill	No	80		84.4	10
Generator	No	50		80.6	10
Pumps	No	50		80.9	10
Compressor (air)	No	40		77.7	10

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	94.5	86.6
Gradall	97.4	93.4
Gradall	97.4	93.4
Tractor	98	94
Tractor	98	94
Well Auger Drill	98.4	97.4
Generator	94.6	91.6
Pumps	94.9	91.9
Compressor (air)	91.6	87.7
Total	98.4	102.8

\*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2024  
Case Description: Nighttime drilling

Description Land Use  
Well Drilling - Residential  
Nighttime

Description			Equipment		Receptor Distance (feet)
	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	
Well Auger Drill	No	80		84.4	10

Calculated (dBA)

Equipment	*Lmax	Leq
Well Auger Drill	98.4	97.4
Total	98.4	97.4

\*Calculated Lmax is the Loudest value.

## **SOUNDPLAN MODELING OUTPUTS**

SoundPLAN  
Output Source Information

Number	Reciever Name	Floor	Daytime Level at Receiver	Nightttime Level at Reciver
1	Residence north of Project Site	Ground Floor	40.3 dBA	35.6 dBA
2	Residence northwest of Project Site	Ground Floor	40.8 dBA	36.0 dBA
3	Residence northwest of Project Site	Ground Floor	43.3 dBA	37.7 dBA
4	Residence west of Project Site	Ground Floor	44.8 dBA	39.3 dBA
5	Residence west of Project Site	Ground Floor	44.1 dBA	38.4 dBA
6	Residence south of Project Site	Ground Floor	40.5 dBA	34.4 dBA




Number	Noise Source Information	Citation	Level at Source	
1	Daytime Well Construction Equipment	RCNM	102.8 dBA	-
2	Nightttime Well Construction (Auger Drill Rig only)	RCNM	-	97.4 dBA

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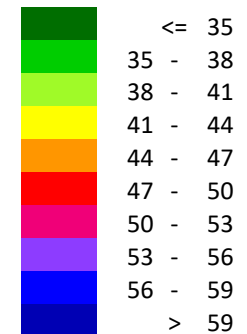


**Figure 4.13-1: Daytime Noise Generation for the Yeager Well Construction**

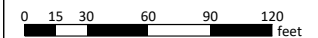
**Signs and symbols**

-  Well Construction/Drilling
-  Noise Receptors
-  Sound Wall

**Level scale in dB(A)  
Leq,d**



Scale 1:87



 **ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS



Map Date: 5/14/2025  
2021-055.017 Yeager Well Replacement Project





**Figure 4.13-2: Nighttime Noise Generation for the Yeager Well Construction**

**Signs and symbols**

- ◆ Well Construction/Drilling
- Noise Receptors
- Sound Wall

**Level scale in dB(A)  
Leq,d**

	<= 35
	35 - 38
	38 - 41
	41 - 44
	44 - 47
	47 - 50
	50 - 53
	53 - 56
	56 - 59
	> 59



Scale 1:87

