

NOISE IMPACT ASSESSMENT

Agromin
Commercial Organics Processing Operation
Santa Paula, California 93060

March 8, 2017
Revised: February 25, 2020

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County of Ventura
Notice of Preparation
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Attachment 15 - Noise Impact
Assessment

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EXECUTIVE SUMMARY

This Noise Impact Assessment (NIA), originally prepared March 8, 2017, has been updated to correct the use of daytime noise criteria and to revise mitigation measures recommended in the original report. Since preparing the 2017 NIA, it was determined that certain Ventura County noise criteria/significance thresholds were inappropriately applied to determine the significance of construction noise impacts at nearby receptors. This revised NIA has been prepared to reevaluate the 2017 construction noise assessment and revise the previously recommended mitigation measures where appropriate.

This NIA has been prepared for Agromin to quantify and determine the significance of noise impacts associated with the construction and operation of the proposed Commercial Organics Processing Operation (Facility) located near the City of Santa Paula, Ventura County, California. Agromin is proposing to expand their existing 15-acre agricultural compost operation into a 70-acre commercial composting facility (Project). This NIA follows methodologies outlined in the *Ventura County General Plan*, the *Ventura County Initial Study Assessment Guidelines*, and *Ventura County's Construction Noise Threshold Criteria and Control Plan*.

The Facility will process green and food material feedstocks into saleable compost and other organic products using the following processes:

- Open Windrows;
- Covered Aerated Static Piles (CASP's); and
- Anaerobic Digesters (AD's).

Feedstock materials will be delivered to the Facility via haul trucks from locations throughout Ventura County and the City of Carpinteria. The Facility will also receive feedstock materials from self-haulers (e.g. landscapers, residents) and shipments of soil amendment products (peat moss, gypsum, mulch), which are then blended with compost to produce specialty products. Onsite bulk sales to customers will also occur at the Facility.

This NIA, which addresses noise impacts from Project construction, industrial (i.e. onsite), and traffic sources, finds that:

- Mitigated Project construction phase noise impacts are less than significant at all noise sensitive receptors (dwellings, schools, hospitals, nursing homes, and libraries).
- Unmitigated Project operation phase noise impacts are less than significant at all noise sensitive receptors (dwellings, schools, hospitals, nursing homes, and libraries).
- The Project will result in a Class II impact, significant but mitigable to less than significant.

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 Santa Paula, California

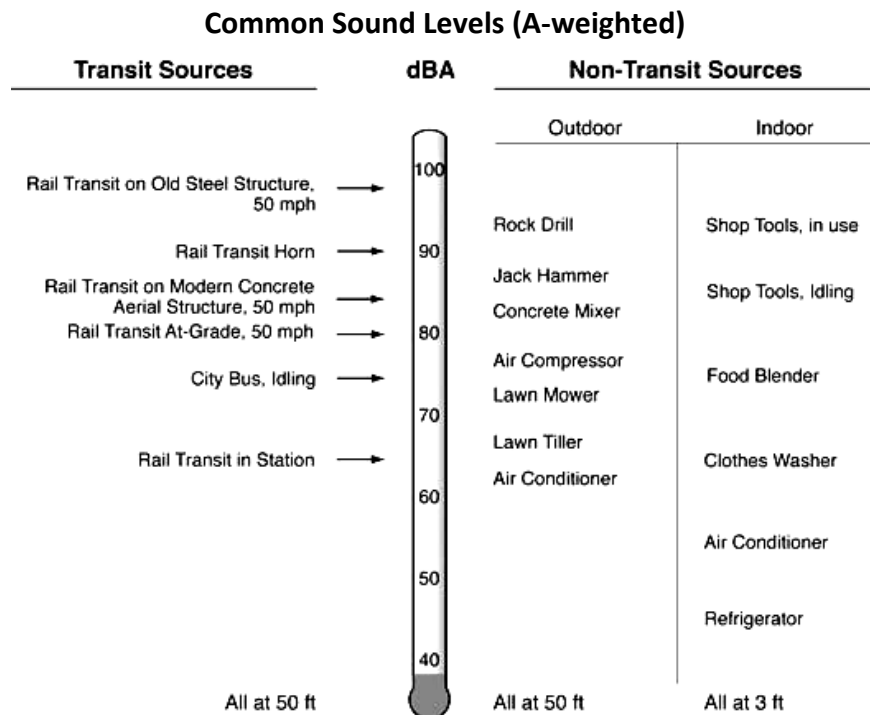
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1.0 INTRODUCTION

This Noise Impact Assessment (NIA) has been prepared for Agromin to quantify and determine the significance of noise impacts associated with the construction and operation of the proposed Commercial Organics Processing Operation (Facility) located near the City of Santa Paula, Ventura County, California (Figure 1, Appendix A). Agromin is proposing to expand their existing 15-acre agricultural compost operation into a 70-acre commercial composting facility (Project).

This NIA has been prepared for use in California Environmental Quality Act (CEQA) documentation for the Project. This NIA follows methodologies outlined in the Ventura County *General Plan Noise Element* (Noise Element), the Ventura County *Initial Study Assessment Guidelines* (CEQA Guidelines), and Ventura County *Construction Noise Threshold Criteria and Control Plan* (Construction Guidelines). Facility industrial source noise (i.e. equipment operating onsite) and transportation noise (i.e. vehicles on local haul routes) have been quantified and compared to appropriate significance thresholds in this NIA. Project construction noise impacts are also addressed.

As a frame of reference for the noise levels presented in this NIA, the following illustration from the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment* presents the level of noise generated by common activities.



2.0 PROJECT DESCRIPTION

This section presents the portions of the Project Description that are applicable to noise. For more detailed and complete Project information, please see the full Project Description.

2.1 Project Operation

The Project site is located at the south end of Edwards Ranch Road in unincorporated Ventura County, south of the City of Santa Paula (Figure 1, Appendix A). Agromin currently operates the site as a 15-acre green and agricultural materials compost facility, called the Limoneira/Agromin Agricultural Composting Operation, which processes approximately 55,000 tons of green material per year. Current operations here include material receiving and sorting, pre-processing using a grinder and trommel screens, and composting of organics in open windrows. The Project involves transforming this existing 15-acre operation into a 70-acre commercial composting facility.

Also as part of the Project, Agromin will close down their existing compost facility located in Oxnard, commonly known as the Oxnard-Shoreline facility, transferring all operations to the new Facility in Santa Paula. Current operations at the Oxnard-Shoreline facility include feedstock receiving and sorting, pre-processing using grinders and trommel screens, green material composting in open windrows, food materials composting using a Covered Aerated Static Pile (CASP) pilot program, as well as bagging and bulk sales activities. Many of the existing operations at the 11-acre Oxnard-Shoreline facility (e.g. windrow composting, preprocessing and grinding, bagging and bulk sales, mobile and stationary processing equipment, etc.) are identical to the operations proposed for this Project. As such, noise measurements collected at the Oxnard-Shoreline facility are used to quantify noise levels of certain Project operations (i.e. open windrow processing) within this NIA. See Section 6.1 and Appendix F for more details regarding Facility noise sources and methodologies.

Once constructed, the Facility will process approximately 295,000 tons per year of green and food materials, using a combination of open windrows, Covered Aerated Static Piles (CASP), and Anaerobic Digesters (AD). See Figure 3 (Appendix A) for a site plan showing the proposed Facility layout. The following is a brief description of these three (3) primary Facility operations with the potential to generate noise impacts to nearby receptors:

Open Windrows: Open windrow composting will be greatly expanded at the new Facility, processing approximately 180,000 tons of green and agricultural materials per year. Open windrows aerobically compost feedstock material in elongated piles. Green and agricultural material “unders” generated after chipping and grinding are formed into windrow piles using front-end loaders. During the active composting phase windrows are periodically turned using a pile turner to maintain proper temperature and moisture levels. A water truck is also utilized to maintain moisture levels within the windrows. The total windrow composting process can take up to 90 days for active composting and curing. Equipment utilized for windrow processing includes off-road equipment (front-end loaders, pile turners), portable equipment (screens, grinders) and on-road trucks (dump/water truck). Equipment utilized for open windrow composting will operate during daylight hours (sunrise-sunset) only.

CASP’s: Covered Aerated Static Pile (CASP) systems will be installed to aerobically decompose green and food material feedstocks into useable compost. The CASP will incorporate a multi-laminate GORE™ Cover System, a concrete in-floor aeration system, aeration blowers, oxygen/temperature control systems, and a cover handling system. Feedstocks will be placed in open “bunkers” and covered with the GORE™ Cover System. Front-end loaders are utilized to load each bunker. Leachate from the CASP is collected via drainage channels and reused to water the piles in a closed loop system. The CASP process takes

approximately 22 days to complete. The primary noise source associated with the CASP system is the blower/fan group that powers the in-floor aeration system. The CASP system will operate 24-hours per day.

AD's: Zero Waste Energy's (ZWE) SmartFerm® Anaerobic Digester (AD) systems will be installed to compost green and food materials within a state-of-the-art dry system for organic waste processing in a non-continuous "batch" process. Feedstocks will be placed into the AD chambers using front-end loaders, where microorganisms will decompose the material into useable compost within a completely enclosed system. In addition to compost, the system also collects produced biogas which can then be converted to compressed natural gas (CNG) and used to fuel an internal combustion combined heat and power (CHP) engine which will generate electrical power that will be used to serve the parasitic loads of the system and supporting facility operations. Microorganism percolate is applied to the feedstocks to promote decomposition then collected and reused within a close loop system. Each AD batch takes approximately 21 days total to process. The primary noise source associated with the AD system is the internal combustion engine and exhaust, which are part of the biogas collection system. All four (4) proposed AD units will connect to a single CHP engine located on the utility pad on the southern portion of the Facility (Figure 3, Appendix A). The AD units will operate 24-hours per day.

Table 1 compares the operation hours of the existing compost operation in Santa Paula to the proposed Project. The existing 15-acre Limoneira/Agromin Agricultural Composting Operation currently employs 11 full-time employees while the proposed Facility is expected to employ approximately 52 employees.

Table 1 Facility Operating Hours

Operation/Activity	Existing Santa Paula Operations (Limoneira/Agromin Agricultural Composting Operation)		Proposed Operations (Commercial Organics Processing Operation)	
	Days of the Week	Hours of Operation	Days of the Week	Hours of Operation
Waste Receiving	Mon. – Fri.	6:00 AM – 6:00 PM	Mon. – Sat.	7:00 AM – 5:00 PM
Outdoor Processing	Mon. – Fri.	6:00 AM – 6:00 PM	Mon. – Sun.	6:00 AM – 6:00 PM
Material Processing Buildings ¹	---	---	Mon. – Sun.	6:00 AM – 10:00 PM
Packaging ¹	---	---	Mon. – Sat.	6:00 AM – 10:00 PM
Maintenance	---	---	Mon. – Sat.	7:00 AM – 5:00 PM
Office	---	---	Mon. – Fri.	7:00 AM – 5:00 PM

1 – Material Processing & Packaging operations will occur indoors within enclosed structures (Figure 3, Appendix A).

Existing facility operations (i.e. Limoneira/Agromin Agricultural Composting Operation) are considered baseline for this NIA. The primary modification proposed by this Project from a noise perspective is the expansion of outdoor open windrow composting operations as well as implementation of the CASP and AD processes. The following noise generating equipment is expected to be utilized outdoors at the Facility:

Outdoor Processing (i.e. open windrows)

- Chippers/Grinders
- Trommel Screens
- Loaders/Excavators/Backhoes
- Water/Dump Trucks
- Pile Turners
- Forklifts

Covered Aerated Static Piles (CASP)

- Blower/Fan Group

Anaerobic Digesters (AD)

- Internal Combustion Engine Exhaust

2.2 Project Construction

Facility construction is expected to begin in early 2019, following Project approval. The existing 15-acre Limoneira/Agromin Agricultural Composting Operation will be significantly expanded to accommodate the new Facility structures and organics processing operations. Primary construction activities include removal of existing vegetation and agricultural fields, minor grading of the site, installation of building foundations and utilities, construction of the buildings and retention basins, paving and installation of processing equipment. Construction equipment anticipated to be utilized includes graders, excavators, dozers, backhoes, front-end/skid steer loaders, and dump trucks. Based on estimates provided by Agromin, the entire construction phase is anticipated to last approximately 8 months. Specifically the following construction activities and schedules are included in this analysis:

- **Demolition (14 Days):** Approximately 55 acres of the Project site is currently active orchards and row crops, which will need to be removed to accommodate the expanded Project. Portions of the existing 15-acre compost facility will also need to be demolished/cleared.
- **Site Preparation (21 Days):** Following clearing of existing agricultural fields/vegetation, construction materials and equipment will be brought onsite. Existing compost equipment and areas not demolished will be temporarily relocated to allow for the construction of the new Facility structures and compost working surfaces.
- **Grading (28 Days):** The Project area is nearly flat, however minor grading will be required across the entire 70-acre site to establish final grade. Additionally, two (2) retention basins will be excavated along the south boundary of the Facility. A system of underground storm drains connecting to the basins will also be trenched throughout the Facility during the grading phase.
- **Building Construction (90 Days):** The Dry Organics and Wet Organics Buildings, Facilities Administration Building, Production Building (i.e. Packaging Building), and Maintenance Building will be constructed. Working surfaces for windrow composting areas as well as the CASP, AD systems, and utility pad are expected to be installed during this construction phase. This phase will also entail treating of the native soil with cement in the open windrow composting areas. Ancillary equipment such as the scale house, staging pads and tipping areas, as well as utility structures (e.g. utility pad and transformers) will also be installed during the building phase.
- **Architectural Coatings (60 Days):** Following construction of the buildings, painting and finishing of surfaces will occur. Portions of architectural coatings phase may occur concurrently with the building and paving construction phases.
- **Paving (21 Days):** A large portion of the site will be paved with either cement or asphalt concrete to accommodate vehicle and equipment operations. Parking spaces for employees and visitors will be installed adjacent to the scale house near the facilities administration and maintenance buildings. The paving phase may occur concurrently with the building and architectural coatings phases.

Construction activities that generate noise will be confined to daytime hours only, as defined by Ventura County's *Construction Noise Threshold Criteria and Control Plan* (7:00 AM-7:00 PM Monday through Friday, 9:00 AM-7:00 PM Weekends/Holidays).

3.0 EXISTING SETTING

The proposed Facility is located approximately 0.2 miles south of California State Route (SR) 126, at the south end of Edwards Ranch Road, in unincorporated Ventura County near the City of Santa Paula (Figure 1, Appendix A). The Facility is located within the Santa Clara River Valley, and the Santa Clara River basin runs east-west approximately 0.3 miles to the south (Figure 2, Appendix A). This section discusses the existing regulatory and environmental setting of the Project.

3.1 Regulatory Setting

This section discusses the Project's regulatory setting, specifically the Ventura County *General Plan Noise Element* (Noise Element), the Ventura County *Initial Study Assessment Guidelines* (CEQA Guidelines), and Ventura County's *Construction Noise Threshold Criteria and Control Plan* (Construction Guidelines).

3.1.1 Ventura County General Plan Noise Element

The Ventura County *General Plan Noise Element* (Noise Element), both in the *Goals, Policies & Programs* section and the *Hazards Appendix*, contains details regarding the recommended methodology for assessment of noise impacts. The Noise Element presents standards for development of new noise-generating uses based on the noise sensitivity of a Project's surroundings. The Noise Element includes specific significance thresholds for daytime (6:00 AM to 7:00 PM), evening (7:00 PM to 10:00 PM), and nighttime (10:00 PM to 6:00 AM) hours. The thresholds are applicable only to sensitive receptors, which are defined as "dwellings, schools, hospitals, nursing homes, churches, and libraries" within the Noise Element. A copy of the relevant text is included in Appendix B.

3.1.2 Ventura County Initial Study Assessment Guidelines

The Ventura County *Initial Study Assessment Guidelines* (CEQA Guidelines) presents methodologies for measuring noise levels and determining if noise impacts are significant. Significance thresholds depend on ambient noise levels in the area of the project during each of the defined time periods (i.e. daytime, evening, and nighttime). If the ambient levels are lower than the thresholds, the "fixed" thresholds are utilized. If ambient levels are greater than the fixed thresholds, the "ambient level +3 decibels (dB)" is utilized. The CEQA Guidelines reflect the standards established by the General Plan Noise Element. Please note, the standards and thresholds presented in the Noise Element and CEQA Guidelines do not apply to construction noise. Per the CEQA Guidelines, "construction noise impacts shall be evaluated using the assessment methodology, criteria, and reporting procedures provided in the Construction Noise Threshold Criteria and Control Plan" outlined in Section 3.1.3 below.

3.1.3 Construction Noise Threshold Criteria and Control Plan

The Ventura County *Construction Noise Threshold Criteria and Control Plan* (Construction Guidelines) present methodologies for quantification of construction noise impacts, default noise level assumptions for common construction equipment, mitigated equipment noise levels, and construction noise threshold criteria. This NIA utilizes the methodologies presented in the Construction Guidelines to quantify the expected Project construction phase impacts and determine if construction noise impacts would be significant. Mitigation measures presented in the Construction Guidelines could also be utilized for instances where construction noise impacts are above applicable significance thresholds.

3.1.4 Definitions

The following terms are employed in this NIA:

- **Decibel (dB):** A unit division, on a logarithmic scale, whose base is the tenth root of ten, used to represent ratios of quantities proportional to power. In simple terms, if the power is multiplied by a factor of ten,

then ten is added to the representation of the power on the decibel scale. If 0 dB represents 1 unit of power, 30 dB represents one thousand units, 60 dB represents one million units, etc.

- **A-Weighted Sound Level (dBA):** Sound pressure level measured using the A-weighting network, a filter which discriminates against low and very high frequencies in a manner similar to the human hearing mechanism at moderate sound levels. The A-weighted sound level is generally used when discussing environmental noise impacts.
- **Equivalent Continuous Noise Level (L_{eq}):** The noise level, in decibels, of the mean sound pressure averaged over a time period, generally one hour. This is often referred to as the "equivalent sound level" (hence the "eq" subscript). The "equivalence" is a sound of constant level that has the same total acoustic energy content as the measurement.
- **Ambient (i.e. Background) Noise Level:** The current noise level in the vicinity of the proposed Project that results from the combination of all sources, near and far. Please note that ambient noise measurements presented in this NIA include existing noise generated at the 15-acre Limoneira/Agromin Agricultural Composting Operation (see Section 3.2.3).
- **Community Noise Equivalent Level (CNEL – dBA):** The long-term time average sound level, weighted as follows (note that the daytime/evening/nighttime time periods for CNEL are different than the daytime/evening/nighttime timeframes in the Ventura County thresholds of significance):
 - Frequency response is filtered using the A-weighting network.
 - Daytime noise (7:00 AM to 7:00 PM) is not weighted.
 - Evening noise (7:00 PM and 10:00 PM) is weighted by +5 dB.
 - Nighttime noise (10:00 PM and 7:00 AM) is weighted by +10 dB.
- **Sound Pressure Level (SPL):** The logarithmic measure of the power of a sound relative to a reference value, measured in dB. The sound pressure level is always associated with a specific location or distance from a sound source.
- **Sound Power Level (SWL):** The acoustical energy emitted by the sound source. The SWL is an absolute value that is not affected by the environment, unlike SPL.

3.2 Environmental Setting

This section describes the noise environment and existing noise sources in and around the Project site, the receptors of concern near the Facility and along the Project haul routes, as well as the ambient noise levels in these areas. For this Project, the existing setting and ambient noise levels include current operations at the 15-acre Limoneira/Agromin Agricultural Composting Operation located at the Project site.

3.2.1 Regional Setting

The Facility is located in a rural area of unincorporated Ventura County, California, south of the City of Santa Paula. It is surrounded primarily by agricultural and open space land uses. The Ventura County General Plan does not identify any other noise generating land uses in the immediate vicinity of the Project site. The surrounding environment is characterized primarily by agricultural operations, rural dwellings, and small urban centers located in Ventura approximately 1.25 miles away to the southwest. Sources of noise in the region are typical for such rural areas, generally associated with agricultural production, traffic noise from nearby roadways (SR 126, Telegraph Road), occasional aircraft over-flights, and urban activities from the nearby communities. The closest airport/airstrip is the Santa Paula Airport located approximately 4.25 miles away to the northeast, and has no appreciable influence on noise levels near the Facility.

Existing noise sources near Facility Receptors 1, 2, and 3 (R1, R2, and R3) include equipment noise from existing compost operations (i.e. Limoneira/Agromin Agricultural Composting Operation), nearby Limoneria agricultural activities, traffic noise from roadways (SR 126, Edwards Ranch Road), occasional aircraft over-flights, and natural sounds (wind, plants rustling, birds/insects, etc.). See Figure 2 (Appendix A) which shows the locations of Facility receptors.

Existing noise sources near Project haul route Receptors 4, 5, 6, 7, 8, and 9 (R4, R5, R6, R7, R8, and R9) include cars on adjacent roadways (SR 126, Telegraph Road, Briggs Road Wells Road), nearby agricultural activities, occasional aircraft over-flights, and urban activities from the nearby communities of Santa Paula and Ventura. Existing compost operation noise from the Limoneira/Agromin Agricultural Composting Operation was not audible in the areas around the haul route receptors (R4, R5, R6, R7, R8, and R9). The large distance between this source and receptors was noted to attenuate the existing facility noise to the point that it was not audible during a January 31st, 2017 site visit. As such, onsite operations at the new 70-acre Facility are also not expected to generate noise impacts to haul route receptors. See Figure 4 (Appendix A) which shows the locations of haul route receptors.

Existing compost operations, both industrial (i.e. onsite) and traffic, are included in the baseline noise sources. The incremental increase in noise levels from the Project is analyzed within this NIA.

3.2.2 Receptors

In the CEQA Guidelines, noise sensitive receptors are defined as “dwellings, schools, hospitals, nursing homes, churches and libraries.” The receptors considered in this NIA, all of which are residential dwellings, are described below. The closest relevant receptor in each direction from the Facility and along the proposed Project haul routes were included. Furthermore, measurements at these closest receptors conservatively account for potentially-affected receptors at locations farther from the Project noise sources. When appropriate, receptors are grouped together and the noise impact at the worst-case portion of the group is determined. See Figure 2 and Figure 4 in Appendix A for the locations of the Facility and haul route receptors respectively.

- **Receptor 1 (R1)** is the residential dwelling located to the southwest of the Project site. This residence and the surrounding property are owned by Limoneria and leased out to farm workers employed in their nearby agricultural fields.
- **Receptor 2 (R2)** is the residential dwelling located immediately south of the Project site. This small residence and the surrounding property are owned by Limoneria and leased out to farm workers employed in their nearby agricultural fields.
- **Receptor 3 (R3)** is the residential dwelling located to the southeast of the Project site. This residence and the surrounding property is owned by Limoneria and leased out to farm workers employed in their nearby agricultural fields.
- **Receptor 4 (R4)** is the Briggs School located at the southeast corner of Briggs Road and Telegraph Road intersection, along the proposed Project haul route. This school serves elementary and middle school children (K-8).
- **Receptor 5 (R5)** is the privately-owned residential dwelling located to the southwest corner of the Todd Road and Telegraph Road intersection, along the proposed Project haul route. Noise impacts at this receptor are meant to represent worst-case impacts for other residences along this portion of the Project haul route.
- **Receptor 6 (R6)** is the privately-owned residential dwelling located to the southeast of the Telegraph Road and Edwards Ranch Road intersection, along the proposed Project haul route. Noise impacts at this

receptor are meant to represent worst-case impacts for other residences along this portion of the Project haul route.

- **Receptor 7 (R7)** is the privately-owned residential dwelling located to the northeast of the Telegraph Road and Edwards Ranch Road intersection, along the proposed Project haul route. Noise impacts at this receptor are meant to represent worst-case impacts for other residences along this portion of the Project haul route.
- **Receptor 8 (R8)** collectively represents the group of residences southeast of the Telegraph Road and Wells Road intersection, along the proposed Project haul route. The residence within this housing tract nearest to this intersection, specifically located at the north end of Camelia Way, was assessed. Noise impacts at this receptor are meant to represent worst-case impacts for other residences along this portion of the Project haul route. Please note that an approximately 4-foot wall exists between this group of receptors and Telegraph Road (Figures 6 & 7, Appendix A).
- **Receptor 9 (R9)** is the Palms at Bonaventure Assisted Living & Memory Care facility northwest of the Telegraph Road and Wells Road intersection, along the proposed Project haul route. Noise impacts at this receptor are meant to represent worst-case impacts for other residences along this portion of the Project haul route.

3.2.3 Local Noise Environment

The existing ambient noise environment is consistent with that of typical rural/semi-urban areas, and consists primarily of equipment operating at the 15-acre compost facility (front-end loaders, grinders, screens), nearby local roadway and freeway traffic noise (SR 126, Telegraph Road, Wells Road, small dirt roads), agricultural production equipment, and of natural sounds (wind, birds, insects, etc.).

To quantify the existing ambient noise environment experienced by Facility receptors closest to the Project site, three (3) short-duration (15-minute) measurements and one (1) long-duration (24-hour) reference noise measurement were conducted at four (4) locations surrounding the Project site on July 22nd and 23rd, 2014 (Figure 2, Appendix A). The noise measurements were recorded using two (2) Quest DL SoundPro, Type 2 noise meters (Serial #'s BGI04008, BIJ090010). Noise meters were programmed in "slow" mode, in "A" weighted form, and logging every minute for the long-duration measurement and 10 seconds for the short-duration measurements. The microphones were equipped with a windscreen during measurements, and noise meters were calibrated using two (2) Quest QC-10 calibrators (Serial #'s QIB070141, QIJ090052) prior to, and following each, measurement taken. The noise meters and calibrators were calibrated by Engineering Dynamics, Inc., who provided Certificates of Compliance and Calibration for each piece of equipment.

Noise sensitive receptors are defined as "dwellings, schools, hospitals, nursing homes, churches, and libraries." within the CEQA Guidelines. As they are separated by considerable distances, and they experience different types of noise from the Project, receptors near the Facility and receptors near the Project haul route are addressed separately in this NIA. The locations of the noise measurements and the corresponding Facility receptors are shown on Figure 2 (Appendix A). Haul route receptors are shown on Figure 4 (Appendix A). The long-duration (24-hour) measurement does not represent a receptor, but rather is utilized as a reference measurement to quantify the daytime, evening, and nighttime noise levels at the other receptor locations where only short-duration measurements were collected. The details of these calculations are presented in Appendix C.

Table 2 presents the existing ambient noise levels at the receptors in the Project site vicinity, which are based on ambient noise measurements taken on July 22nd and 23rd, 2014. Although these measurements were collected over 2 years ago, site conditions and operations have not changed during this timeframe and these measurements remain a valid characterization of the current existing background noise environment surrounding the Facility.

Noise from the existing 15-acre Limoneira/Agromin Agricultural Composting Operation are included in the ambient noise levels as the site was operating while the measurements were taken. Noise measurement logs and additional information regarding the background noise level determination are included in Appendix C. Facility monitoring locations are illustrated on Figure 2 (Appendix A).

Table 2 Ambient Noise in Facility Vicinity (L_{max} 1-hour)

Receptor	Receptor Type	Peak Day Hour (dBA)	Peak Evening Hour (dBA)	Peak Night Hour (dBA)
R1 (Southwest)	Residence	58.2	46.7	52.5
R2 (South)	Residence	52.8	41.3	47.1
R3 (Southeast)	Residence	50.4	38.9	44.7

Daytime = 6:00AM-7:00PM, Evening = 7:00PM-10:00PM, Nighttime = 10:00PM-6:00AM.

When considering a straight road segment, the noise levels are symmetrical on each side of the road and the same at any specified distance along the road (except near the ends of the road segment). For this reason, the nearest receptor to the road can be selected to represent noise impacts for a group of receptors (e.g. housing tract). In this NIA, one (1) receptor is selected for each group of residences located near a unique portion of the haul road geometry. These receptors represent the worst-case impact for all receptors in that grouping. Figure 4 (Appendix A) shows the locations of the haul route receptors assessed.

Table 3 presents the existing background noise levels at representative receptors along the Project’s haul routes. These noise levels were determined using a computer noise propagation model called SoundPLAN Essential 3.0, with existing traffic data collected by Associated Traffic Engineers (ATE) and provided by Agromin. SoundPLAN Essential utilizes the same methods as the Federal Highway Administration’s *Traffic Noise Model* to calculate noise impacts from traffic. See Sections 6.3 and 6.4 as well as Appendix G for additional information regarding this approach. Figure 6 (Appendix A) displays the results of the baseline traffic noise model.

Table 3 Background Noise in Project Haul Route Vicinity (L_{eq} 1-hour)

Receptor	Nearby Haul Route Segments	Predicted Ambient Noise Level (dBA)
R4	Telegraph Road, Briggs Road, Santa Paula side streets	49.1
R5	Telegraph Road	55.8
R6	Telegraph Road, Edwards Ranch Road, Olive Road	57.0
R7	Telegraph Road, Edwards Ranch Road, Olive Road	49.7
R8	Telegraph Road, Wells Road	58.9
R9	Telegraph Road, Wells Road, Ventura side streets	56.8

4.0 SIGNIFICANCE THRESHOLDS

As discussed in Section 3.1, the CEQA Guidelines recommend that the General Plan noise standards be used as the significance thresholds for noise impacts. The General Plan noise standards applied to this Project are the following:

- (1) *Noise sensitive uses proposed to be located near highways, truck routes, heavy industrial activities and other relatively continuous noise sources shall incorporate noise control measures so that:*
 - a. *Indoor noise levels in habitable rooms do not exceed CNEL 45.*
 - b. *Outdoor noise levels do not exceed CNEL 60 or Leq1H of 65 dB(A) during any hour.*

- (4) *Noise generators, proposed to be located near any noise sensitive use, shall incorporate noise control measures so that ongoing outdoor noise levels received by the noise sensitive receptor, measured at the exterior wall of the building, does not exceed any of the following standards:*
 - a. *Leq1H of 55 dB(A) or background noise level plus 3dB(A), whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.*
 - b. *Leq1H of 50 dB(A) or background noise level plus 3dB(A), whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.*
 - c. *Leq1H of 45 dB(A) or background noise level plus 3dB(A), whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m.*

Part (1) of this standard is primarily intended to be applied to proposed receptors located next to existing noise sources (i.e. roads, railroads). However, this standard may also appropriately be applied to projects that cause traffic noise impacts to existing receptors. Because both existing and Project vehicle traffic occur during daytime hours only when the respective facilities are operating (sunrise-sunset), the Leq(1H) standard in Part (1) is more appropriate than the CNEL standard which assesses noise impacts over a 24-hour period. Similarly, the Leq(1H) standards in Part (4) are more appropriate for the inconsistent noises generated by industrial sources.

For this reason, to assess the Project's operational noise impacts, the Leq(1H) threshold presented in Part (1) is applied to receptors located near the Project haul route (R4 through R9) and the daytime, evening, and nighttime thresholds presented in Part (4) are applied to receptors located near the Facility (R1 through R3). This approach is consistent with environmental documents prepared for previous Ventura County development projects.

In general, noise level changes of less than 3 dBA are not perceptible. It is for this reason 3+ dBA is commonly considered a "substantial increase" for the purposes of environmental noise assessment. This concept is used in Part (4) of the standard to account for receptors where the background noise exceeds the specified "fixed" standard. In this case, a Project is considered significant if it increases the noise level at a receptor by 3+ dBA or more. Similarly, because Part (1) of the standard is being applied to existing haul route receptors in this NIA, ambient plus 3+ dBA is also considered the significance threshold for Part (1) when the background noise levels exceed the specified standard. These noise standards are summarized in Table 4.

Table 4 General Plan Noise Standards

Time Period	Hours	Industrial Source Threshold	Traffic Source Threshold
Daytime	6:00 AM – 7:00 PM	$L_{eq}(1hr)$: 55 or ambient +3 dBA	$L_{eq}(1hr)$: 65 or ambient +3 dBA
Evening	7:00 PM – 10:00 PM	$L_{eq}(1hr)$: 50 or ambient +3 dBA	
Nighttime	10:00 PM – 6:00 AM	$L_{eq}(1hr)$: 45 or ambient +3 dBA	

As described above, the significance threshold for each receptor is based on whether it is located near the Project haul route or the Facility, as well as the existing ambient noise level at that receptor. Table 5 presents the significance thresholds for each of the receptors considered in this NIA, adjusted to encompass the ambient noise level presented in Table 2 (see Section 3.2.3). As no proposed Project haul truck traffic will occur during the evening (7:00 PM-10:00 PM) or nighttime (10:00 PM-6:00 AM) hours, only the daytime significance threshold for traffic is presented in Table 5. These thresholds are utilized to determine the significance of operational noise impacts resulting from the Project. See Appendix C for more information regarding the background noise levels from which these thresholds were determined.

Table 5 Project Operation Significance Thresholds (dBA)

Time Period	R1	R2	R3	R4	R5	R6	R7	R8	R9
	Industrial – $L_{eq}(1hr)$			Traffic – $L_{eq}(1hr)$					
Daytime	55.0	55.0	55.0	65.0	65.0	65.0	65.0	65.0	65.0
Evening	50.0	50.0	50.0	---	---	---	---	---	---
Nighttime	48.1	45.0	45.0	---	---	---	---	---	---

The Ventura County Construction Guidelines include noise threshold criteria that are based on the duration and hour of construction activities as well as the types of receptors affected by construction. As discussed previously, construction activities will be restricted to daytime hours (7:00 AM-7:00 PM) only. The closest relevant receptors in each direction from the Facility (i.e., R1, R2, and R3) that will be potentially impacted by Project construction noise are all “single-family and multi-family dwellings (residential)” as defined in the County’s Construction Guidelines. Because the Project will generate construction noise during the daytime hours only and the affected receptors are residential dwellings, the Project is not required to adhere to any specific standard/threshold. County guidance clearly states that the construction daytime noise criteria “*only apply to the noise-sensitive receptors that are sensitive to noise impacts during the daytime*”. Therefore, so long as Project construction activities occur during daytime hours only, Ventura County significance criteria would not apply. However, noise levels at Facility receptors due to Project construction activities have been quantified and disclosed for informational purposes in Section 5.0.

5.0 PROJECT CONSTRUCTION IMPACTS

Noise levels associated with Project construction were quantified according to the methodologies in the Ventura County *Construction Noise Threshold Criteria and Control Plan* (Appendix B). The following assumptions are utilized to determine noise impacts resulting from construction activities:

- Equipment List:** The equipment list required for construction of the Facility has been provided by Agromin. This list was broken down into construction phases based on assumptions in the South Coast Air Quality Management District’s *CalEEMod* program (v. 2016.3.1) and *RS Means Heavy Construction Cost Data* defaults, adjusted for the size and scope of the proposed construction activities. Conservatively, each type of noise-generating equipment per construction phase is assumed to be operating simultaneously to determine worst-case noise impacts to nearby receptors.
- Equipment (L_{eq}) Noise Level:** The noise levels (L_{eq}) associated with the construction equipment are based on the default assumptions presented in Ventura County’s *Construction Noise Threshold Criteria and Control Plan* and the Federal Highway Administration’s (FHWA) *Roadway Construction Noise Model*. Agromin has committed to utilizing or purchasing new equipment for Facility operations. It is assumed that construction equipment use will also be relatively new. New equipment is expected to incorporate modern noise-controls (upgraded mufflers, acoustical engine lining, etc.) by design. As such, the mitigated L_{eq} equipment noise levels presented in Figure A-4/Appendix A of the *Construction Noise Threshold Criteria and Control Plan* are utilized to determine construction noise levels. These equipment noise levels represent “estimated level obtainable by quieter methods or equipment and implementing feasible noise controls.”
- Distance to Receptor:** The distances from the Facility receptors (R1, R2 and R3) to the closest construction activity was approximated using Google Earth.
- Equipment Usage:** The percent usage of each piece of equipment is estimated based on the defaults in Ventura County’s *Construction Noise Threshold Criteria and Control Plan* and FHWA’s *Roadway Construction Noise Model*. Equipment usage was adjusted to accurately reflect the scope of construction activities.
- Construction Hours:** Per information provided by Agromin, construction activities will be restricted to daytime hours (7:00 AM-7:00 PM) only as defined in Ventura County Construction Guidance.

Table 6 presents the estimated construction noise levels at the Facility receptors (R1, R2, R3) based on the above assumptions. All other noise sensitive receptors are expected to experience lower construction noise levels than those presented in Table 6. Note that the noise levels from the construction phase with the highest expected noise impacts (i.e. grading) are presented below. To ensure Project noise levels are less than significant and consistent with Ventura County Construction Guideline standards, Section 7.1 presents recommended mitigation measures. Also see Appendix E for the full construction noise impact calculations and the results for each construction phase not shown in Table 6.

Table 6 Project Construction Noise Levels (dBA)

Parameter	Receptor 1 (R1)		Receptor 2 (R2)		Receptor 3 (R3)	
	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
Construction Noise Impact	54.1	63.0	66.1	75.0	58.7	67.6

Note: Noises impacts shown above were calculated for the grading construction phase, which represents the construction phase with the highest expected noise impacts. See Appendix E.

6.0 PROJECT OPERATIONAL IMPACTS

This section discusses the inputs, methodologies, and the results of the noise models used to predict Project noise impacts to nearby receptors. Specifically, noise impacts resulting from Facility operations (i.e. onsite sources) and Project vehicle traffic on nearby haul routes are assessed.

6.1 Industrial Noise Source Characterization

Industrial noise sources include stationary and mobile equipment operating onsite. This NIA utilizes a combination of noise measurements and documented noise source information to determine the noise level of the proposed industrial operations. For sources of noise currently in operation at the Oxnard-Shoreline facility, monitoring was utilized to determine the actual noise level these operations generate. For new sources of noise proposed by the Project (e.g. CASP and AD systems), information provided by the equipment manufactures was used to determine the noise levels these sources are expected to generate.

Noise measurements were collected at Agromin’s existing Oxnard-Shoreline facility on July 23rd, 2014 in order to characterize the noise level of equipment operations (Appendix D). Operations occurring at the 11-acre Oxnard-Shoreline facility include feedstock receiving and sorting, pre-processing using grinders and trommel screens, green material composting in open windrows, food material composting using a small Covered Aerated Static Pile (CASP) pilot program, as well as bagging and bulk sales activities. These existing operations at the Oxnard-Shoreline facility (e.g. windrow composting, pre-processing and grinding, bagging and bulk sales, mobile and stationary processing equipment, etc.) are similar to the open windrow and general support operations proposed for the new Facility. As such, the noise measurements collected at Oxnard-Shoreline are utilized to represent noise generated from open windrow composting operations and the general support activities at the new Facility. To more accurately reflect the expanded operations at the new Facility, the Oxnard-Shoreline source noise level was scaled upward based on comparison of the total yearly throughputs from this existing facility and the proposed Project (Appendix D). This assumes the quantity of operating and support equipment, increases proportionally with throughput.

The expected noise levels generated by the CASP and AD systems were determined based on documented noise information provided by the equipment manufacturers. Based on manufacturer guidance, the two (2) aeration fans in the CASP systems are the primary noise source associated with CASP operation. Zero Waste Energy (ZWE) confirmed the primary noise component of their SMARTFERM[®] AD system is the exhaust outlet from the internal combustion engine. Both manufacturers provided measured noise data for each piece of equipment, and this was utilized to model their noise impacts to nearby receptors. See Appendix F for the source noise data and calculations.

Table 7 below shows the industrial noise source data utilized to model noise levels generated by Facility operations. Additional information regarding these calculations and the referenced documents are included in Appendix F.

Table 7 Facility Noise Source Data

Noise Source	Description	Source Type	L _{eq} @ 50' (dBA)	Basis
Windrow Processing & Ancillary/Support Activities	Off-Road Equipment, On-Road Equipment, Portable Equipment, Onsite Vehicles	Area	89.0	Oxnard-Shoreline Facility Source Measurements
CASP System	Blower/Fan Group	Point	67.0	Manufacturer Information

Noise Source	Description	Source Type	L _{eq} @ 50' (dBA)	Basis
AD System	Internal Combustion Engine & Exhaust	Point	61.3	Manufacturer Information

6.2 Industrial Noise Impact Calculation Methodology

Using the source data shown in Table 7, SoundPLAN Essential 3.0 computer noise model software was utilized to determine the expected noise impacts to nearby receptors from Facility operations. Source-receptor geometry, noise source data, terrain information, and noise obstructions (e.g., buildings) were input into the model. SoundPLAN models industrial noise impacts at receptors based on the International Organization for Standardization's (ISO) "ISO 9613-2" standard for calculating outdoor sound propagation. Figure 5 (Appendix A) shows the modeled source-receptor geometry. The model output files are included in Appendix F.

The following assumptions were utilized in the industrial source model:

- Specific noise sources (i.e. CASP, AD) were modeled as point sources in the appropriate locations. Open windrow composting and ancillary/support equipment noise sources (i.e. adjusted Oxnard-Shoreline measurements) were modeled as areas sources within the compost working areas. See Figure 3 and Figure 5 (Appendix A) which display the locations of these modeled noise sources.
- Because the area is relatively flat, terrain elevations were not included within the model.
- All of the sources were conservatively assumed to operate simultaneously during the day, evening, and night peak hours. Please note, waste receiving, outdoor process, maintenance and office activities will occur during daytime hours (sunrise to sunset) only. Indoor operations, specifically processing and packaging operations, may occur during the daytime or evening (7:00 PM-10:00 PM) hours. However these evening operations will occur indoors only, and therefore are not expected to generate noise impacts at Facility receptors. The CASP and AD systems will operate 24-hours per day. No other nighttime operations are proposed at the Facility.
- The following reference noise spectrums from the SoundPLAN Essential 3.0 database were utilized. The centrifugal blower spectrum was utilized for the CASP, the axial fan was utilized for the AD system, and the averaged industrial spectrum (this spectrum is the average of about 150 industrial sources, such as compressors, fans, and coolers) was utilized for the open windrow and ancillary/support activities.
- The Facility's five (5) large buildings were included in the model as permanent noise obstructions. While a large portion of the site will usually be covered by the windrow piles of organic material (around 12-feet tall), it is not possible to predict the exact quantity and location of the piles. Due to their unpredictable and transient nature, these piles were not included in the model. This is a conservative assumption because in reality the piles will cause a reduction in noise by acting as earthen berm barriers.
- The surrounding orchards, specifically near R1, were included in the model as a foliage-type ground absorption attenuation area. The row of windbreak trees (approximately 30-feet high) that runs along the eastern Facility boundary, adjacent to R3, was also included as a volume attenuation area. These areas provide a very small amount of added attenuation as noise propagates through them.

6.2.1 Industrial Noise Impact Results

Table 8 presents the results of the industrial source noise prediction model for the receptors near the Facility (R1, R2 and R3). The modeled noise impacts at each receptor are compared to the applicable significance threshold. Modeling files presented in Appendix F and results displayed on Figure 5 (Appendix A) present the noise impacts generated by these industrial sources. Note that all impacts are below the applicable Ventura County significance threshold.

Table 8 Industrial Noise Source Impacts (L_{eq}-Hr dBA)

Parameter	Receptor 1 (R1)			Receptor 2 (R2)			Receptor 3 (R3)		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Baseline Noise	51.8	43.0	45.1	46.4	37.6	39.7	44.0	35.2	37.3
Project Noise	24.9	0.0	0.0	30.7	17.0	17.0	23.0	7.1	7.1
Total Noise	51.9	43.0	45.1	46.6	37.6	39.7	44.1	35.2	37.3
Threshold	55.0	50.0	48.1	55.0	50.0	45.0	55.0	50.0	45.0
Significant?	No	No	No	No	No	No	No	No	No

6.3 Traffic Noise Source Characterization

Prediction of noise impacts from Project traffic sources is addressed in this section. Project traffic noise will result from collection and delivery haul trucks as well as employee vehicles on nearby roadways. Specifically, traffic noise impacts were modeled on affected road segments of Edwards Ranch Road, Telegraph Road, Olive Road, Briggs Road, Wells Road, and side street traffic originating from the nearby cities of Ventura and Santa Paula.

Baseline traffic data for the existing Limoneira/Agromin Agricultural Composting Operation was provided by Agromin, and represents the actual vehicle ticket counts from the 2014 operational year. The expected vehicle trips associated with the Project were estimated by scaling up the baseline trips to reflect the expanded operations and processing capacity of the new Facility. Based on existing operations as well as those proposed for the Project, Agromin estimated that the peak hour for existing and Project vehicle activity on roadways would be between 10:00 AM-11:00 AM. Existing daily traffic volumes on Telegraph Road and Edwards Ranch Road, unrelated to Agromin’s existing compost operation, were taken from the *Traffic Study* completed by Associated Traffic Engineers (ATE) for the Project. These existing traffic volumes are based on actual measurements collected by ATE on 1/21/2016 on Telegraph Road and Edwards Ranch Road.

Table 9 presents the incremental increase in peak hour traffic volume associated with the Project. These traffic volumes were utilized to model peak hour noise impacts to haul route receptors (R4, R5, R6, R7, R8, and R9) in SoundPLAN Essential.

Table 9 Peak Hour (10:00 AM-11:00 AM) Trips by Vehicle Type

Vehicle Type	Baseline Trips	Project Trips	Increment
Haul Truck (HHD)	13	59	+46
Light-Duty Truck (LDT)	7	46	+39
Passenger (LDA) ^A	2	54	+52
Totals:	22	159	+137

A – Although employees (i.e. passenger vehicles) are not expected to arrive or leave during the peak hour, it is conservatively assumed that 50% of the employee trips will occur during the peak hour. See Appendix G for more detail.

6.4 Traffic Noise Impact Results

In order to determine Project traffic noise impacts, the SoundPLAN Essential 3.0 computer noise model software was utilized. SoundPLAN Essential uses the Federal Highway Administration’s Traffic Noise Model (TNM) algorithm to model traffic noise impacts at chosen receptors. In the TNM, a transportation noise source (e.g. Edwards Ranch Road, Telegraph Road, etc.) is input along with receptor locations to predict the noise levels associated with a specific vehicle trip count.

In order to calibrate the SoundPLAN model to fit the Project’s environment, two (2) 30-minute noise measurements were conducted near haul route road segments and a traffic count was obtained simultaneously. This traffic count was then entered into the model. By comparing the resulting modeled noise level to the actual measured noise level, a correction factor can be determined. In this case, the measured noise levels were an average of 11 dBA below the modeled noise level. Therefore it is appropriate to apply a correction factor of -11 dBA to all of the SoundPLAN Essential haul route modeling results. However, in order to be conservative this correction factor was not utilized. Although it was not utilized, the fact that the correction factor is so large indicates that the model results are highly conservative when compared to reality. See Appendix G for details regarding the SoundPLAN Essential model inputs, methods, and assumptions.

Noise impacts to haul route receptors were modeled for both the existing trips from the Limoneira/Agromin Agricultural Composting Operation (i.e. baseline) and the proposed Project trips. The total incremental noise impacts to each receptor are then compared to the appropriate threshold to determine significance. Figure 6 and Figure 7 (Appendix A) display the results of both the baseline and Project road noise model respectively. Table 10 presents the total noise level for receptors along the Project haul routes. All impacts are below the applicable significance threshold.

Table 10 Total Traffic Noise Level & Significance Determination

Parameter	Daytime $L_{eq}1H$ (dBA)					
	R4	R5	R6	R7	R8	R9
Baseline Noise Level	49.1	55.8	57.0	49.7	58.9	56.8
Project Noise Level	53.5	57.7	61.3	54.8	63.4	62.3
Total Noise Level	54.8	59.9	62.7	56.0	64.7	63.4
Significance Threshold	65.0	65.0	65.0	65.0	65.0	65.0
Significant?	No	No	No	No	No	No

7.0 MITIGATIONS

This section discusses mitigation measures proposed to ensure Project induced noise impact levels are less than significant. Please note, no mitigation is required for operational impacts (traffic or industrial) as these were below the applicable significance thresholds.

7.1 Construction Noise Design Features/Mitigation

As described in Section 5.0, per schedules provided by Agromin, the Project construction phase is anticipated to last approximately 4 to 8 months (16 to 32 weeks), and construction activities that generate noise will be confined to daytime hours only, as defined by Ventura County's Construction Guidelines document (i.e. 7:00 AM – 7:00 PM Monday through Friday, 9:00 AM – 7:00 PM Weekends/Holidays).

While the disclosure of Project daytime construction noise levels, as presented in Table 6, is beneficial for informational purposes, because the Project will generate construction noise during the daytime hours only and the affected receptors are residential dwellings, the Project is not required to adhere to any specific standard/threshold. County guidance clearly states that the construction daytime noise criteria "*only apply to the noise-sensitive receptors that are sensitive to noise impacts during the daytime*". The closest relevant receptors in each direction from the Facility (i.e., R1, R2, and R3) are all residential dwellings. Referring again to the County's guidance document, "*single-family and multi-family dwellings (residential)*" are only considered "*noise-sensitive locations*" during the "*evening/nighttime*" periods (i.e., between 7:00 p.m. – 10:00 p.m. and 10:00 p.m. – 7:00 a.m. respectively). Therefore, so long as Project construction activities occur during daytime hours only, the Project's noise impacts at nearby Facility receptors would be considered less than significant.

Although noise impacts resulting from construction will be temporary, the following mitigation measures are proposed to ensure that Project construction noise is consistent with Ventura County standards. With implementation of these measures, Project construction noise impacts would be less than significant:

NO-1. Construction equipment shall not idle for more than 30 minutes at any one time.

NO-2. Project construction activities shall only occur between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday, and from 9:00 a.m. and 7:00 p.m. Saturday, Sunday and local holidays, as defined in the Ventura County Construction Noise Threshold Criteria and Control Plan (Ventura County, 2010).

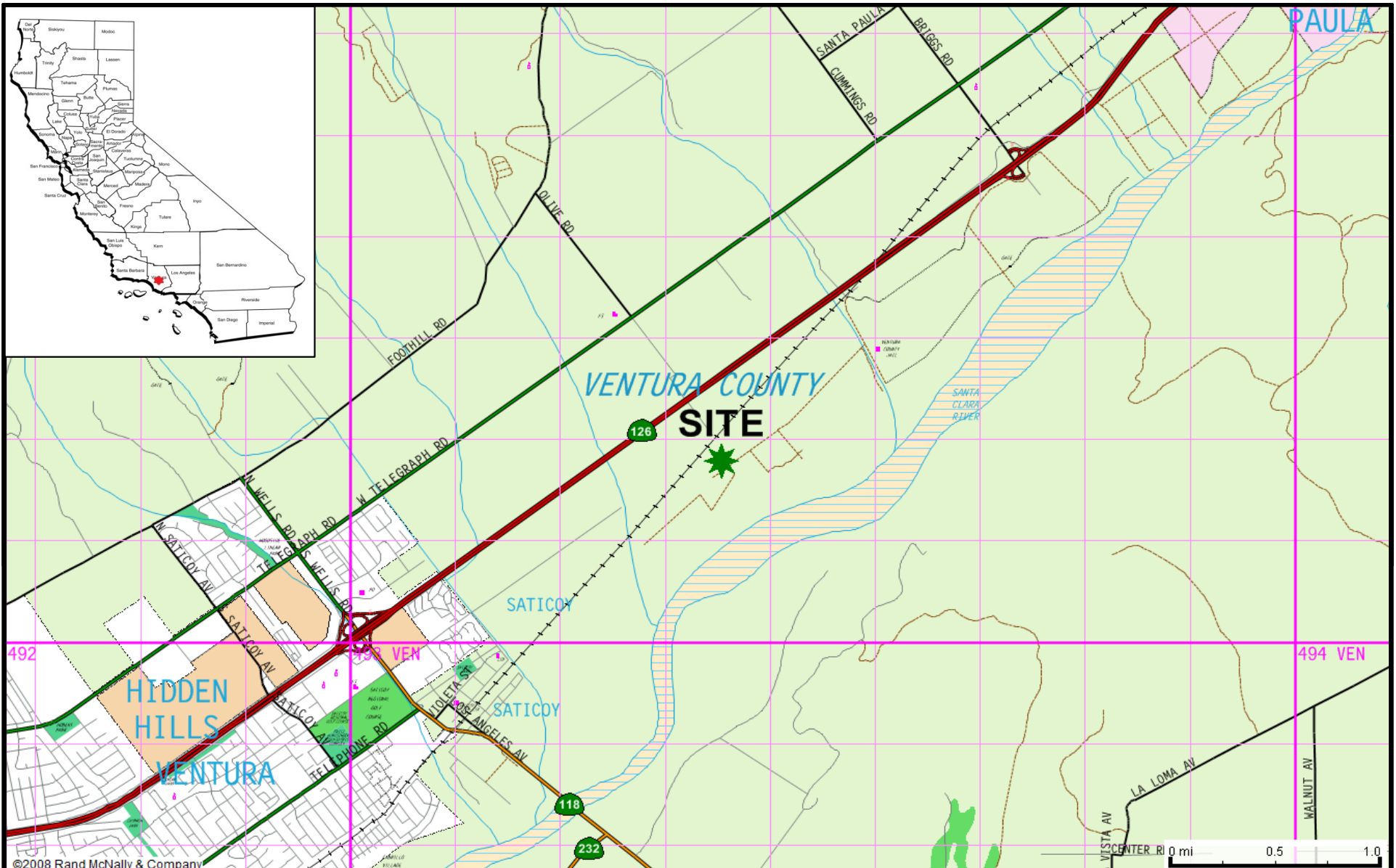
If Project construction activities are required to occur outside the daytime hours defined above, Agromin will conduct a study, including noise measurements, to ensure that the construction noise impacts at nearby receptors are acceptable per Ventura County guidance. If a significant impact is determined, noise reducing modifications (e.g., berms, sound blankets/curtains, walls, equipment/operations modifications, etc.) shall be implemented to reduce the construction noise impacts, and the monitoring will be repeated. This process will continue until sufficient mitigation is provided and the measure noise levels at affected receptors are below applicable Ventura County criteria for construction noise.

Through adherence to the requirements outlined in the Ventura County *Construction Noise Threshold Criteria and Control Plan* and implementation of the revised Mitigation Measure NO-2 described above, the Project's construction noise impacts to nearby receptors would be less than significant with no additional mitigation required. Additionally, the County guidance notes that "*often a construction contractor can avoid most community complaints simply by notifying the potentially affected residents and other sensitive receptors regarding the purpose of the project and the expected completion schedule*" (Ventura County, 2010). If deemed

appropriate by the County, Agromin may notify nearby residents prior to commencing Project construction activities. Furthermore, construction noise impacts will be temporary and the grading phase, the construction phase with the highest noise impacts, is expected to last for only 21 days. Please see Appendix E for the full construction phase noise impact calculations.

APPENDIX A

FIGURES



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 Source: 2008 Rand McNally & Company



FIGURE 1	REGIONAL LOCATION MAP		
	Agromin Commercial Organics Processing Operation Santa Paula, California 93060		
PROJECT #:	AG01.11.02	DATE:	1/7/17
SCALE:	as shown	DRAWN BY:	GPS



Source: Google Earth 2016

- Existing Limoneira/Agromin Compost Facility (15-acres)
- Proposed Facility Boundaries (70-acres)
- - Long-Duration (24-Hours) Noise Monitoring Location
- - Short-Duration (30-Minutes) Noise Monitoring Locations

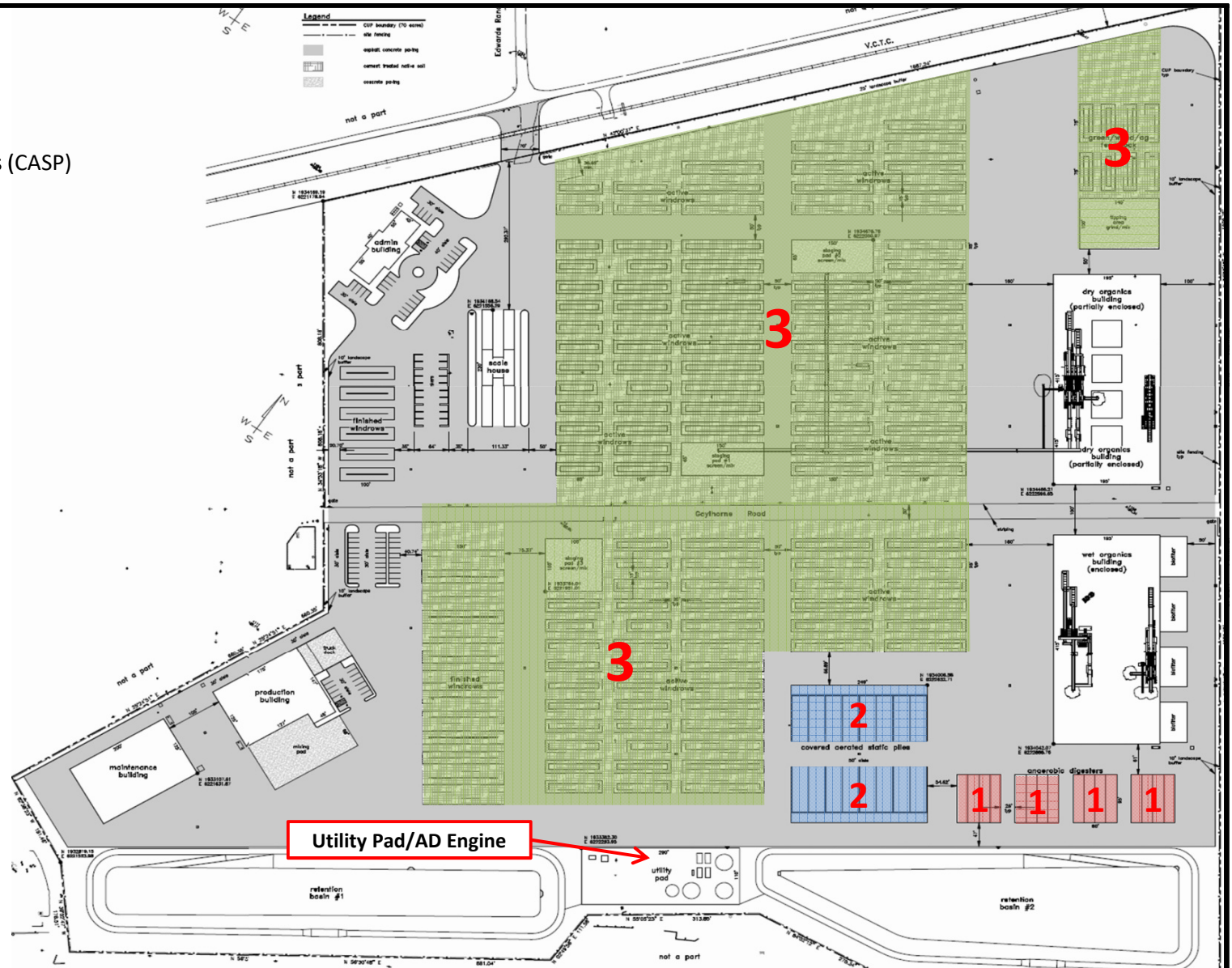


FIGURE 2	MONITORING/RECEPTOR LOCATIONS Agromin Commercial Organics Processing Operation Santa Paula, California 93060		
	PROJECT #:	AG01.11.02	DATE:
SCALE:	as shown	DRAWN BY:	GPS

LEGEND

Noise Source Areas

- 1- Anaerobic Digesters (AD)
- 2- Covered Aerated Static Piles (CASP)
- 3- Open Windrow Composting



Source: Agromin/E.J. Harrison



SESPE
CONSULTING, INC.

FIGURE
3

FACILITY SITE PLAN
Agromin Commercial Organics Processing
Operation
Santa Paula, California 93060

PROJECT #:	AG01.11.02	DATE:	1/7/17
SCALE:	not to scale	DRAWN BY:	GPS



- Haul Route Receptors**
- R4 - Briggs School
 - R5 - Residential Dwelling
 - N6 - Residential Dwelling
 - N7 - Residential Dwelling
 - N8 - Residential Housing Tract
 - N9 - The Palms at Bonaventure Retirement Home

- Haul Route Segments**
- 1 - Briggs Road
 - 2 - Santa Paula side streets
 - 3 - Telegraph Road (east of the Facility)
 - 4 - Edwards Ranch Road
 - 5 - Olive Road
 - 6 - Telegraph Road (west of the Facility)
 - 7 - Ventura side streets
 - 8 - Wells Road

Source: Google Earth 2017
 — Approximate Facility Boundaries
 ← Haul Routes



SESPE
 CONSULTING, INC.

FIGURE 4	HAUL ROUTE SUMMARY		
	Agromin Commercial Organics Processing Operation Santa Paula, California 93060		
PROJECT #:	AG01.11.02	DATE:	1/7/17
SCALE:	N/A	DRAWN BY:	GPS



FIGURE 5
Industrial Model Results
Day/Evening/Night (Leq)

Time Slices Analyzed:
 Daytime = 6:00 AM-7:00 PM
 Evening = 7:00 PM-10:00 PM
 Nighttime = 10:00 PM-6:00 AM

Receptors:
 #1 = R1 (southwest)
 #2 = R2 (south)
 #3 = R3 (southeast)

Facility Noise Sources:
 -Open Windrow Composting
 -Covered Aerated Static Piles (CASP)
 -Anaerobic Digesters (AD)

23.0	7.1	7.1
22.5	6.8	6.8

24.9	-0.1	-0.1
------	------	------

30.7	17.0	17.0
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Signs and symbols

- Line
- Ground Absorption
- Volume Attenuation Areas
- Auxiliary Building
- Receiver
- ★ Point Source
- Area source



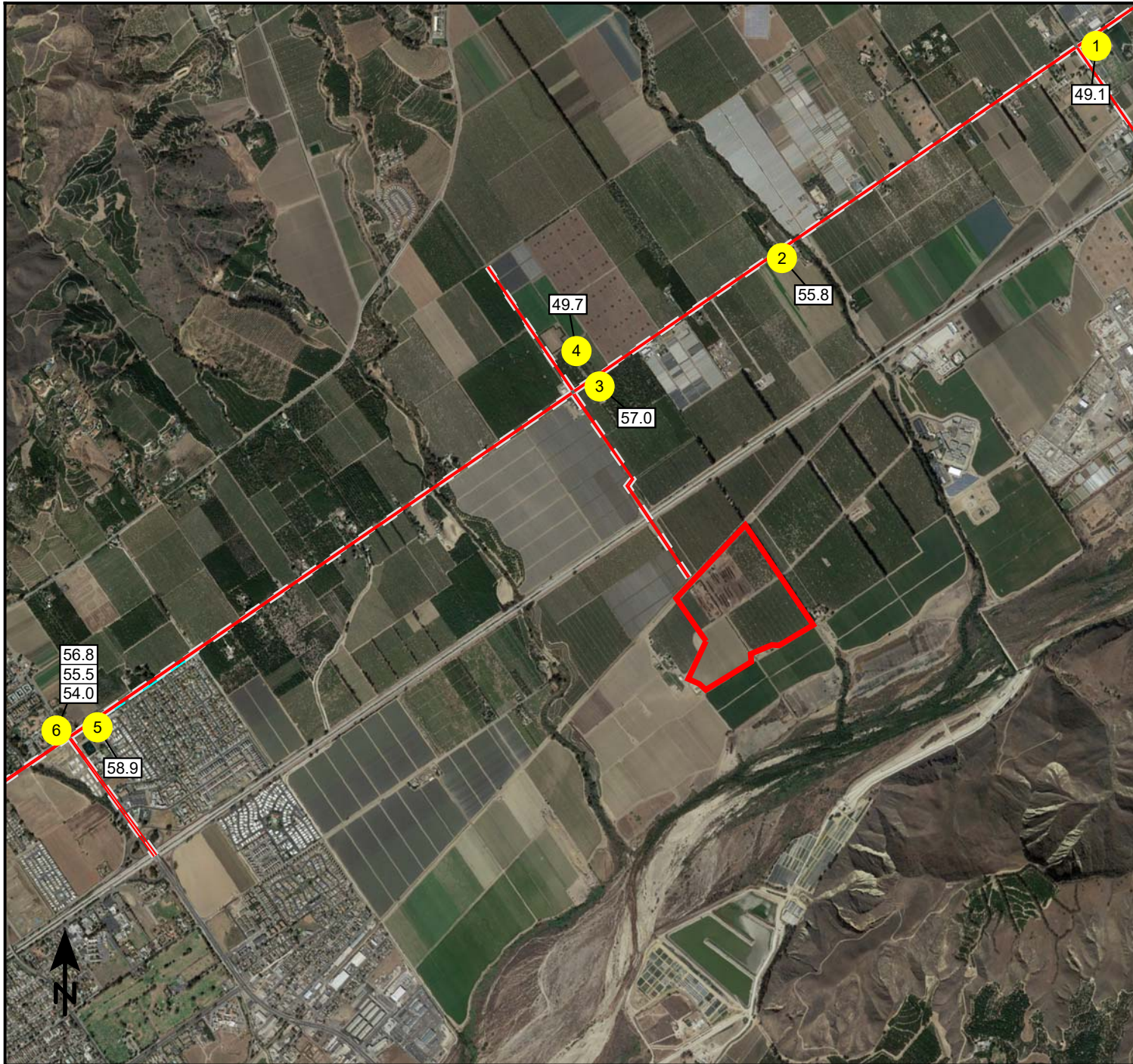


FIGURE 6
Traffic Noise Model - Baseline
Daytime Peak Hour (Leq)

- Receptors:
- #1 = R4 (Briggs School)
 - #2 = R5 (Residential Dwelling)
 - #3 = R6 (Residential Dwelling)
 - #4 = R7 (Ventura County Fire Station)
 - #5 = R8 (Residential Housing Tract)
 - #6 = R9 (Retirement Home)

- Vehicle Types Modeled:
- Haul/Delivery Trucks (HHD)
 - Light-Duty Trucks (LDT)
 - Passenger (LDA)

Signs and symbols

- Facility
- Wall
- Receiver
- Emission Line
- Surface



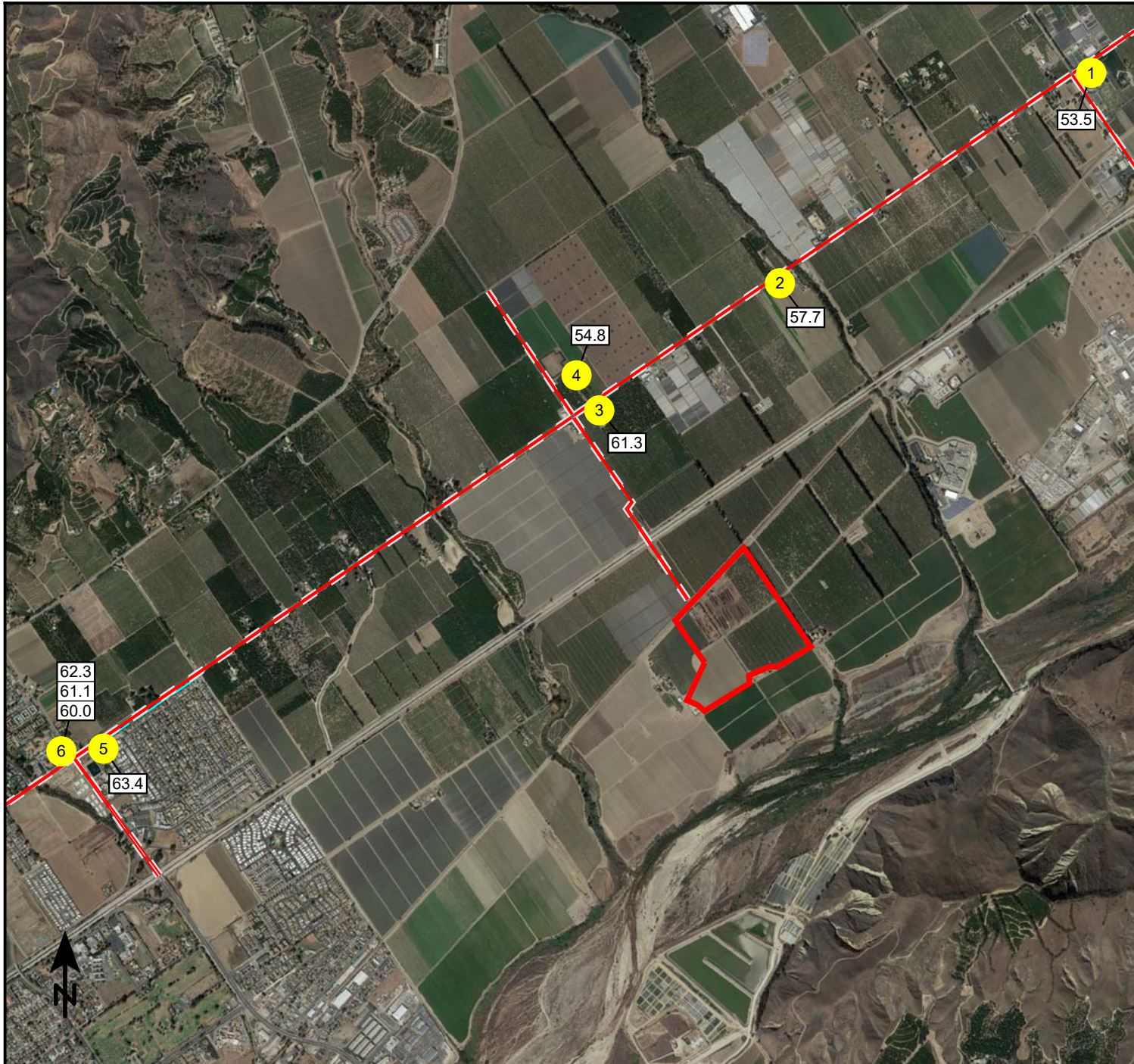


FIGURE 7
Traffic Noise Model - Project
Daytime Peak Hour (Leq)

Receptors:

- #1 = R4 (Briggs School)
- #2 = R5 (Residential Dwelling)
- #3 = R6 (Residential Dwelling)
- #4 = R7 (Ventura County Fire Station)
- #5 = R8 (Residential Housing Tract)
- #6 = R9 (Retirement Home)

Vehicle Types Modeled:

- Haul/Delivery Trucks (HHD)
- Light-Duty Trucks (LDT)
- Passenger (LDA)

Signs and symbols

- Facility
- Wall
- Receiver
- Emission Line
- Surface

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APPENDIX B
REGULATORY TEXT

4. County Health and Safety/Loss Prevention (General Service Agency) is responsible for monitoring *hazardous materials* in the work place for all County employees through the Hazardous Materials Abatement Program.
5. CEO-Risk Management, Health, Safety & Loss Prevention (HSLP) will continue administration of the Asbestos Management Program which provides a full range of asbestos abatement surveillance guidance and regulatory compliance advisory services applicable to all County owned facilities and operations.
6. The County Agricultural Commissioner's Office is responsible for enforcing all pesticide regulations, issuing licenses to applicators, distributors and dealers who handle pesticides and conducting inspections of all application and distribution facilities.
7. The County Environmental Health Division will continue to work with the appropriate State agencies to assess the public health and environmental impacts of identified waste disposal sites in the County, including abandoned and illegal sites.
8. The County Sheriff's Department Office of Emergency Services, in cooperation with the County Fire Protection District will annually review and revise the County *Multihazard Functional Plan's* Major Hazardous Materials Incident Contingency section.
9. The County Public Works Agency Environmental & Energy Resources Department will maintain a CHWMP that includes goals, policies, programs and an implementation schedule for management of household *hazardous waste* for action by the County and participating cities.
10. The County Sheriff's Department Office of Emergency Services, will coordinate with local, state and federal agencies regarding off shore oil incidents and onshore oil pipeline incidents and annually update the County *Multihazard Functional Plan's* Off Shore Oil Incidents Contingency section.
11. The Environmental Health Division is responsible to implement the requirements of Division 20, Chapter 6.5, Section 25189.5 (Health and Safety Code), involving any illegal discharge or threatened illegal discharge of a *hazardous waste* within the County.
12. The Environmental & Energy Resources Department and the Environmental Health Division will continue to coordinate with the Ventura Regional Sanitation District and local cities on the Household Hazardous Waste Program, which involves a) the collection of unused household products and pesticides that are considered hazardous, and b) a community education program on the safe use and disposal of household chemical products.

2.16 Noise

For purposes of this Plan, "noise" can be defined as any sound having an intensity (in terms of volume, pitch or duration) at the point of human perception that has the potential to stress or damage the organs of human hearing or to cause unwanted or unhealthy physiological effects, or is otherwise considered unwanted or annoying by the listener. The effects of noise accumulate over time, so it is necessary to deal not only with the intensity of sound but also the duration of human exposure to the sound.

Noise can be annoying and physically harmful to human beings and to animals. Human exposure to intense noise can result in irreversible hearing damage, and has been linked to other physiological effects including headaches, nausea, irritability, constriction of peripheral blood vessels, changes in heart and respiratory rates and in glandular and gastrointestinal activity and increased muscular tension. The effects of noise exposure in residential environments can include coughs and hoarseness caused by the strain of shouting above the noise. Noise can also affect accuracy at work, and has been found to be linked to job-related accidents and absenteeism.

High levels of noise can have effects on animals that are similar to those on humans, in terms of tissue damage, changes in blood pressure and chemistry, and hormonal changes. Hatching failures (in birds) and other changes in reproductive processes have also been reported. Additional effects on wildlife can include panicking, disruption of breeding and nesting behavior, birth defects, changes in migratory patterns, and even changes in the size of bodily organs. Noise can also mask animals' auditory signals and interfere with some animals' communication of necessary information. Adverse effects of noise on

farm animals can include changes in milk production, incubation behavior, mating behavior, and animal size and weight.

Noise can also have adverse effects on materials and structures, particularly as a result of sonic booms and related aircraft noises. These aircraft generated noises can excite buildings to vibrate and can break windows and crack plaster.

While any number of individual measures have been proposed, mitigation measures for identifiable noise problems fall into three categories:

- Reduction of the noise at its source.
- Modification of the path of the noise.
- Reduction of noise at the receiver with various types of insulation.

Noise is directly associated with human activity, and is primarily a function of traffic, machinery and airports. On a generalized basis, motor vehicles, as a group, are the most pervasive contributors to urban noise, while aircraft, railroads and certain high intensity industrial noise generators may produce the most aggravated community annoyance reactions. Due to wide distribution and the types of machinery used, industrial sources are the second greatest noise generator. Airports are regarded as the third greatest noise generator. Other significant noise sources are powered gardening equipment, amplified music, power tools and air conditioners.

Land uses considered *noise sensitive uses* include residential, educational, and health facilities, research institutions, certain recreational, and entertainment facilities (typically, indoor theaters and parks for passive activities) and churches. Uses considered less sensitive to noise include commercial and industrial facilities and certain noise-generating recreational facilities such as playgrounds and gymnasiums.

The goal, policies and programs that apply to noise are as follows:

2.16.1 Goal

To protect the health, safety and general welfare of County residents by elimination or avoidance of adverse noise impacts on existing and future *noise sensitive uses*.

2.16.2 Policies

1. All *discretionary development* shall be reviewed for noise compatibility with surrounding uses. Noise compatibility shall be determined from a consistent set of criteria based on the standards listed below. An acoustical analysis by a qualified acoustical engineer shall be required of *discretionary developments* involving noise exposure or noise generation in excess of the established standards. The analysis shall provide documentation of existing and projected noise levels at on-site and off-site receptors, and shall recommend noise control measures for mitigating adverse impacts.
 - (1) *Noise sensitive uses* proposed to be located near highways, truck routes, heavy industrial activities and other relatively continuous noise sources shall incorporate noise control measures so that:
 - a. Indoor noise levels in habitable rooms do not exceed CNEL 45.
 - b. Outdoor noise levels do not exceed CNEL 60 or $L_{eq}1H$ of 65 dB(A) during any hour.
 - (2) *Noise sensitive uses* proposed to be located near railroads shall incorporate noise control measures so that:
 - a. Guidelines (1)a. and (1)b. above are adhered to.
 - b. Outdoor noise levels do not exceed L_{10} of 60 dB(A).
 - (3) *Noise sensitive uses* proposed to be located near airports:
 - a. Shall be prohibited if they are in a CNEL 65 or greater, noise contour.
 - b. Shall be permitted in the CNEL 60 to CNEL 65 noise contour area only if means will be taken to ensure interior noise levels of CNEL 45 or less.

- (4) Noise generators, proposed to be located near any *noise sensitive use*, shall incorporate noise control measures so that ongoing outdoor noise levels received by the noise sensitive receptor, measured at the exterior wall of the building, does not exceed any of the following standards:
 - a. $L_{eq}1H$ of 55dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.
 - b. $L_{eq}1H$ of 50dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.
 - c. $L_{eq}1H$ of 45dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m.

Section 2.16.2(4) is not applicable to increased traffic noise along any of the roads identified within the 2020 Regional Roadway Network (Figure 4.2.3) Public Facilities Appendix of the Ventura County General Plan (see 2.16.2-1(1)). In addition, State and Federal highways, all railroad line operations, aircraft in flight, and public utility facilities are noise generators having Federal and State regulations that preempt local regulations.

- (5) Construction noise shall be evaluated and, if necessary, mitigated in accordance with the County Construction Noise Threshold Criteria and Control Plan.
2. Discretionary development which would be impacted by noise, or generate project related noise which cannot be reduced to meet the standards prescribed in Policy 2.16.2-1., shall be prohibited. This policy does not apply to noise generated during the construction phase of a project.
3. The priorities for noise control shall be as follows:
 - (1) Reduction of noise emissions at the source.
 - (2) Attenuation of sound transmission along its path, using barriers, landforms modification, dense plantings, and the like.
 - (3) Rejection of noise at the reception point via noise control building construction, hearing protection or other means.

2.16.3 Programs

1. The Oxnard and Camarillo Airport Master Plans recommend the preparation of noise abatement plans, the formation of local noise abatement committees with input from local citizens, and distribution of a periodic newsletter documenting noise abatement policies to aircraft operators and other interested parties. The airport plans also recommend periodic sampling measurements and updating of the CNEL noise model parameters, and discussion of alternative approaches for noise abatement.

In addition, the Oxnard plan recommends publication of a map of recommended noise abatement flight tracks and operating procedures, for distribution to area airports and other interested parties.
2. The Public Works Agency will continue to work with CalTrans and City transportation offices to optimize signal timings and arterial stop sign location so that stop-go truck traffic is minimized in areas surrounded by noise-sensitive uses.
3. The noise *goals, policies* and *programs*, as well as the noise appendix, will be reviewed by the Planning Division as needed.
4. The Public Works Agency will prepare a proposal for consideration by the Board of Supervisors to study the feasibility of constructing noise barriers in areas containing existing *noise sensitive uses* which are or will be significantly impacted by traffic noise.
5. The Building and Safety Division will continue to enforce Appendix Chapter 35 of the Uniform Building Code (UBC) and UBC Appendix 3501 of the Ventura County Building Code for the purposes of protecting persons within new hotels, motels, apartment houses, and dwelling units from effects of excessive noise including external community noise.

6. The Building and Safety Division and Public Works Agency shall prepare a budgetary proposal for Board consideration to amend the County Building Code, including Excavation and Grading Standards, to impose the noise criteria and mitigation measures contained within the County Construction Noise Threshold Criteria and Control Plan.

2.17 Civil Disturbance

Civil unrest, terrorism, and national security emergency hazards are forms of civil disturbance, which are of major public concern and necessitate a planned and coordinated response by a number of public agencies.

Civil Unrest

Civil unrest is the spontaneous disruption of normal, orderly conduct and activities in urban areas, or outbreak of rioting or violence that is of a large-scale nature. Civil unrest can be spurred by specific events, such as large sporting events or criminal trials, or can be the result of long-term disfavor with authority. Civil unrest is usually noted by the fact that normal on-duty police and safety forces cannot adequately deal with the situation until additional resources can be acquired. This is the time period when civil unrest can grow to large proportions.

Threat to law enforcement and safety personnel can be severe and bold in nature. Securing of *essential facilities* and services is necessary. Looting and fires can take place as a result of perceived or actual non-intervention by authorities.

The various agencies that are vested with providing emergency response services within their respective jurisdictions are very adept at dealing with ordinary and routine emergency incidents. There are, however, incidents and circumstances that by their very nature exceed the ability and capacity of a single jurisdiction to cope with the situation. When this occurs, a request for additional resources is initiated and is accommodated through mutual aid agreements. Incidents, whether they are natural (e.g., flooding, earthquakes), or civil disturbances that occur simultaneously in a widespread manner affecting multiple jurisdictions, require a greater degree of coordination and organization. The Ventura County Law Enforcement Mutual Aid Manual addresses the mechanics of mutual aid activation and level of response. It also speaks to the establishment of a unified command structure organized to deal with incidents that affect the entire operational area whether in a direct or indirect fashion.

Active participation in the unified command and incident command system is essential if a coordinated effort is to be initiated and maintained.

The entire County, consisting of residential, industrial and commercial properties, is vulnerable to the effects of civil unrest.

Terrorism

Terrorism is defined as the use of fear for intimidation, usually for political goals. Terrorism is a crime where the threat of violence is often as effective as the commission of the violent act itself. Terrorism affects us through fear, physical injuries, economic losses, psychological trauma, and erosion of faith in government. Terrorism is not an ideology. Terrorism is a strategy used by individuals or groups to achieve their goals.

In the wake of the 1993 World Trade Center bombing in New York and the Oklahoma City bombing in 1995, terrorism became a serious concern for emergency management, emergency responders, and the public at large. However, the 2001 attack on the World Trade Center and the Pentagon has now elevated our concern about terrorism to a level we never imagined, and requires us to be prepared to respond to situations that go beyond the terrorist incident scenarios that we are familiar with.

Terrorists espouse a wide range of causes. They can be for or against almost any issue, religious belief, political position, or group of people of one national origin or another. Because of the tremendous variety of causes supported by terrorists and the wide variety of potential targets, there is no place that is truly safe from terrorism. Throughout California there is nearly limitless number of potential targets, depending on the perspective of the terrorist. Some of these targets include: medical facilities/clinics, religious facilities, government offices, public places (such as shopping centers), schools, power plants, refineries, utility infrastructures, water storage facilities, dams, private homes of prominent individuals, financial institutions and other businesses.

21. Noise and Vibration

A. Definition of Issue

Noise is defined as any unwanted sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. Noise impacts can occur during the construction and/or operational phases of a project.

With the exception of a few large-scale construction projects that last a period of years, most projects involve only short term construction noise impacts. The severity of construction noise impacts varies based on the location of sensitive receptors; type or phase of construction; combination of equipment used; site layout; and, construction methods that are employed.

Operational noise typically includes long-term impacts—that is, impacts that persist throughout the life of a project. Impacts from operational noise vary based on the: location of sensitive receptors; type of equipment or machinery that is used; site layout; and, duration and times during which noise-generating uses occur.

Vibration is defined as a motion that repeatedly reverses itself. The most common type of environmental impact involving vibration consists of ground vibration, which is the periodic displacement of earth, which creates vibration waves that move through soil and rock strata, foundations of nearby buildings, and then throughout the parts of the building structure. Ground-borne vibration can result in sensible movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. The rumbling sound caused by the vibration of room surfaces is called ground-borne noise.

The operation of construction equipment and construction techniques (e.g., pile driving, blasting, or excavation) can generate temporary ground vibration impacts. Moreover, heavy duty vehicles traveling along roadways with potholes and bumps, steel-wheeled/steel-rail vehicles (e.g., trains), and equipment used in industrial operations which are related to a proposed project can generate recurring ground vibration impacts throughout the life of a project. If the amplitudes are high enough, ground vibration can: cause damage to buildings, ranging from more severe (yet uncommon) structural damage to less severe cosmetic damage (e.g., cracked plaster); and, generate ground-borne noise that is discomforting or a nuisance to individuals who live or work close to vibration-generating activities.

B. Definition of Terms

The following is a partial glossary of acoustic and vibration terminology. For a more comprehensive glossary of noise-related terms, see the Ventura County General Plan Hazards Appendix (§2.16.2). For a more comprehensive glossary of vibration-related terms, see the Transit Noise and Vibration Impact Assessment.¹

Ambient Noise - The noise that results from the combination of all sources, near and far, which constitutes the existing environmental setting for the purposes of evaluating noise impacts. The ambient noise levels are expressed as L_{eqT} or CNEL as judged appropriate to the situation.

A-weighted Sound Level [$L_A - dB(A)$] - Sound pressure level measured using the A-weighting network, a filter which discriminates against low and very high frequencies in a manner similar to the human hearing mechanism at moderate sound levels (ANSI S1.4).

Community Noise Equivalent Level [CNEL - dB(A)] - The long-term time average sound level, weighted as follows:

- Frequency response is filtered using the A-weighting network.
- Sounds occurring between 7 p.m. and 10 p.m. are weighted by 5 dB (in effect, the number of noise events is multiplied by 3.15).

¹ Hanson, Carl E., David A. Towers, and Lance D. Meister. (May 2006). *Transit Noise and Vibration Impact Assessment*. Federal Transit Administration, Office of Planning and Environment. FTA-VA-90-1003-06. Available on-line at: http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf.

- Sounds occurring between 10 p.m. and 7 a.m. are weighted by 10 dB (in effect, the number of noise events is multiplied by 10).

Decibel (dB) - A unit of sound measurement equal to 10 times the base-10 logarithmic ratio squared of the magnitude of acoustic pressure divided by and relative to a specified reference level. The airborne acoustic pressure reference level is the threshold of hearing of an average human, which is equal to 20 micropascals (μPa or 2×10^{-5} Pa) and is equivalent to 0 dB, the quietest sound a human can hear. A 3 dB increase is barely detectable. A 10 dB increase represents a doubling of loudness.

Noise Contour - A line on a map that indicates locations of constant ambient sound level near or around known sources of noise. In practice, noise contours are often shown as calculated for the dominant source of noise only.

Noise Sensitive Uses - Dwellings, schools, hospitals, nursing homes, churches and libraries.

Time Average Sound Level (L_{eqT} - dB) - The level, in decibels, of the mean sound pressure averaged over time period T. This is often referred to as "equivalent sound level" and hence the "eq" subscript. The "equivalence" is to a sound of constant level that has the same total acoustic energy content.

Vibration Category 1 (High Sensitivity Use) - Buildings where vibration would interfere with operations within the building, including levels that may be well below those associated with human annoyance. Examples include: concert halls; vibration-sensitive research and manufacturing; hospitals with vibration-sensitive equipment; and, university research operations.

Vibration Category 2 (Residential) - All residential land uses and any buildings where people sleep, such as hotels and hospitals.

Vibration Category 3 (Institutional) - Schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.

C. Applicable General Plan Goals and Policies

The following goals and policies of the Ventura County General Plan are applicable to this issue:

Countywide Goals, Policies and Programs:

Goal 2.16.1
Policies 2.16.2-1 through -3

Lake Sherwood/Hidden Valley Area Plan:

Goals 3.3.1-1 & -2
Policies 3.3.2-1 through 5

Oak Park Area Plan:

Goals 2.4.1-1 & -2
Policies 2.4.2-1 through -5

Ojai Valley Area Plan:

Goals 2.4.1-1 & -2
Policies 2.4.2-1 through -3

Piru Area Plan:

Goals 2.4.1-1 & -2
Policies 2.4.2-1 through -3

Thousand Oaks Area Plan:

Goals 2.3.1-1 & -2
Policy 2.3.2

D. Threshold of Significance Criteria

Noise Thresholds:

Any project that produces noise in excess of the standards for noise in the Ventura County General Plan Goals, Policies and Programs (Section 2.16) or the applicable Area Plan, has the potential to cause a significant noise impact. Noise-generating uses that either individually or when combined with other recently approved, pending, and probable future projects, exceeds the noise thresholds of General Plan Noise Policy 2.16.2-1(4) are considered to have a potentially significant impact.

Vibration Thresholds:

1. Construction Threshold - Any project that either individually or when combined with other recently approved, pending, and probable future projects, includes construction activities involving blasting, pile-driving, vibratory compaction, demolition, and drilling or excavation which exceed the threshold

criteria provided in the Transit Noise and Vibration Impact Assessment (Section 12.2),² is considered to have a potentially significant impact.

Table 1 - Screening Distances for Vibration Assessment

Vibration-Generating Transit Use	Critical Distance for Land Use Categories* Distance from Right-of-Way or Property Line (feet)		
	Category 1	Category 2	Category 3
Steel-Wheeled/Steel-Rail Vehicle Transit Uses			
Conventional Commuter Railroad	600	200	120
Rail Rapid Transit	600	200	120
Light Rail Transit	450	150	100
Intermediate Capacity Transit	200	100	50
Rubber-Tire Heavy Vehicle Uses			
Rubber-Tire Heavy Vehicles (if not previously screened out)**	100	50	--

*See the "Definition of Technical Terms" (above) for the land uses that fall within each of the Categories, as well as the Transit Noise and Vibration Impact Assessment, Appendix A, for the definitions of vibration-generating transit uses listed in this table. For the purposes of screening procedures, concert halls and television studios should be evaluated as Category 1, and theaters and auditoriums should be evaluated as Category 2.

**See the discussion below.

Source: Transit Noise and Vibration Impact Assessment, Table 9.2.

2. Transit Use Thresholds - Table 1 lists the thresholds for vibration-generating transit uses, based on the type of transit use and the location of the transit use in relation to sensitive use categories. If a project would result in a transit use located within any of the critical distances of the vibration-sensitive uses listed in Table 1, the project has the potential to result in a significant impact and must be evaluated using the Transit Noise and Vibration Impact Assessment (Chapters 8 through 11).³
3. Commercial/Industrial Use Vibration Thresholds:
 - a. Any project that would generate new heavy vehicle (e.g., semi truck or bus) trips on uneven roadways located within proximity to sensitive uses has the potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria of the Transit Use Thresholds for rubber-tire heavy vehicle uses (Item No. 3 and Table 1, above), thereby resulting in a potentially significant impact.

² Ibid

³ Ibid.

- b. Any project that involves blasting, pile-driving, vibratory compaction, demolition, drilling, excavation, or other similar types of vibration-generating activities has the potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria⁴ provided in the *Transit Noise and Vibration Impact Assessment* (Section 12.2),⁵ thereby resulting in a potentially significant impact.

E. Methodology

Noise

Construction noise impacts shall be evaluated using the assessment methodology, criteria, and reporting procedures provided in the Construction Noise Threshold Criteria and Control Measures.⁶ All other types of noise impacts shall be evaluated pursuant to the following procedures.

Step 1 - Preliminary Noise Assessment

A preliminary noise assessment shall be conducted by the County Agency responsible for administering the proposed development project. The purpose of the preliminary noise assessment is to determine if a consultant prepared acoustical analysis is required. (See Step 2, below) The preliminary noise assessment shall consist of the following:

- a. **Determine if the Proposed Use is Noise Sensitive or a Noise Generator** - If the proposed use is *noise sensitive*, see Steps 1.b, 1.c and 1.d below. If the proposed use is a potential noise generator, see Step 1.e below.
- b. **Consult) GIS Noise Exposure/Contour Maps** - Using Planning GIS, view the project site with the noise layers turned on, in order to determine whether or not the noise-sensitive use site is within the 60 dB(A) CNEL contour of a highway or airport . If the project is located within this contour, the noise impact is potentially significant and a consultant prepared acoustical analysis must be completed.
- c. **Consult Land Use Maps** - Locate the project area on the General Land Use, Existing Community and Area Plan Maps (as appropriate) of the General Plan, which are available from the Resource Management Agency, GIS Development and Mapping Services Division. If the project is noise-sensitive and is within 500 feet of an industrially designated area, the noise impact is potentially significant and a consultant prepared acoustical analysis must be completed.
- d. **Consult GIS Aerial Imagery** – Using Planning GIS, view the project site with the most current aerial imagery layer turned on to determine if a railroad exists within the vicinity of the project site. If a railroad exists, use the measuring tool to determine the distance between the noise-sensitive use site and the railroad. If the noise-sensitive project site is located within 3,400⁷ feet of a railroad, the noise impact is potentially significant and a consultant prepared acoustical analysis must be completed.
- e. **Estimate Potential Noise Impact** - If the project is a noise-generator, it will be necessary to determine:
 - The noise-generating equipment's and activities' estimated noise levels and the times at which the noise levels would occur; and,

⁴ The severity of vibration-related impacts to buildings and humans are the same regardless of the source of the vibration, be it from construction or operational activities, provided that the equipment is equivalent in terms of their vibration-generating potential. Therefore, the construction-related threshold criteria are to be used for commercial/industrial operations.

⁵ Hanson, Carl E., David A. Towers, and Lance D. Meister. (May 2006).

⁶ Advanced Engineering Acoustics. (November 2005). *County of Ventura Construction Noise Threshold and Criteria Plan*. Available on-line at: http://www.ventura.org/rma/planning/pdf/ceqa/Construction_Noise_Thresholds.pdf.

⁷ This distance was determined based on: (1) the maximum indoor noise level for habitable rooms (45 CNEL) stated in the Ventura County General Plan *Goals, Policies and Programs*, Noise Policy 2.16.2-1(1)a; and, (2) the calculated distance in feet between main line railroad tracks and the 45 CNEL contours, for railroads within Ventura County (Ventura County General Plan *Hazards Appendix*, 2005, 94).

- The proximity of the noise-generating equipment to the noise-sensitive uses using the project plans, information gathered during a site visit, aerial imagery, and land use maps that are available from the Resource Management Agency, GIS Development and Mapping Services Division.

In general, noise decreases by 5 dB for each doubling of the distance from the noise source. If the noise from the proposed project is estimated to exceed any of the following standards at the nearest *noise sensitive use*, the noise impact is deemed to have a potentially significant noise impact and a consultant prepared acoustical analysis must be completed:

55 dB(A) between 6:00 a.m. and 7:00 p.m.,

50 dB(A) between 7:00 p.m. and 10:00 p.m., or

45 dB(A) between 10:00 p.m. and 6:00 a.m.

If the preliminary noise assessment reveals that the project does not have the potential to create a significant noise impact and an acoustical analysis is not required, the agency that is responsible for administering the project shall complete the Initial Study Checklist and discussion of responses to the checklist pursuant to the “Instructions for Preparing an Initial Study” provided in the Ventura County Initial Study Assessment Guidelines. However, if the preliminary noise assessment reveals that the project has the potential to create a significant noise impact, a consultant prepared acoustical analysis must be prepared pursuant to the criteria provided in Step 2 (below).

Step 2 - Consultant Prepared Acoustical Analysis

If it is determined that a quantitative assessment is required, a qualified noise consultant shall prepare the analysis (see attached Noise Consultant Qualifications). The agency that is responsible for administering the project will ensure that the consultant meets the minimum qualifications.

Acoustical Analysis Requirements

The purpose of the consultant prepared acoustical analysis is to: determine if the project would result in any potentially significant noise impacts; identify any feasible mitigation measures that might exist to reduce the severity of the noise impacts; and, determine if the noise impacts, after mitigation, are still potentially significant. As such, the acoustical analysis must include a(n):

- Discussion of the existing environmental setting (e.g., a description of the noise sources and *ambient noise* levels of the project site and surrounding area);
- Discussion of recently approved, pending, and probable future noise-generating projects⁸ that have the potential to contribute to cumulative impacts to the noise environment and, as such, are included in the acoustical analysis;
- Discussion of the methodology used in collecting noise data (e.g., noise equipment and metrics used). Noise measurements should be taken using standard industry practices, after taking into consideration site-specific characteristics (e.g., buildings, walls, topography, and the location of existing and potential future noise-sensitive receptors in relation to noise generators) which might have an influence on the noise measurements;
- Discussion of the methodology used in calculating project-specific and cumulative noise impacts (e.g., noise models used);
- Presentation of the data on the existing noise environment, as well as data on projected noise levels; and,
- Initial Study checklist and discussion pursuant to the requirements of the “Instructions for Preparing an Initial Study” in the Ventura County Initial Study Assessment Guidelines.

⁸ The list of recently approved, pending, and probable future projects is available on-line at: <http://www.ventura.org/rma/planning/Permits/projects.html>.

Step 3 - Environmental Document Determination

If the acoustical analysis shows that there would be no significant impact, the Initial Study Checklist should be checked LS. If the study shows that there would be potentially significant noise impacts, but feasible mitigation measures could be incorporated into the project which could reduce the impact to a less than significant level, then the Initial Study Checklist should be checked PS-M. If the study shows that there would be significant, immitigable noise impacts (except construction related noise), the project could not be approved because of the General Plan noise policies. .

Step 4 - Update Data Base

In a continuing effort to update County noise data, a copy of all consultants' acoustical analysis shall be sent to the Planning Director.

Vibration:

Construction-Related Vibration

The agency that is responsible for administering the project shall request from the applicant information regarding the: types of construction activities that will be required; duration of each construction phase; and, types and number of construction equipment that will be used during each phase of construction. Using the list of recently approved, pending, and probable future projects,⁹ the agency also shall identify other vibration-generating projects located within the vicinity of the project site that have the potential to contribute to cumulative impacts relating to vibration. Once this information is obtained, the agency that is responsible for administering the project shall evaluate potential construction-related vibration impacts using the assessment methodology provided in the Transit Noise and Vibration Impact Assessment (Section 12.2 et seq).¹⁰

As discussed in the Transit Noise and Vibration Impact Assessment, many projects will not have the potential to create prolonged annoyance or damage from construction vibrations and, therefore, will only require a qualitative assessment of potential construction-related vibration impacts. In these cases, the agency that is responsible for administering the project shall prepare the Initial Study checklist and discussion pursuant to the requirements of the "Instructions for Preparing an Initial Study" in the Ventura County Initial Study Assessment Guidelines.

Steel-Wheeled/Steel-Rail Vehicle Transit Uses

In order to determine if a project has the potential to generate a significant impact using the threshold criteria provided above (Threshold Criterion No. 3 and Table 1), the agency that is responsible for administering the project will need to determine if any vibration-sensitive uses are located within proximity to the project site. This information can be gathered by observation during a site visit and using the aerial imagery in Planning GIS. During the site visit, the agency that is responsible for administering the project shall identify any vibration-sensitive uses located within proximity to the project site. Using Planning GIS, the agency that is responsible for administering the project should view the project site with the most current aerial imagery data layer, identify the location of the vibration sensitive use that was identified during the site visit vis-à-vis the project site, and use the measuring tool to determine the distance between the vibration-sensitive use and the project site.

If the project site is located outside of the critical distance for the vibration-sensitive use specified in Table 1 (above), the project would have a less-than-significant impact, and the agency that is responsible for administering the project shall complete the Initial Study checklist and discussion pursuant to the requirements of the "Instructions for Preparing an Initial Study" in the Ventura County Initial Study Assessment Guidelines.

If the project site is located within the critical distance specified in Table 1 (above), the project shall be evaluated for potential vibration impacts using the assessment methodology, criteria, and reporting procedures provided in the Transit Noise and Vibration Impact Assessment (Chapters 9 through 11, and

⁹ See Footnote 13 (above).

¹⁰ Hanson, Carl E., David A. Towers, and Lance D. Meister. (May 2006).

13).¹¹ Both project-specific and the project's contribution to cumulative impacts shall be evaluated. Cumulative impacts shall be evaluated by incorporating into the assessment all recently approved, pending, and probable future projects located within the vicinity of the project site that have the potential to contribute to cumulative impacts relating to vibration.¹² A qualified engineer must prepare the analysis. The agency that is responsible for administering the project will be responsible for selecting the consultant, and shall develop its own contract procedures with which to hire consultants. The consultants must meet the qualifications discussed in the Construction-Related Vibration Section (above). The analysis must include an Initial Study checklist and discussion that meets the requirements of the "Instructions for Preparing an Initial Study" in the Ventura County Initial Study Assessment Guidelines.

Rubber-Tire Heavy Vehicle Transit Uses

Rubber-tire heavy vehicles traveling on roadways typically will not produce a significant vibration impact, except in situations where a large number of heavy vehicles (e.g., semi trucks or buses) are traveling along uneven roadways within proximity to sensitive uses. Therefore, if a project would build, place or expand vibration-sensitive uses in close proximity to roadways on which a large number of rubber-tire heavy vehicles travel, the following initial screening questions must be asked to determine if the project would result in a potentially significant vibration impact:

1. Will the project result in the location of vibration-sensitive uses in close proximity to roadways with expansion joints, speed bumps, or other design features that result in unevenness in the road? Such roadway irregularities can result in perceptible ground-borne vibration at distances up to 75 feet away.
2. Will the project result in buses, trucks or other heavy vehicles operating near a vibration-sensitive use? Research using electron microscopes and manufacturing of computer chips are examples of vibration-sensitive uses.
3. Will the project result in the operation of vehicles inside or directly underneath buildings that are vibration-sensitive? Special considerations are often required for shared-use facilities such as a bus station located inside an office building complex.

If the answer is "no" to all three of the initial screening questions, the project would have a less-than-significant impact, and the agency that is responsible for administering the project shall complete the Initial Study checklist and discussion that meets the requirements of the "Instructions for Preparing an Initial Study" in the Ventura County Initial Study Assessment Guidelines.

If the answer is "yes" to any one of the initial screening questions, the project must be evaluated using the screening criteria in Table 1 (above). If the project would result in the location of rubber-tire heavy vehicle uses within any of the critical distances of the sensitive use categories listed in Table 1, the project has the potential to generate a significant impact, and must be evaluated using the Transit Noise and Vibration Impact Assessment.¹³ Both project-specific and the project's contribution to cumulative noise impacts shall be evaluated. Cumulative impacts shall be evaluated by incorporating into the assessment all recently approved, pending, and probable future projects located within the vicinity of the project site that have the potential to contribute to cumulative impacts relating to vibration.¹⁴ A qualified engineer must prepare the analysis. The agency that is responsible for administering the project will be responsible for selecting the consultant, and shall develop its own contract procedures with which to hire consultants. The consultants must meet the qualifications discussed in the Construction-Related Vibration Section (above). The analysis must include an Initial Study checklist and discussion that meets the requirements of the "Instructions for Preparing an Initial Study" in the Ventura County Initial Study Assessment Guidelines.

¹¹ Hanson, Carl E., David A. Towers, and Lance D. Meister. (May 2006).

¹² See Footnote 13 (above).

¹³ Hanson, Carl E., David A. Towers, and Lance D. Meister. (May 2006).

¹⁴ See Footnote 13 (above).

Commercial- or Industrial-Generated Vibration

Any project that would generate new heavy vehicle (e.g., semi truck or bus) trips on uneven roadways located within proximity to sensitive uses shall be evaluated using the methodology prescribed for rubber-tire heavy vehicle transit uses (above).

Any project that involves blasting, pile-driving, vibratory compaction, demolition, drilling, excavation, or other similar types of vibration-generating activities shall be evaluated using the methodology prescribed for construction-related vibration (above).

Adopted by the Board of Supervisors on July 27, 2010

Attachment Noise Consultant Qualifications

The Environmental Quality Advisory Committee has established the following minimum qualifications for noise consultants for the purpose of conducting acoustical analysis. Noise consultants must demonstrate that they meet the minimum qualifications as defined below:

Education - Consultants should hold an advanced degree from an accredited institution (e.g., M.A., M.S., or Ph.D.) in Physics, Mathematics, Engineering or related discipline. Consultants without an advanced degree in these fields must provide documentation of at least five years of relevant research or field work in acoustical engineering.

Experience - All consultants must possess a working knowledge of physics, acoustical principles, utilization of sound level meters, and applicable state codes. Experience with CEQA is highly desirable. Consultants also must have experience in the following:

- Acquiring and evaluating data;
- Creating mitigation monitoring and reporting programs; and,
- Evaluating designs for compliance with standards relative to land use.

Local and State Expertise - Consultants must provide evidence of expertise in community/industrial noise (e.g., the preparation of Noise Elements of General Plans, technical reports, studies, mitigation measures, or noise ordinances).

Professional Certification - Evidence of professional certification is highly desirable though not required.

Vibration Consultant Qualifications

Environmental Quality Advisory Committee has established the following minimum qualifications for vibration consultants for the purpose of conducting vibration analyses. Vibration consultants must demonstrate that they meet the minimum qualifications for vibration consultants as defined below:

Education - Consultants should hold an advanced degree from an accredited institution (e.g., M.A., M.S., or Ph.D.) in Physics, Mathematics, Engineering or related discipline. Consultants without an advanced degree in these fields must provide documentation of at least five years of relevant research or field work in engineering activities involving vibration impact assessment.

Experience: All consultants must possess a working knowledge of physics, vibration principles, and applicable state codes. Experience with CEQA is highly desirable. Consultants also must have at least five years experience in the following:

- Acquiring and evaluating data;
- Creating mitigation monitoring and reporting programs; and,
- Evaluating designs for compliance with standards relative to land use.

Local and State Expertise - Consultants must provide evidence of expertise in transportation, construction, and/or industrial vibration (e.g., the preparation of environmental assessments, technical reports, studies, or mitigation measures).

Professional Certification - Evidence of professional certification is highly desirable though not required.

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COUNTY OF VENTURA

**CONSTRUCTION NOISE THRESHOLD CRITERIA
AND CONTROL PLAN**

Adopted November 2005
Amended July 2010

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Construction and Noise

A distinct difference between the construction industry and other industries is that construction is, in the vast majority of cases, a temporary activity. There are very few construction projects that last several years. Even very large buildings and roads are under construction in a particular area for only a reasonably short time period, seldom more than two years. As the construction project progresses, the noise from such a project changes as the different phases of the construction are undertaken. Noise mitigation programs that take a long time to implement or officials that are very slow to act usually find that the problem is gone by the time the remedies are in place. Often a construction contractor can avoid most community complaints simply by notifying the potentially affected residents and other sensitive receptors regarding the purpose of the project and the expected completion schedule. People want to know how soon the construction will be finished and what are the project benefits to the neighborhood.

Thus, rather than being a continuous problem, construction noise is always a temporary site-specific problem. As such, there are many factors that contribute to the potential impacts due to construction noise, including the location of sensitive receptors, the type or phase of construction, the combination of equipment used, the site layout, and the construction methods employed. The noise created by construction equipment will vary greatly during a project, depending on such factors as the type of equipment, the specific equipment models, the operation being performed, the care employed by equipment operators and the condition of the equipment being used.

Fundamentals of Sound

A brief introduction to the fundamentals of sound may be useful. Physically, sound magnitude is measured and quantified in terms of the decibel (dB), which is a unit on a logarithmic scale based on the ratio of the measured sound pressure to the reference sound pressure of 20 micropascal ($20 \mu\text{Pa} = 20 \times 10^{-6} \text{ N/m}^2$). The decibel system can be very confusing to people since it is logarithmic and not arithmetic. For example, doubling or halving the number of sources of equal sound (a 2-fold change in acoustic *energy*) changes the receptor sound by only 3 dB, which is a barely perceptible sound loudness change for humans. On the other hand, a doubling or halving the sound *loudness* at the receiver results from a 10 dB change, which also represents a 10-fold change in the acoustic *energy*.

In addition, the human hearing system exhibits a slow time response and also is not equally sensitive to the same sound pressure level at low, middle and high acoustic frequencies. Because of this variability, a frequency-dependent, adjustment called "A-weighting" has been devised so that sound may be measured in a manner similar to the way the human hearing system responds. The A-weighted sound level is abbreviated "dBA". Figure 1 gives typical A-weighted sound levels for various noise sources and the typical reactions to these levels. All sound levels referred to in this document are A-weighted, slow response, sound pressure levels.

The two acoustical metrics most frequently used to provide a single number sound level for time-varying sounds over a given time period are the energy equivalent or energy average sound level (L_{eq}) and the "slow response" maximum sound level (L_{max}). The long-term A-weighted energy average sound level, called the 24-hour equivalent sound level, $L_{eq}(24h)$, is the logarithmic average of the individual 24 hourly equivalent sound levels, $L_{eq}(h_i)$. Since it has been found that noise is more disturbing in the evening and nighttime when the ambient noise is

generally quieter, modifications to the 24-hour L_{eq} have been adopted. The Day-Night sound level (DNL or L_{dn}) is a 24-hour energy average noise level based on the daytime and nighttime hourly average $L_{eq}(h)$ noise levels, with a 10 dB penalty added to each hourly nighttime average

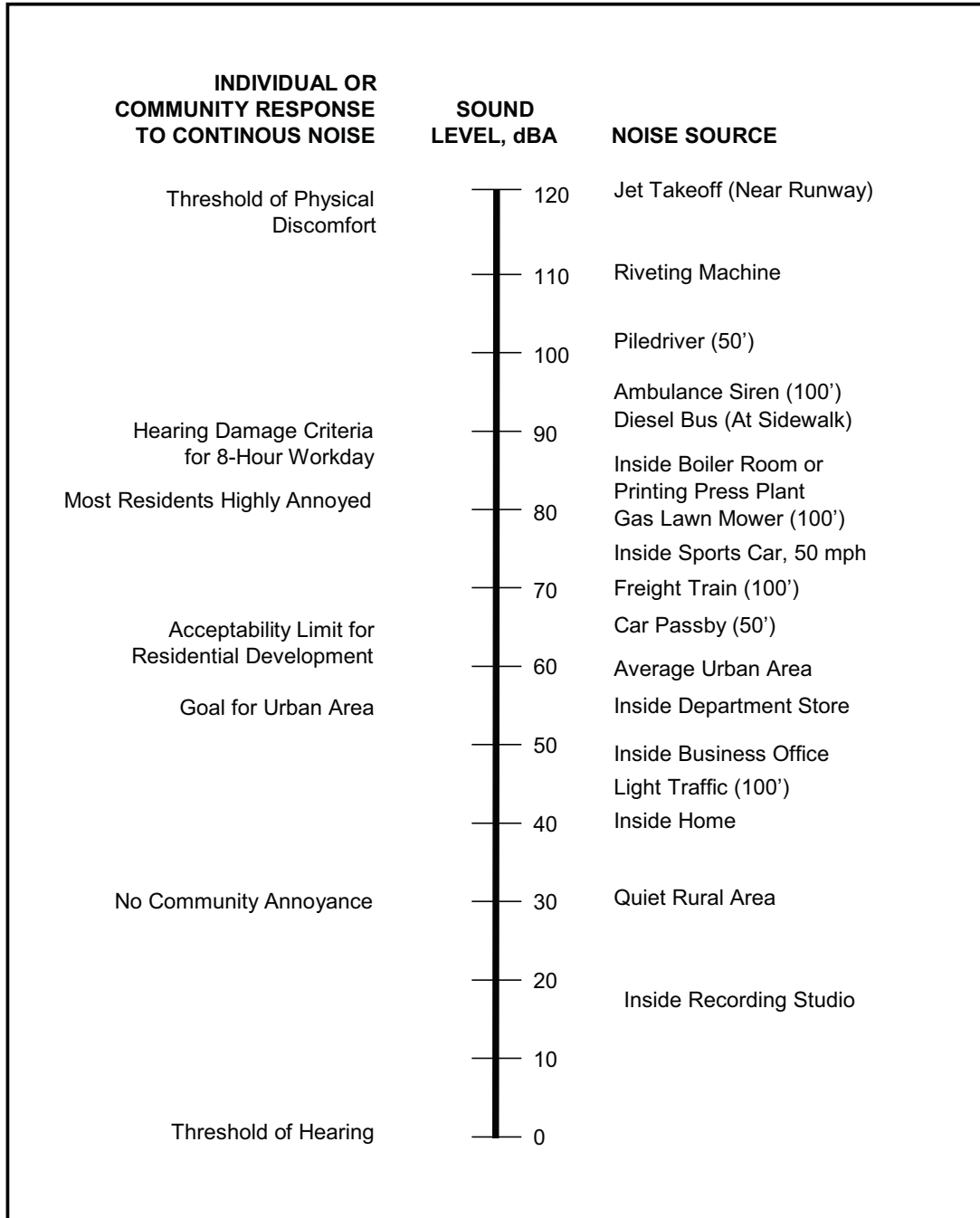


Figure 1. Typical Sound Levels of Noise Sources and Expected Reactions

noise level. Another long-term noise descriptor is the Community Noise Equivalent Level (CNEL or L_{den}). The CNEL is a 24-hour average noise level based on the daytime, evening and nighttime hourly average noise levels, with a 5 dB penalty added to each of the three evening hourly average noise levels and a 10 dB penalty added to each of the nine hourly nighttime average noise levels. The CNEL is used primarily in the State of California.

Noise from Typical Construction Equipment and Operations

The equivalent sound level (L_{eq}) as it relates to construction activity depends on several factors including machine power, the manner of operation and the amount of time the equipment is operated over a given time period. The following provides information on typical levels generated by various construction equipment and provides guidance on determining the noise from construction activities.

The most dominant source of noise for the majority of construction equipment is the engine exhaust, which is usually a diesel engine. However, for some construction work, such as impact pile driving or pavement breaking, the noise produced by the work process is the dominant source. Similar construction activities can create different noise impacts, depending on the location of the construction site, the terrain and other intervening features and the type of receptor populations in the vicinity of the construction site.

For most construction activities, different construction equipment operate in one of two modes, *stationary* and *mobile*. *Stationary* equipment are those that operate in one small area for one or more days at a time, with either a steady power cycle operation (e.g., pumps, generators, compressors, etc.) or a periodic impulsive operation (e.g., pile drivers, pavement breakers, etc.). *Mobile* equipment are those that frequently move around a much larger area of the construction site with power applied in a rapidly changing, non-steady fashion (e.g., bulldozers, loaders, etc.), or move to and from the construction site (e.g., haul trucks, material trucks, etc.). These variations in operating power and location add a great deal of complexity in characterizing the source noise level of a given piece of construction equipment. This complexity can be simplified by determining the equipment noise level at a 50-foot reference distance from the equipment operating at full power and adjusting its full power noise level according to the duty cycle or "usage factor" of the particular construction activity and project phase to determine the characteristic noise level of the operation during each phase.

The Society of Automotive Engineers has developed standardized procedures for measuring reference noise levels for the certification of mobile and stationary construction equipment. For informational purposes, typical 50-foot reference noise levels from representative pieces of construction equipment are listed in Figure 2. The major noise producing construction activities within the County would likely be pile driving, pavement breaking, demolition, excavation, earth moving, and haul trucking.

Noise-sensitive receptors that would be affected by such construction activities within the County are listed in Figure 3, along with their periods of greatest sensitivity to construction noise.

Construction activity noise is characterized by the combined duty cycle and resulting noise emission of each piece of equipment. The duty cycle is expressed in terms of the "usage factor" of the equipment, which is the percentage of time during the work period that the equipment is

operating under load or at near full power. In addition to the minute-by-minute variations in noise producing activities, construction projects are carried out in several different phases.

Figure 2. Typical Construction Equipment Noise

Equipment Type Noise Source	Dominant Noise Components ¹	50-Foot Noise Level (L _{eq}) dBA ^{2,3}	Noise Level Range (L _p) dBA ^{2,3}	50-Foot Maximum Noise Level (L _{max}) dBA ^{2,3}
Air Compressor (portable) ⁴	E, C, H, I	81	76-89	89
Air Compressor (stationary)	E, C, H, I	82	76-89	89
Auger, Drilled Shaft Rig	E, C, F, I, W	82	76-89	89
Backhoe	E, C, F, I, H, W	85	81-90	90
Bar Bender	E, P, W	82	78-88	85
Chain Saw	E, W, C	85	72-88	88
Compactor	E, C, F, I, W	82	81-85	85
Concrete Batch Plant	W, E, C	92	80-96	96
Concrete Mixer (small trailer)	W, E, C	67	65-68	68
Concrete Mixer Truck	E, C, F, W, T	85	69-89	89
Concrete Pump Trailer	E, C, H	82	74-84	84
Concrete Vibrator	W, E, C	76	68-81	81
Crane, Derrick	E, C, F, I, T	88	79-90	90
Crane, Mobile	E, C, F, I, T	83	80-85	85
Dozer (Bulldozer)	E, C, F, I, H	80	77-90	90
Excavator	E, C, F, I, H, W	87	83-92	92
Forklift	E, C, I, W	84	81-86	86
Front End Loader	E, C, F, I, H	79	77-90	90
Generator	E, C	78	71-87	87
Gradall	E, C, F, I, W	82	78-85	85
Grader	E, C, F, I, W	85	79-89	89
Grinder	W	80	75-82	82
Hydraulic Hammer	W, E, C, H	102	99-105	105
Impact Wrench	W, P	85	75-85	85
Jack Hammer	P, W, E, C	82	75-88	88
Paver	E, D, F, I	89	82-92	92
Pile Driver (Impact/ Sonic/ Hydraulic)	W, P, E	101 / 96 / 65	94-107 / 90-99 / 65	107 / 99 / 65
Pavement Breaker	W, E, P	82	75-85	85
Pneumatic Tool	P, W, E, C	85	78-88	88
Pump	E, C	76	68-80	80
Rock Drill	W, E, P	98	83-99	99
Roller	E, C, F, I, W	74	70-83	83
Sand Blaster	W, E, C, H, I	85	80-87	87
Saw, Electric	W	78	59-80	80
Scraper	E, C, F, I, W	88	82-91	91
Shovel	E, C, F, I, W	82	77-90	90
Tamper	W, E, C	86	85-88	88
Tractor	E, C, F, I, W	82	77-90	90
Trencher		83	81-85	85
Trucks (Under Load)	E, C, F, I, T	88	81-95	95
Water Truck	W, E, C, F, I, T	90	89-94	94
Other Equipment with Diesel	E, C, F, I	82	75-88	88

Note 1. Ranked noisy components. C=Casing, E=Exhaust, F=Fan, H=Hydraulics, I=Intake air, P=Pneumatic exhaust, T=Transmission, W=Work tool.

Note 2. Table based on EPA studies and measured data from various construction equipment and manufacturer's data.

Note 3. Equipment noise levels are at 50 feet from individual construction equipment and with no other noise contributors.

Note 4. Portable air compressor rated at 75 cfm or greater and operating at greater than 50 psi.

Each phase has a different equipment mix depending on the work to be accomplished. Some have more continuous noise, while others may have more impact type noise. Typical construction phases and equipment usage factors are given in Appendix A. Construction phase equipment usage factors, combined with receptor distances and equipment noise emissions, can be used in estimating future project noise. Such methods are discussed in Appendix B.

Figure 3. Noise-Sensitive Receptors

Receptor Description	Typical Sensitive Time Period
Hospitals, Nursing Homes (quasi-residential)	24 hours
Single-Family and Multi-Family Dwellings (residential)	Evening/Night
Hotels/Motels (quasi-residential)	Evening/Night
Schools, Churches, Libraries (when in use)	Daytime/Evening

Construction Noise Threshold Criteria

Standardized federal or state criteria have not been adopted for assessing construction noise impacts. Therefore, municipal planning criteria are generally developed and applied on a project-specific basis. Construction project noise criteria take into account the existing noise environment, the time-varying noise during the various phases of construction activities, the duration of the construction, and the adjacent land use.

Specific construction noise limits for noise-sensitive locations are not currently specified in the General Plan or administrative code of the County of Ventura. This document, therefore, is intended to establish construction noise thresholds and standard noise monitoring and control measures. These threshold criteria, monitoring and control measures shall be applied to all discretionary development projects (public projects, PD Permits, Conditional Use Permits) and should be applied to ministerial development permits by amending the county building code (including excavation and grading). Construction noise monitoring methods are discussed in Appendix C. Construction projects that exceed the noise threshold criteria at sensitive receptor sites, shall implement effective noise mitigation measures recommended by the manufacturers, considering the guidelines of Appendix D. The permitting agency/department shall review the construction noise mitigation measures and confirm compliance with the noise threshold criteria.

During daytime hours, construction work should comply with the County of Ventura construction noise threshold criteria (NTC), defined hereafter. Normally, no evening or nighttime construction activity is permitted in areas having noise-sensitive receptors. However, in the event such activity is deemed necessary and is permitted, reduced noise threshold criteria are provided for construction that must occur during evening and/or nighttime hours. Emergency construction work is exempt from these construction noise thresholds.

Daytime Construction¹ - Daytime (7:00 a.m. to 7:00 p.m. Monday through Friday, and from 9:00 a.m. to 7:00 p.m. Saturday, Sunday and local holidays) generally means any time period not

¹ These criteria only apply to the noise-sensitive receptors that are sensitive to noise impacts during the daytime. See Figure 3 (above).

specifically defined as a more noise-sensitive time period. The daytime construction noise threshold criteria are given in Figure 4. Depending on project duration, the daytime noise threshold criteria shall be the greater of the fixed $L_{eq}(h)$ limit (which includes non-construction evening and nighttime noise) or the measured ambient $L_{eq}(h)$ plus 3 dB.

Evening Construction² - Evening hours (7:00 p.m. to 10:00 p.m.) are more noise-sensitive time periods. Therefore, evening construction noise threshold criteria differ from the daytime criteria. Overall project construction noise, for the noise-sensitive hours specified, shall not exceed the noise threshold criteria listed in Figure 5, at the nearest noise-sensitive receptor area or 10 feet from the façade of the nearest noise-sensitive building.

Nighttime Construction³ - Nighttime hours (10:00 p.m. to 7:00 a.m. Monday through Friday, and from 10:00 p.m. to 9:00 a.m. Saturday, Sunday and local holidays) are the most noise-sensitive time periods. Therefore, nighttime and holiday construction noise threshold criteria differ from the daytime and evening criteria. Overall project construction noise, for the noise-sensitive hours specified, shall not exceed the noise threshold criteria listed in Figure 6, at the nearest noise-sensitive receptor area or 10 feet from the façade of the nearest noise-sensitive building.

Maximum Construction Noise - In addition, the construction-related, slow response, instantaneous maximum noise (L_{max}) shall not exceed the noise threshold criteria by 20 dBA more than eight times per daytime hour, more than six times per evening hour and more than four times per nighttime hour.

Determination of Compliance - The construction noise at sensitive receptor locations for each construction phase is due to the contributions of each piece of noise producing equipment used in each construction phase. The resulting construction phase noise must be compared to the construction noise threshold criteria to determine whether noise mitigation measures are required. The construction noise monitoring methods are discussed in Appendix C and typical noise mitigation measures are given in Appendix D. During periods of greater construction noise activity, the construction noise shall be monitored by a designated person trained in the use of a sound meter in accordance with the methods of Appendix C. When construction noise fails to comply with the appropriate noise threshold criteria, or falls out of compliance during use, the designated noise monitor shall immediately identify the non-compliant activity or equipment. Either the non-compliant activity must be stopped and the equipment removed from service or effective remedial action must be taken, similar to the noise mitigation measures of Appendix D, to restore compliance with the respective noise threshold criteria.

² These criteria apply to all noise-sensitive receptors. See Figure 3 (above).

³ These criteria only apply to the noise-sensitive receptors that are sensitive to noise impacts during the nighttime. See Figure 3 (above).

Figure 4. Daytime Construction Activity Noise Threshold Criteria

Construction Duration Affecting Noise-sensitive Receptors	Noise Threshold Criteria shall be the greater of these noise levels at the nearest receptor area or 10 feet from the nearest noise-sensitive building	
	Fixed Leq(h), dBA	Hourly Equivalent Noise Level (Leq), dBA ^{1,2}
0 to 3 days	75	Ambient Leq(h) + 3 dB
4 to 7 days	70	Ambient Leq(h) + 3 dB
1 to 2 weeks	65	Ambient Leq(h) + 3 dB
2 to 8 weeks	60	Ambient Leq(h) + 3 dB
Longer than 8 weeks	55	Ambient Leq(h) + 3 dB

Note 1. The instantaneous Lmax shall not exceed the NTC by 20 dBA more than 8 times per daytime hour.

Note 2. Local ambient Leq measurements shall be made on any mid-week day prior to project work.

Figure 5. Evening Construction Activity Noise Threshold Criteria

Receptor Location	Evening Noise Threshold Criteria shall be the greater of these noise levels at the nearest receptor area or 10 feet from the nearest noise-sensitive building	
	Fixed Leq(h), dBA	Hourly Equivalent Noise Level (Leq), dBA ^{1,2}
Residential	50	Ambient Leq(h) + 3 dB

Note 1. The instantaneous Lmax shall not exceed the NTC by 20 dBA more than 6 times per evening hour.

Note 2. Hourly evening local ambient noise measurements shall be made on a typical mid-week evening prior to project work.

Figure 6. Nighttime Construction Activity Noise Threshold Criteria

Receptor Location	Nighttime Threshold Criteria shall be the greater of these noise levels at the nearest receptor area or 10 feet from the nearest noise-sensitive building	
	Fixed Leq(h), dBA	Hourly Equivalent Noise Level (Leq), dBA ^{1,2}
Resident, Live-in Institutional	45	Ambient Leq(h) + 3 dB

Note 1. The instantaneous Lmax shall not exceed the NTC by 20 dBA more than 4 times per nighttime hour.

Note 2. Hourly nighttime local ambient noise measurements shall be made on a typical mid-week night prior to project work.

Construction Noise Complaints

The daytime noise threshold criteria for construction activity are provided in Figure 4. When evening and nighttime construction is necessary, evening and nighttime construction operations (except for emergency construction) must comply with the evening and nighttime noise threshold criteria listed in Figures 5 and 6, respectively. If these respective construction noise threshold criteria are exceeded, there would likely be strong adverse community reaction. However, noise complaints are possible, even when construction work complies with the criteria.

The project, therefore, must be prepared to appropriately respond to complaints and keep a "Complaint Log," noting date, time, complainant's name, nature of the complaint, and any corrective action taken. The project manager shall publish and distribute to the potentially affected community, a "Hot Line" telephone or pager number, that is attended during active construction working hours, for use by the disturbed public to register complaints.

Since noise complaints are still possible, even when construction work complies with the noise threshold criteria. Noise characteristics other than loudness (e.g., squeals, incessant banging, etc.) can result in complaints. An unusual number of construction noise complaints may require that additional noise mitigation be undertaken. Careful identification of the specific conditions of activity responsible for the noise complaints would be necessary to determine additional appropriate mitigation measures. Appendix D suggests typical measures to be considered for greater mitigation than previously implemented. Proper measures shall be applied before continuing the activity responsible for the unusual number of complaints. For especially difficult cases, the assistance of a qualified construction noise control consultant may be required.

APPENDICES

- A. Typical Equipment Noise, Construction Phases and Use Factors**
- B. Estimating Construction Equipment and Project Noise**
- C. Construction Noise Monitoring**
- D. Construction Noise Mitigation Measures**

Appendix A

Typical Equipment Noise, Construction Phases and Use Factors

Figure A-1. Typical Construction Equipment Noise

Equipment Type Noise Source	Dominant Noise Components ¹	50-Foot Noise Level (L _{eq}) dBA ^{2,3}	Noise Level Range (L _p) dBA ^{2,3}	50-Foot Maximum Noise Level (L _{max}) dBA ^{2,3}
Air Compressor (portable) ⁴	E, C, H, I	81	76-89	89
Air Compressor (stationary)	E, C, H, I	82	76-89	89
Auger, Drilled Shaft Rig	E, C, F, I, W	82	76-89	89
Backhoe	E, C, F, I, H, W	85	81-90	90
Bar Bender	E, P, W	82	78-88	85
Chain Saw	E, W, C	85	72-88	88
Compactor	E, C, F, I, W	82	81-85	85
Concrete Batch Plant	W, E, C	92	80-96	96
Concrete Mixer (small trailer)	W, E, C	67	65-68	68
Concrete Mixer Truck	E, C, F, W, T	85	69-89	89
Concrete Pump Trailer	E, C, H	82	74-84	84
Concrete Vibrator	W, E, C	76	68-81	81
Crane, Derrick	E, C, F, I, T	88	79-90	90
Crane, Mobile	E, C, F, I, T	83	80-85	85
Dozer (Bulldozer)	E, C, F, I, H	80	77-90	90
Excavator	E, C, F, I, H, W	87	83-92	92
Forklift	E, C, I, W	84	81-86	86
Front End Loader	E, C, F, I, H	79	77-90	90
Generator	E, C	78	71-87	87
Gradall	E, C, F, I, W	82	78-85	85
Grader	E, C, F, I, W	85	79-89	89
Grinder	W	80	75-82	82
Hydraulic Hammer	W, E, C, H	102	99-105	105
Impact Wrench	W, P	85	75-85	85
Jack Hammer	P, W, E, C	82	75-88	88
Paver	E, D, F, I	89	82-92	92
Pile Driver (Impact/ Sonic/ Hydraulic)	W, P, E	101 / 96 / 65	94-107 / 90-99 / 65	107 / 99 / 65
Pavement Breaker	W, E, P	82	75-85	85
Pneumatic Tool	P, W, E, C	85	78-88	88
Pump	E, C	76	68-80	80
Rock Drill	W, E, P	98	83-99	99
Roller	E, C, F, I, W	74	70-83	83
Sand Blaster	W, E, C, H, I	85	80-87	87
Saw, Electric	W	78	59-80	80
Scraper	E, C, F, I, W	88	82-91	91
Shovel	E, C, F, I, W	82	77-90	90
Tamper	W, E, C	86	85-88	88
Tractor	E, C, F, I, W	82	77-90	90
Trencher		83	81-85	85
Trucks (Under Load)	E, C, F, I, T	88	81-95	95
Water Truck	W, E, C, F, I, T	90	89-94	94
Other Equipment with Diesel	E, C, F, I	82	75-88	88

Note 1. Ranked noisy components. C=Casing, E=Exhaust, F=Fan, H=Hydraulics, I=Intake air, P=Pneumatic exhaust, T=Transmission, W=Work tool.

Note 2. Table based on EPA studies and measured data from various construction equipment and manufacturer's data.

Note 3. Equipment noise levels are at 50 feet from individual construction equipment and with no other noise contributors.

Note 4. Portable air compressor rated at 75 cfm or greater and operating at greater than 50 psi.

Figure A-2
Typical Domestic Housing Construction Equipment and Use Factors

Equipment Item	50-Foot Leq, dBA	Mitigated ¹ Leq, dBA	Highest Hourly Use Percentage per Construction Phase				
			Clear	Excavate	Base	Build	Finish
Air Compressor	81	75	--2	10	--	--	25
Backhoe	85	75	2	4	--	--	2
Concrete Mixer	85	75	--	--	4	8	16
Concrete Pump	82	75	--	--	--	--	--
Concrete Vibrator	76	75	--	--	--	--	--
Crane, Derrick	88	75	--	--	--	--	--
Crane, Mobile	83	75	--	--	--	10	4
Dozer	80	75	4	8	--	--	4
Generator	78	75	4	--	--	--	--
Grader	85	75	5	--	--	--	2
Jack Hammer	82	75	--	--	--	--	3
Loader	79	75	4	8	--	--	4
Paver	89	80	--	--	--	--	3
Pile Driver	101	95	--	--	--	--	--
Pneumatic Tool	85	80	--	--	4	10	4
Pump	76	75	--	4	7	--	--
Rock Drill	98	80	--	1	--	--	0.5
Roller	74	74	--	--	--	--	4
Saw, Electric	78	75	--	--	4 (2) 3	10 (2)	4 (2)
Scraper	88	80	5	--	--	--	1
Shovel	82	75	--	2	--	--	--
Truck	88	75	16	40	--	--	16

Note 1. Estimated level obtainable by quieter methods or equipment and implementing feasible noise controls.

Note 2. "--" indicates typically zero or very little use during construction phase.

Note 3: Numbers in parentheses are greatest multiple number of same items in use.

Figure A-3
Typical Large Building and Institutional Construction Equipment and
Use Factors

Construction Equipment	50-Foot Leq, dBA	Mitigated ¹ Leq, dBA	Highest Hourly Use Percentage per Construction Phase				
			Clear	Excavate	Base	Build	Finish
Air Compressor	81	75	--2	100 (2) 3	100 (2)	100 (2)	40 (2)
Backhoe	85	75	04	16	--	--	4
Concrete Mixer	85	75	--	--	40	40	16
Concrete Pump	82	75	--	--	40	8	8
Concrete Vibrator	76	75	--	--	40	10	4
Crane, Derrick	88	75	--	--	--	16	4
Crane, Mobile	83	75	--	--	--	16 (2)	4 (2)
Dozer	80	75	16	40	--	--	16
Generator	78	75	40 (2)	100 (2)	--	--	--
Grader	85	75	8	--	--	--	2
Jack Hammer	82	75	--	10	4	4	4
Loader	79	75	16	40	--	--	16
Paver	89	80	--	--	--	--	10
Pile Driver	101	95	--	--	4	--	--
Pneumatic Tool	85	80	--	--	4	16 (2)	4 (2)
Pump	76	75	--	100 (2)	100 (2)	40	--
Rock Drill	98	80	--	4	--	--	0.5
Roller	74	74	--	--	--	--	--
Saw, Electric	78	75	--	--	4 (3)	100 (3)	--
Scraper	88	80	55	--	--	--	--
Shovel	82	75	--	40	--	--	--
Truck	88	75	16 (2)	40	--	--	16

Note 1. Estimated level obtainable by quieter methods or equipment and implementing feasible noise controls.

Note 2. "--" indicates typically zero or very little use during construction phase.

Note 3: Numbers in parentheses are greatest number of same items in use during any hour.

Figure A-4
Typical Commercial and Industrial Construction Equipment and Use Factors

Construction Equipment	50-Foot Leq, dBA	Mitigated ¹ Leq, dBA	Highest Hourly Use Percentage per Construction Phase				
			Clear	Excavate	Base	Build	Finish
Air Compressor	81	75	--2	100	40	40	40
Backhoe	85	75	4	16	--	--	4
Concrete Mixer	85	75	--	--	40	16	16
Concrete Pump	82	75	--	--	40	--	8
Concrete Vibrator	76	75	--	--	--	--	--
Crane, Derrick	88	75	--	--	--	4	2
Crane, Mobile	83	75	--	--	--	8	4
Dozer	80	75	4	16	--	--	4
Generator	78	75	40	40	--	--	--
Grader	85	75	5	--	--	--	2
Jack Hammer	82	75	--	10	4	4	4
Loader	79	75	16	16	--	--	4
Paver	89	80	--	--	--	--	12
Pile Driver	101	95	--	--	4	--	--
Pneumatic Tool	85	80	--	--	4	10 (3) 3	4 (3)
Pump	76	75	--	40	100 (2)	40	--
Rock Drill	98	80	--	4	--	--	5
Roller	74	74	--	--	--	--	10
Saw, Electric	78	75	--	--	4 (2)	10 (2)	--
Scraper	88	80	14	--	--	--	8
Shovel	82	75	--	20	--	--	6
Truck	88	75	16 (2)	16 (2)	--	--	16

Note 1. Estimated level obtainable by quieter methods or equipment and implementing feasible noise controls.

Note 2. "--" indicates typically zero or very little use during construction phase.

Note 3: Numbers in parentheses are greatest number of same items in use during any hour.

Figure A-5
Typical Public Works and Roadway Construction Equipment and Use Factors

Construction Equipment	50-Foot Leq, dBA	Mitigated ¹ Leq, dBA	Highest Hourly Use Percentage per Construction Phase				
			Clear	Excavate	Base	Build	Finish
Air Compressor	81	75	--2	100 (2) ³	40	40	40 (2)
Backhoe	85	75	4	40	--	--	16
Concrete Mixer	85	75	--	--	16 (2)	40 (2)	16 (2)
Concrete Pump	82	75	--	--	--	--	--
Concrete Vibrator	76	75	--	--	--	--	--
Crane, Derrick	88	75	--	10	4	4	--
Crane, Mobile	83	75	--	--	--	16	--
Dozer	80	75	4	40	--	--	16
Generator	78	75	100 (2)	40 (2)	40 (2)	40	40 (2)
Grader	85	75	8	--	--	20	8
Jack Hammer	82	75	--	--	--	4	10 (2)
Loader	79	75	4	40	--	--	16
Paver	89	80	--	--	--	--	--
Pile Driver	101	95	--	--	--	--	--
Pneumatic Tool	85	80	--	--	4 (2)	10	4
Pump	76	75	--	40 (2)	100 (2)	40 (2)	--
Rock Drill	98	80	--	4	--	--	--
Roller	74	74	--	--	100	--	--
Saw, Electric	78	75	--	--	4 (2)	--	--
Scraper	88	80	8		20	8	8
Shovel	82	75	4	40	4	--	4
Truck	88	75	16 (2)	16	40 (2)	--	16 (2)

Note 1. Estimated level obtainable by quieter methods or equipment and implementing feasible noise controls.

Note 2. "--" indicates typically zero or very little use during construction phase.

Note 3: Numbers in parentheses are greatest number of same items in use during any hour.

Appendix B

Estimating Construction Project Noise

For project planning purposes, where the potential for noise impacts exist, it is possible to estimate the potential construction noise impacts in advance by developing an inventory of noisy construction equipment and processes for the various stages and phases of the project. Such screening methods assist construction project managers and estimators in planning for the potential need for noise mitigation.

Construction Equipment Inventory

An inventory of the number and type of noisy construction equipment to be used during planned daytime, evening and nighttime construction activities, their associated noise emissions, and other relevant information can be included on Figure B-2, Construction Phase Receptor Noise Estimation Worksheet. Using this form, construction noise levels for the various phases of construction can be estimated using the phase's equipment inventory, the typical 50-foot equipment noise levels (listed in Figure A-1 of Appendix A) along with typical by-phase construction equipment use factors, provided in Figures A-1 through A-5 of Appendix A.

Construction Noise Estimates

Calculations can be performed to estimate the daytime, evening and nighttime maximum (L_{max}) and one-hour energy average (L_{eq}) noise levels expected at the noise-sensitive location, based on the typical maximum equipment noise levels listed in Figure A-1 in Appendix A. The calculations are to be made for the various activities and locations where project construction noise will result in the greatest noise impact (*noise levels at other sensitive locations can also be calculated, if necessary*). The calculations and results should be entered on a form similar to Figure B-2, the Construction Phase Receptor Noise Estimation Worksheet. The result of a sample construction noise calculation is provided in Figure B-1.

The following calculation procedures may be used to estimate the construction noise by phase.

1. Calculate each phase's L_{max} according to the following method:

$$L_{max} [\text{equipment type}] = ML - 20 \log_{10} (D/50)$$

where:

ML = Typical single equipment maximum noise level (L_{max}) at 50 feet, in dBA.
(*This may be replaced by a measured, under-load, maximum noise level*).

D = Distance from the equipment to the noise-sensitive location, in feet.

Repeat the above calculation for each item of potentially noisy equipment. Then, select the noisiest individual pieces of equipment that operate in their loudest mode at the very same time and combine them logarithmically to estimate the overall maximum construction noise level (L_{max}) at the noise-sensitive location(s) for each project phase, as follows:

$$L_{max} [\text{overall project at receptor}] = 10 \log_{10} (\sum 10^{(L_{max} [\text{equipment type}] / 10)})$$

Construction Noise Threshold Criteria

2. Calculate each phase's one-hour L_{eq} according to the method recommended by the U.S. Federal Highway Administration ("Highway Construction Noise: Measurement, prediction and mitigation," U.S. Department of Transportation, Federal Highway Administration Special Report, March 1977), as follows:

First, the construction phase's one-hour L_{eq} is to be calculated at the sensitive receptor location for each item of potentially noisy equipment using the following equation:

$$L_{eq}(h) [\text{equipment type}] = ML - 20 \log_{10} (D/50) + 10 \log_{10} (N \times HP/100)$$

where:

ML = Typical single equipment maximum noise level (L_{max}) at 50 feet, in dBA. *(This may be replaced by a measured, under-load, maximum noise level).*

D = Shortest distance (feet) from the equipment type to the nearest noise-sensitive location, or if a more sensitive receptor is further away, to the noise-sensitive receptor with the greatest impact. If the distance is measured in meters, use the ratio D/15 instead of D/50.

N = Maximum number of the same equipment type operating hourly on the project during the construction phase.

HP = "Hourly percentage," expressed as the greatest nominal percent of time that the equipment is operated under load at the project site. This factor is based on EPA values or is estimated based on past experience with similar projects. Thus, the effective usage factor is (EUF) = $N \times HP/100$.

Repeat the above calculations for each item of potentially noisy equipment. Then, the individual contribution of every item of equipment are to be combined logarithmically to obtain the overall construction hourly L_{eq} at the noise-sensitive location(s) for each project phase, as follows:

$$L_{eq}(h) [\text{overall project at receptor}] = 10 \log_{10} (\sum 10^{(\text{one-hour } L_{eq} [\text{equipment type}] / 10)})$$

3. The calculated L_{max} and $L_{eq}(h)$ levels can then be compared with the construction noise threshold criteria. Where it is estimated that the criteria would be exceeded, noise mitigation planning can be undertaken.

**Figure B-1.
Example of Construction Phase Receptor Noise Estimation Worksheet**

A	B	C	D	E	F	G	H	I	J	K
<u>Construction Phase Equipment Item</u>	<u># of Items</u>	<u>Item L_{max} at 50 feet, dBA</u>	<u>Dist. to Receptor</u>	<u>Item Usage Percent</u>	<u>Usage Factor</u>	<u>Dist. Adj., dB</u>	<u>Usage Adj., dB</u>	<u>Receptor Item L_{max}, dBA</u>	<u>Receptor Item L_{eq}, dBA</u>	<u>Log₁₀ Sums of Receptor Item L_{eq} Yield the Combined Receptor L_{eq}, dBA</u>
1. DOZER	1	90	100	70	0.70	-6	-1.6	84.0	82.4	82.4
2. GRADER	1	89	200	75	0.75	-12	-1.2	77.0	75.7	83.3
3. SCRAPER	2	91	150	20	0.40	-6	-4.0	81.5	77.5	84.4
4. WATER TRUCK	1	94	50	5	0.05	-6	-13.0	94.0	81.0	86.0
5.										
6.										
							Log Sum	94.7	86.0	

**Figure B-2.
Construction Phase Receptor Noise Estimation Worksheet**

A	B	C	D	E	F	G	H	I	J	K
<u>Construction Phase Equipment Item</u>	<u># of Items</u>	<u>Item L_{max} at 50 feet, dBA</u>	<u>Dist. to Receptor.</u>	<u>Item Usage Percent</u>	<u>Usage Factor</u>	<u>Dist. Correction on dB</u>	<u>Usage Adj. dB</u>	<u>Receptor Item L_{max}, dBA</u>	<u>Receptor Item Leg. dBA</u>	<u>Log10 Sums of Receptor Item Leg</u> <u>Yield the Combined Receptor Leg, dBA</u>
1.										
2.										
3.										
4.										
5.										
6.										
									Log Sum	

Appendix C

Construction Noise Monitoring

This appendix outlines the noise measurement instrumentation and monitoring procedures.

Noise Measurement Instruments

1. Noise measurements shall be performed with an instrument that is in compliance with or exceeds the criteria for a Type 2 (General Purpose) Sound Level Meter, as defined in the most recent revision of ANSI Standard S1.4.2.
2. Sound level meters shall be capable of measuring the slow response L_{max} and one-hour L_{eq} on the A-Weighted scale, as required by the construction noise threshold criteria and construction project noise limits. Where possible, integrating-type instruments may monitor the percentile (L_1 , L_{50} , etc.) noise levels, as well, to show construction noise statistics.
3. Sound level meters, microphones, and field calibrators shall be calibrated by a certified laboratory at least once a year. A valid certificate of calibration conformance shall be obtained and be available for each instrument before using sound level meters. Updated certificates shall be maintained following subsequent yearly calibrations and upon the completion of repairs to noise monitoring instruments.

Noise Measurement Procedure

1. The sound level meter shall be calibrated using an acoustic calibrator, according to the manufacturer's specifications, just before each measurement.
2. Except as otherwise indicated, measurements shall be performed using the A-weighting network and the slow response setting of the sound level meter.
3. Impulsive or impact noises shall be measured using the C-weighting network and the fast response setting of the sound level meter.
4. The measurement microphone shall be fitted with an appropriate windscreen and the sound level meter shall be placed at the location of the sensitive receptor with the microphone approximately 5 feet above the ground or floor and at least 10 feet away from any vertical surfaces.
5. Ambient noise measurements shall be taken during periods of the least noise-producing activity in the vicinity of noise sensitive locations that may be impacted by the construction operations. Ambient noise measurements shall be conducted for at least 20 minutes at representative locations for potentially impacted receptors.
6. Construction noise measurements shall be taken during periods of greatest noise-producing activity at noise sensitive locations in the vicinity of the construction site a minimum of once each shift and also after a sustained perceptible change in noise-producing construction activity or location. Noise measurements shall be conducted for at least 20 minutes each monitoring session.

7. Construction noise measurements shall coincide with daytime, evening and nighttime daily time periods of maximum noise-generating construction activity and shall be taken or repeated during the construction phase or activity that has the greatest potential to create annoyance or to exceed applicable noise regulations and restrictions.
8. If, in the estimation of the person performing the measurements, non-project related noise sources contribute significantly to the measured noise level, additional measurements (with the same non-project noise source contributions) shall be repeated when project construction is inactive to determine the non-project ambient background noise level.
9. Noise data shall be logged using the Noise Measurement Report Form and maintained for at least six months following the completion of the construction project. The type of measurement (e.g. baseline ambient, on-going construction, major change, etc.) shall be noted on the form.
10. Monitoring locations shall be clearly identified and sketched on the Noise Measurement Report Form along with the locations of and monitoring site distances to the noise-sensitive receptors.
11. Construction equipment operating during the noise monitoring period and their locations shall be identified and sketched on the Noise Measurement Report Form, along with the locations of and equipment distances to the noise sensitive receptors.

Figure C-1 Noise Measurement Report Form - Part A

Project: _____ Contract No(s): _____

Date: _____ Day of Week: _____ Time: _____

Monitoring Site Number: _____ Monitoring Site Address: _____

Measurement Taken By: _____ of _____

Approximate Wind Speed: _____ mph [km/hr]. Approximate Wind Direction: From the _____

Approximate distance of Sound Level Meter from Receptor Location: _____

Approximate distance of Sound Level Meter from Construction Site: _____

(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): Residential / Institutional Commercial / Recreational

Sound Level Meter: Make and Model: _____ Serial Number _____

Meter Setting: A-Weighted Sound Level (SLOW) C-Weighted Sound Level (FAST) for Impacts

Duration of Measurement: _____ (at least 20 Minutes)

Check the measurement purpose:

Baseline condition Ongoing construction Major change Complaint response

Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
CALIBRATION		n/a	n/a
Leq			
Lmax			
L1		n/a	n/a
L8 or L10 (circle which)		n/a	n/a
L25		n/a	n/a
L50		n/a	n/a
L90		n/a	n/a

Field Notes:

- 1. _____
- 2. _____
- 3. _____
- 4. _____

Complete all that apply below:

Active Equipment: _____

(List construction equipment that contribute to measured noise)

Complaint Response: _____

(Describe complaint; include log-in number)

Complaint Mitigation Measure(s): _____

(Describe complaint response mitigation)

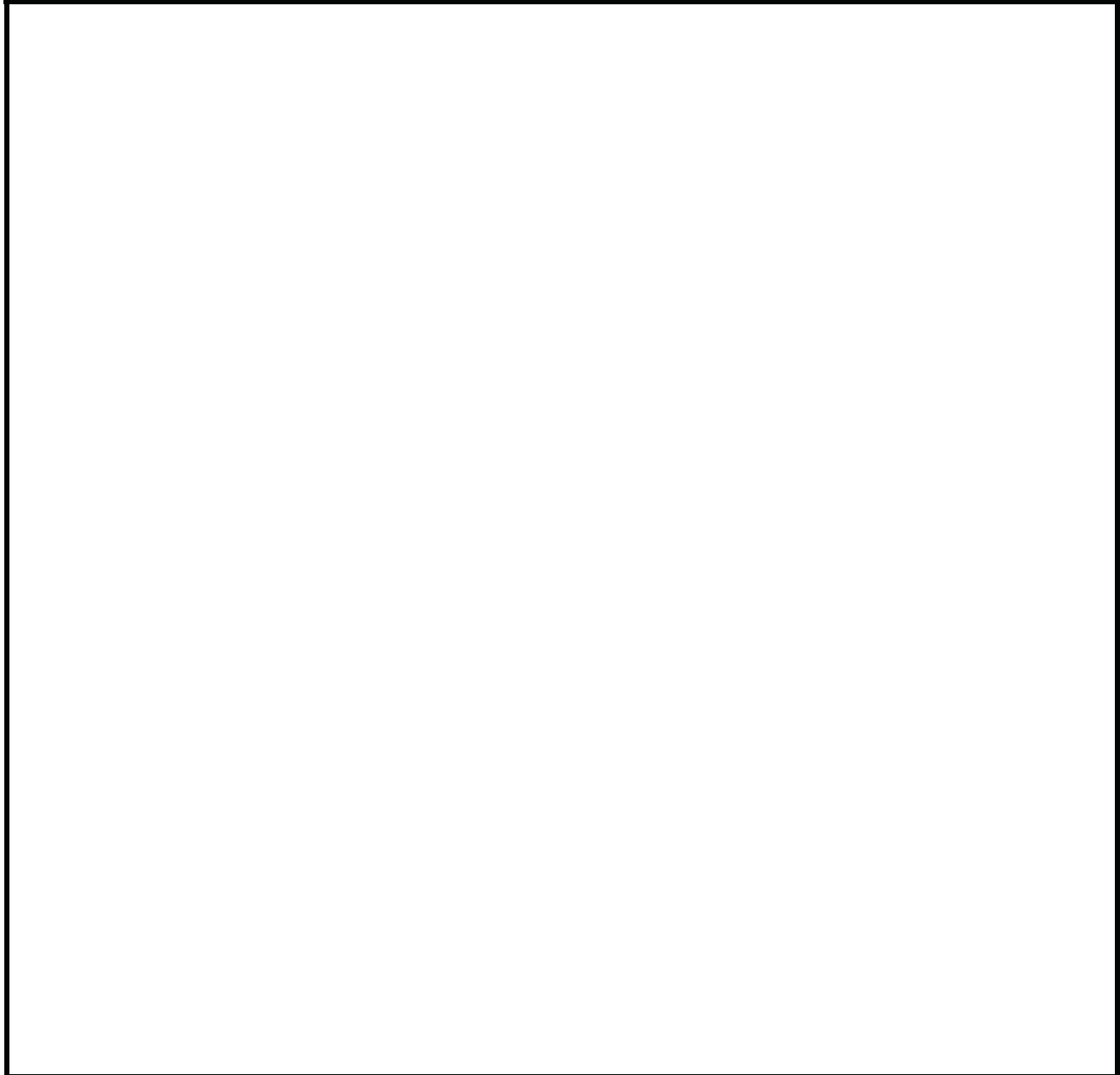
**Figure C-2
Noise Measurement Report Form - Part B**

Project: _____ Contract No(s): _____

Date: _____ Day of Week: _____ Time: _____

Monitoring Site Number: _____ Monitoring Site Address: _____

Site Map



Field Notes:

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____

Noise Monitor's Signature: _____ Date: _____

Appendix D

Construction Noise Mitigation Measures

Construction noise is to be monitored at the most affected sensitive receptor location (10 feet from the construction activity side of a noise-sensitive receptor building or at the outdoor living area). Noise measurements are to be conducted using the procedures in this Appendix and the measurement results logged in a format similar to that of the Construction Noise Mitigation Form in this Appendix. Where the construction noise threshold criteria are exceeded, at noise-sensitive locations, noise abatement measures, such as those in this Appendix, are to be implemented and adequate noise reduction achieved to bring the construction activities into compliance with the construction noise threshold criteria.

Construction noise mitigation may be achieved using various combinations of equipment source noise reduction, propagation path noise reduction and sensitive receptor noise reduction.

Construction Equipment Source Noise Reduction Methods

Feasible and reasonable equipment noise mitigation measures may need to be implemented to meet the construction noise threshold criteria. Examples of equipment source noise reduction methods to reduce construction noise impacts at sensitive receptor locations are listed in this section. The implementation of one or more of these measures, along with those of the other sections, may be necessary to achieve compliance with the construction noise threshold criteria.

Equipment Noise Reduction:

1. Minimize the use of impact devices, such as jackhammers, pavement breakers, and hoe rams. Where possible, use concrete crushers or pavement saws rather than hoe rams for tasks such as concrete or asphalt demolition and removal.
2. Pneumatic impact tools and equipment used at the construction site shall have intake and exhaust mufflers recommended by the manufacturers thereof, to meet relevant noise limitations.
3. Provide impact noise producing equipment, i.e. jackhammers and pavement breaker(s), with noise attenuating shields, shrouds or portable barriers or enclosures, to reduce operating noise.
4. Line or cover hoppers, conveyor transfer points, storage bins, and chutes with sound-deadening material (e.g., apply wood or rubber liners to metal bin impact surfaces).
5. Provide upgraded mufflers, acoustical lining or acoustical paneling for other noisy equipment, including internal combustion engines.
6. Avoid blasting and impact-type pile driving.
7. Use alternative procedures of construction and select a combination of techniques that generate the least overall noise and vibration. Such alternative procedures could include the following:
 - a. Use electric welders powered by remote generators.

Construction Noise Threshold Criteria

- b. Mix concrete at non-sensitive off-site locations, instead of on-site.
 - c. Erect prefabricated structures instead of constructing buildings on-site.
8. Use construction equipment manufactured or modified to reduce noise and vibration emissions, such as:
- a. Electric instead of diesel-powered equipment.
 - b. Hydraulic tools instead of pneumatic tools.
 - c. Electric saws instead of air- or gasoline-driven saws.
9. Turn off idling equipment when not in use for periods longer than 30 minutes.

Operations Noise Reduction Methods:

In no case shall the following mitigation measures alter the project's responsibility for compliance with applicable Federal, state, and local safety ordinances and regulations, as well as project-specific construction specifications.

1. Operate equipment so as to minimize banging, clattering, buzzing, and other annoying types of noises, especially near residential and other noise sensitive areas during the evening and nighttime hours.
2. To the extent feasible, configure the construction site in a manner that keeps noisier equipment and activities as far as possible from noise sensitive locations and nearby buildings.
3. All back-up alarms should be disarmed at 8:00 p.m. and not reactivated until 7:00 a.m. on weekdays and 9:00 a.m. on weekends and local holidays. Signal persons and strobe lights must be used during periods when the back-up alarms are disarmed.
4. Maximize physical separation, as far as practicable, between noise generators and noise receptors. Separation includes following measures:
 - a. Provide enclosures for stationary items of equipment and noise barriers around particularly noisy areas at the project site.
 - b. Locate stationary equipment to minimize noise and vibration impacts on community.
5. Minimize noise-intrusive impacts during most noise sensitive hours.
 - a. Plan noisier operations during times of highest ambient noise levels.
 - b. Keep noise levels relatively uniform; avoid excessive and impulse noises.
 - c. Turn off idling equipment.
 - d. Phase in start-up and shut-down of project site equipment.

Construction Noise Threshold Criteria

6. Select truck routes for material delivery and spoils disposal so that noise from heavy-duty trucks will have a minimal impact on noise sensitive receptors. Proposed truck haul routes are to be submitted to the County Transportation Division for approval.
 - a. Conduct truck loading, unloading, and hauling operations so noise and vibration are kept to a minimum.
 - b. Route construction equipment and vehicles carrying soil, concrete or other materials over streets and routes that will cause the least disturbance to residents in the vicinity of construction sites and haul roads.
 - c. Do not operate haul trucks on streets within 250 feet of school buildings during school hours or hospitals and nursing homes at any time, without a variance.
 - d. Submit haul routes and staging areas to the County Transportation Division for approval, at least 30 days before the required usage date.

A summary of equipment noise control methods is given in Figure D-1. Incorporating the construction noise mitigation methods and techniques would reduce construction noise and vibration impacts.

Construction Noise Propagation Path Reduction Methods

Feasible and reasonable propagation path mitigation measures may need to be implemented to help meet the construction noise threshold criteria. Examples of propagation path noise reduction methods to reduce construction noise impacts at sensitive receptor locations are listed in this section. The implementation of one or more of these measures, along with those of the other sections, may be necessary to achieve compliance with the construction noise threshold criteria.

Construction Site Noise Barriers

Moveable noise barriers can be positioned and relocated along a construction corridor, while fixed noise barriers can be located at a fixed construction site.

Moveable Construction Noise Blankets

1. For lesser noise reduction, install moveable frame-mounted noise curtains, blankets or enclosures adjacent to or around noisy equipment where required to meet the project noise limits. Noise control shields shall be made of a durable, flexible composite material featuring a noise barrier layer bonded to a weather-protected, sound-absorptive material on the construction-activity side of the noise shield.
2. Provide readily removable and moveable noise shields so that they may be repositioned, as necessary, to provide noise abatement for non-stationary and stationary processes along a construction corridor as the construction process moves.

Construction Noise Threshold Criteria

**Figure D-1
Some Construction Equipment Noise Sources and Typical Mitigation Measures**

Construction Equipment	Source(s) of noise	Possible mitigation measures (may need to be discussed with equipment manufacturer)		Possible alternative construction methods₁
Impact Pile Driver	Pneumatic/diesel hammer or steam winch vibrator driver	Enclose hammer head and top of pile in an acoustical screen or acoustical blankets, apply acoustical damping to sheet steel piles to reduce vibration and resonant noise		(1) Use alternative methods of pile driving, e.g. drill and drop, poured in place, hydraulic driver, etc. (2) Alternative methods of soil retention and ground improvement, e.g. retaining walls, ground anchors, shafts formed of pre-cast concrete segments sunk into the ground, etc.
	Impact on pile	Use resilient pad between pile and hammer head.		
	Crane cables, pile guides and attachments	Careful alignment of pile and rig, lubricate screeching cables, guides and pulleys.		
	Power unit	Install more efficient exhaust silencer; apply acoustical damping and protected internal noise absorption layers to vibrating panels and covers. Manufacturer's access panels should be kept closed. Use properly ventilated acoustical enclosures where possible.		
Bulldozer Compactor Crane Dump truck Excavator Grader Loader Scraper Shovel	Engine	Install more efficient exhaust silencer.	Apply acoustical damping and protected internal noise absorption layers to vibrating panels and covers.	
		Enclosure panels should be kept closed.		
		Operate without excessive engine revving.		
Compressor Generator	Engine	Install more efficient exhaust silencer.	Locate the compressor or generator within an acoustical enclosure or behind an absorptive, three-sided sound wall.	Use electric motors instead of diesel or gasoline engines to drive compressors. If there is no electrical supply, use a reduced noise compressor or generator. A remote electrical generator can be used to supply power to several pieces of equipment.
	Compressor or generator	Apply acoustical damping and protected noise absorption layers to internal of vibrating panels and covers. Enclosure panels should be kept closed		

Construction Noise Threshold Criteria

Pneumatic concrete breaker and tools	Tool	Install a muffler and acoustic shroud to reduce noise without impairing efficiency	Operate equipment inside a portable acoustical enclosure	Use rotary drill and buster. Use hydraulic and electric equipment. A thermal lance can be used to burn holes in concrete and to cut through large sections of concrete. For breaking large areas of concrete, use equipment which breaks concrete by bending it.
	Bit	Use a damped bit to eliminate "bit ringing." Noise drops as surface is broken through		
	Air line	Stop all air line leaks.		
	Motor	Install muffler to pneumatic saws		
Power saws	Vibration of blade and cut material	Keep saw blades sharp. Use a damped blade. Use blades with random tooth spacing. Tightly clamp material during cutting, if possible		
Rotary drills, diamond drilling and boring	Drive motor and bit	Use equipment inside an acoustical enclosure.		Use thermal lance
Construction Equipment	Source(s) of noise	Possible mitigation measures (may need to be discussed with equipment manufacturer)		Possible alternative construction methods¹
Riveters	Impact on rivets	Enclose working area with acoustic barriers.		Use high tensile steel bolts instead of rivets
Cartridge gun	Cartridge blast	Use a muffled cartridge gun.		Drilled attachments
Pump	Engine or motor, pulsing, cavitation	Use an acoustical enclosure (allow for engine cooling and exhaust) or use motor suction and girdle mutes.		
Batch plant	Engine	Install more efficient silencer on diesel or gasoline engine. Enclose engine.	Locate batch or mixing plant as far as possible from noise-sensitive receptors.	Use electric motor instead of diesel or gasoline engine
	Concrete mixer	Filling		
Cleaning		Do not hammer the drum.		
Hammer	Impact on nail			Use screw attachment
Impact chisel	Impact on stock			Use rotary hand milling machine
Materials handling	Impact of material	Prevent high material drops. Shield drop areas, especially for conveyor systems		Cover surface with resilient material or unload remotely
Steam cleaning	Escaping jet of steam, interaction with surface	Pass escaping steam through silencer or screen the cleaning area and use quieter nozzles.		

Note 1. Care should be taken when selecting a quieter process, so that ancillary equipment noise sources, such as cranes and compressors, are mitigated so they do not become new dominant noise sources.

Construction Noise Threshold Criteria

3. Installation and Maintenance:

- a. Install noise blanket shields with sound-absorptive surfaces facing the noise source.
- b. Maintain the moveable noise shields and repair damage that occurs, including, but not limited to, keeping noise shields clean and free from graffiti, and maintaining structural integrity. Promptly repair or replace gaps, holes, and weaknesses in the noise shields, and openings between, or under the noise shield blankets.

Moveable Construction Noise Barriers

1. For greater noise reduction, install moveable paneled noise shields, barriers or enclosures adjacent to or around noisy equipment where required to meet the project noise limits. Noise control shields shall be made of panels featuring a solid panel with a weather-protected, sound-absorptive material on the construction-activity side of the noise shield.
2. Provide readily removable and moveable noise shields so that they may be repositioned, as necessary, to provide noise abatement for non-stationary and stationary processes along a construction corridor as the construction process moves.
3. Installation and Maintenance:
 - a. Install paneled noise shields with sound-absorptive surfaces facing the noise source.
 - b. Maintain the moveable noise shields and repair damage that occurs, including, but not limited to, keeping noise shields clean and free from graffiti, and maintaining structural integrity. Promptly repair or replace gaps, holes, and weaknesses in the noise shields, and openings between, or under the noise shield panels.

Fixed Construction Noise Curtains

1. For lesser noise reduction, install frame-mounted sound noise control curtains or noise control blankets in locations adjacent to or around noisy equipment as required to meet the noise limits specified in this document and to shield the public from excessive construction noise. Noise control curtains shall be made of a durable, flexible composite material featuring a noise barrier layer bonded to a weather-protected, sound-absorptive material on one or both sides. The supporting structure shall be engineered and erected according to applicable codes.
2. Noise control curtains shall be installed, as necessary, to provide greater noise abatement for non-stationary and stationary processes.
3. Installation, Maintenance and Removal
 - a. Noise control curtains shall be installed without any gaps and with the sound absorptive side facing the construction activity area.
 - b. Maintain the noise control curtains and promptly repair any damage that may occur. Gaps, holes or weaknesses in the curtain, or openings between the curtain and the ground shall be promptly repaired.

Construction Noise Threshold Criteria

- c. The fixed noise control curtains and associated elements shall be completely removed and the site appropriately restored upon the conclusion of the construction activity.

Fixed Noise Control Barriers

1. For greater noise reduction, install solid noise control panels or enclosures in locations adjacent to or around noisy equipment as required to meet the noise threshold criteria specified in this document and to shield the public from excessive construction noise. Noise control panels shall be made of a solid, heavy noise barrier material with a weather-protected, sound-absorptive material on the construction-activity side of the barrier. The supporting structure shall be engineered and erected according to applicable codes.
2. Noise control panels shall be erected, as necessary, to provide greater noise abatement for non-stationary and stationary processes.
3. Installation, Maintenance, and Removal
 - a. Solid noise control panels shall be installed without any gaps and with the sound absorptive side facing the construction activity area.
 - b. Maintain the noise control panels and promptly repair any damage that may occur. Gaps, holes or weaknesses in the panels or openings between the panels and the ground shall be promptly repaired.
 - c. The fixed noise control panels and associated elements shall be completely removed and the site appropriately restored upon the conclusion of the construction activity.

Sensitive Receptor Construction Noise Reduction Methods

Feasible and reasonable receptor noise mitigation measures may be implemented to meet the construction noise threshold criteria. Examples of receptor noise reduction methods to reduce construction noise impacts at sensitive receptor locations are listed in this section. The implementation of one or more of these measures, along with those of the other sections, may be necessary to achieve compliance with the construction noise threshold criteria.

Receptor Building Interior Noise Control Measures

1. For noise reduction at fixed, mid-term construction sites, install removable secondary acoustic window inserts (i.e., Quiet Window, or equal) to existing windows in sensitive receptor buildings as required to meet the noise threshold criteria specified in this document.
2. For noise reduction at fixed, long-term construction sites, install permanent replacement acoustic windows with an STC rating 5 dB greater than the construction noise reduction needed. Where sliding doors are exposed to excessive construction noise, acoustic sliding patio doors may also need to be installed. Careful attention must be taken to seal the frame airtight to the existing structure.
3. Install properly fitted, tubular compression-type weather strip gasketing around the door frames (jamb and head) and install automatic drop thresholds and threshold plates to exposed swinging doors. Careful attention must be taken to seal the existing door frame airtight to the existing structure.

Construction Noise Threshold Criteria

Moveable Exterior Receptor Noise Control Barriers

1. For construction along a construction corridor, install moveable paneled noise shields or barriers at noise sensitive receptor sites. Noise control shields shall be made of panels featuring a solid panel with a weather-protected, sound-absorptive material on the construction-activity side of the noise shield.
2. Provide readily removable and moveable noise shields so that they may be repositioned, as necessary, to provide greater noise abatement along a construction corridor as the construction process moves.
3. Installation and Maintenance:
 - a. Install paneled noise shields with sound-absorptive surfaces facing the noise source.
 - b. Maintain the moveable noise shields and repair damage that occurs, including, but not limited to, keeping noise shields clean and free from graffiti, and maintaining structural integrity. Promptly repair or replace gaps, holes, and weaknesses in the noise shields, and openings between, or under the noise shield panels.

Fixed Exterior Receptor Noise Control Barriers

1. For noise reduction at fixed construction sites, install solid noise control panels at sensitive receptor locations as required to meet the noise threshold criteria specified in this document and to shield the sensitive receptor from excessive construction noise. Noise control panels shall be made of a solid, heavy noise barrier material with a weather-protected, sound-absorptive material on the construction-activity side of the barrier. The supporting structure shall be engineered and erected according to applicable codes.
2. Noise control panels shall be erected, as necessary, to provide greater noise abatement for non-stationary and stationary processes at fixed construction sites.
3. Installation, Maintenance, and Removal
 - a. Solid noise control panels shall be installed without any gaps and with the sound absorptive side facing the construction activity area.
 - b. Maintain the noise control panels and promptly repair any damage that may occur. Gaps, holes or weaknesses in the panels or openings between the panels and the ground shall be promptly repaired.
 - c. The fixed noise control panels and associated elements shall be completely removed and the site appropriately restored upon the conclusion of the construction activity.

Figure D-3. Construction Noise Mitigation Form

Part B – Propagation Path Mitigation Measures

Project: _____ Contract No(s): _____ Construction Phase: _____

Measured By: _____ of _____ Date: _____ Time: _____

(Attach Construction Vicinity Sketch)

Sensitive Receptor Measurement Location during Construction Activities <u>Without</u> Mitigation	Measured Noise Level at Receptor Location, (dBA)*			
	Ambient L _{eq} (dBA)	L _{eq} w/ Project (dBA)	Ambient L _{max} (dBA)	L _{max} w/ Project (dBA)
Noise Threshold Criteria >	n/a		n/a	
1.				
2.				
3.				
4.				

Propagation Path Noise Abatement Measures

1. _____
2. _____
3. _____
4. _____

Anticipated Results

1. _____
2. _____
3. _____
4. _____

Sensitive Receptor Measurement Location during Construction Activities With <u>Additional Mitigation</u>	Measured Noise Level at Receptor Location, (dBA)*			
	Ambient L _{eq} (dBA)	L _{eq} w/ Project (dBA)	Ambient L _{max} (dBA)	L _{max} w/ Project (dBA)
Noise Threshold Criteria >	n/a		n/a	
1.				
2.				
3.				
4.				

Figure D-4. Construction Noise Mitigation Form

Part C – Sensitive Receptor Measures

Project: _____ Contract No(s): _____ Construction Phase: _____

Measured By: _____ of _____ Date: _____ Time: _____

(Attach Construction Vicinity Sketch)

Sensitive Receptor Measurement Location during Construction Activities <u>Without</u> Mitigation	Measured Noise Level at Receptor Location, (dBA)*			
	Ambient L _{eq} (dBA)	L _{eq} w/ Project (dBA)	Ambient L _{max} (dBA)	L _{max} w/ Project (dBA)
Noise Threshold Criteria >	n/a		n/a	
1.				
2.				
3.				
4.				

Sensitive Receptor Noise Abatement Measures

Anticipated Results

1. _____
2. _____
3. _____
4. _____

Sensitive Receptor Measurement Location during Construction Activities <u>With Additional Mitigation</u>	Measured Noise Level at Receptor Location, (dBA)*			
	Ambient L _{eq} (dBA)	L _{eq} w/ Project (dBA)	Ambient L _{max} (dBA)	L _{max} w/ Project (dBA)
Noise Threshold Criteria >	n/a		n/a	
1.				
2.				
3.				
4.				

APPENDIX C
AMBIENT NOISE MEASUREMENT LOGS

Ambient Noise Summary

Ambient Noise Levels + Significance Thresholds

Ambient Measurement: 24-Hour Reference Location									
Date(s)	Duration	Time Start	Time Stop	Average Noise Level (L_{eq})			Peak Noise Level (L_{max})		
				Daytime ^A	Evening ^A	Nighttime ^A	Daytime ^A	Evening ^A	Nighttime ^A
7/22/2014 - 7/23/2014	24-hours	2:32:48 PM	2:32:48 PM	50.0	41.2	43.3	56.4	44.9	50.7

Ambient Measurements & Correction Factors: Receptors N1, N2 and N3 (15-Minute)							
Receptor	Date	Duration	Time Start	Time Stop	15-Minute Measured L_{eq}	24-Hour L_{eq} (during same period)	L_{eq} Correction Factor ^B
R1 (Southwest)	7/23/2014	15-Min	3:12:00 PM	3:42:00 PM	53.0	51.2	1.8
R2 (South)	7/23/2014	15-Min	3:49:00 PM	4:19:00 PM	48.3	51.9	-3.6
R3 (Southeast)	7/23/2014	15-Min	4:28:00 PM	4:58:00 PM	46.9	52.9	-6

Ambient Noise Determination @ Receptors R1, R2, and R3									
Receptor	Date(s)	Time Start	Time Stop	Average Noise Level (L_{eq})			Peak Noise Level (L_{max})		
				Daytime ^A	Evening ^A	Nighttime ^A	Daytime ^A	Evening ^A	Nighttime ^A
R1 (Southwest)	7/23/2014	3:12:00 PM	3:42:00 PM	51.8	43.0	45.1	58.2	46.7	52.5
R2 (South)	7/23/2014	3:49:00 PM	4:19:00 PM	46.4	37.6	39.7	52.8	41.3	47.1
R3 (Southeast)	7/23/2014	4:28:00 PM	4:58:00 PM	44.0	35.2	37.3	50.4	38.9	44.7

A - Daytime is 6:00 AM-7:00 PM. Evening is 7:00 PM-10:00 PM. Nighttime is 10:00 PM-7:00 AM. These timeframes correspond with the significance thresholds presented in the Ventura County *General Plan Noise Element*.

B - The dBA change shown above was calculated by comparing the measured L_{eq} values at each short-duration (15-min) receptor/monitoring locations to the measured L_{eq} at the long-duration (24-hour) reference location during the same time periods. The difference (i.e. correction factor) shown above is then applied to the measured 24-hour L_{eq} data points to quantify the daytime, evening, and nighttime noise levels at each receptor location (R1, R2 and R3).

OPERATIONAL SIGNIFICANCE THRESHOLDS

Ambient Noise Level Summary: Average Noise (L_{eq}) & Ventura County Significance Thresholds							
Receptor	Receptor Type	Average Noise Level (L_{eq})			Ventura County Significance Thresholds ^B		
		Daytime ^A	Evening ^A	Nighttime ^A	Daytime ^A	Evening ^A	Nighttime ^A
R1 (Southwest)	Residential	51.8	43.0	45.1	55.0	50.0	48.1
R2 (South)	Residential	46.4	37.6	39.7	55.0	50.0	45.0
R3 (Southeast)	Residential	44.0	35.2	37.3	55.0	50.0	45.0

Ambient Noise Level Summary: Peak Noise (L_{max}) & Ventura County Significance Thresholds							
Receptor	Receptor Type	Peak Noise Level (L_{max})			Ventura County Significance Thresholds ^B		
		Daytime ^A	Evening ^A	Nighttime ^A	Daytime ^A	Evening ^A	Nighttime ^A
R1 (Southwest)	Residential	58.2	46.7	52.5	61.2	50.0	55.5
R2 (South)	Residential	52.8	41.3	47.1	55.8	50.0	50.1
R3 (Southeast)	Residential	50.4	38.9	44.7	55.0	50.0	47.7

A - Daytime is 6:00 AM-7:00 PM. Evening is 7:00 PM-10:00 PM. Nighttime is 10:00 PM-7:00 AM. These timeframes correspond with the significance thresholds presented in the Ventura County *General Plan Noise Element*.

B - The Ventura County *General Plan Noise Element* presents significance thresholds for daytime, evening, and nighttime. Significance thresholds depend on ambient noise levels in the area during the defined time period. If ambient levels are lower than the thresholds, the "fixed" thresholds are utilized. If ambient levels exceed the fixed thresholds, the "ambient level +3 decibels (dB)" is utilized. The significance thresholds are summarized below:

- Daytime (6:00 AM-7:00 PM) = L_{eq} of 55 dBA or ambient noise level +3 dBA
- Evening (7:00 PM-10:00 PM) = L_{eq} of 50 dBA or ambient noise level +3 dBA
- Nighttime (10:00 PM-6:00 AM) = L_{eq} of 45 dBA or ambient noise level +3 dBA

CONSTRUCTION SIGNIFICANCE THRESHOLDS

Daytime Construction Noise Threshold Criteria			
Receptor	Daytime L_{eq} (dBA)	Average Noise Level (L_{eq}) Significance Threshold (dBA)	Peak Noise Level (L_{max}) Significance Threshold (dBA)
R1 (Southwest)	51.8	55	75
R2 (South)	46.4	55	75
R3 (Southeast)	44.0	55	75

Note: For construction periods longer than 8 weeks, the significance threshold for noise impacts is either the "fixed" threshold of 55 dBA or the "ambient level +3 decibels (dB)" when ambient noise levels exceed the fixed threshold. Since the ambient daytime noise levels at Facility receptors are below the "fixed" threshold, 55 dBA is utilized. Additionally, the peak noise impacts (L_{max}) shall not exceed this significance threshold by +20 dBA more than 8 times per daytime hour.
(Source: Ventura County *Construction Noise Threshold Criteria*)

24-Hour Reference Location
7/22/2014 - 7/23/2014

Serial Number BIJ090010
Start Time 2:32:48 PM 7/22/2014
Run Length 24:00:00 5529600
Stop Time 2:32:48 PM 7/23/2014

UNIT REV R13B

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description	Units	Value	
Pre-Cal Level	dB	114	
Date		14:29:26	22-Jul-2014
Post-Cal Level	dB		
Date			
ReCert Date		Unavailable	

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	5	5
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	8	8
Weighting		A	A
Time Response		SLOW	SLOW

Sound Curve Configuration	
Description	Value
Mode	OFF
Type	Noise Criterion (NC)
Criterion	NA
Method	Tangency

Measurement	Units	Meter 1	Meter 2	16	31.5	63	125	250	500	1000	2000	4000	8000	16000
		Broadband	Broadband	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz
Lavg	dB	47.7	47.6	19.1	28.9	36.6	38.2	37.5	39.7	42.8	37.9	33.3	35.4	35.3
Lmax	dB	80.6	86.4	39.5	54.4	61.1	63	67.5	68.2	78.5	74.5	70.7	64.6	54.2
Lmin	dB	35.3	32.1	10.5	11.2	20	24.4	23.2	23.3	26.3	29.3	32.3	35.3	35.3
Lpk	dB	110.3	110.3	50.6	65.6	73	75.2	77.3	90.6	100.3	105.6	102.5	100.6	93.6
TWA	dB	55.6	55.5	27	36.8	44.5	46.1	45.4	47.7	50.7	45.8	41.2	43.3	43.2
PTWA	dB	47.7	47.6	19.1	28.9	36.6	38.2	37.5	39.7	42.8	37.9	33.3	35.4	35.3
DOSE	%	0.85	0.84	0.02	0.06	0.18	0.23	0.21	0.28	0.43	0.22	0.12	0.15	0.15
PDOSE	%	0.28	0.28	0.01	0.02	0.06	0.08	0.07	0.09	0.14	0.07	0.04	0.05	0.05
SEL	dB	129.6	129.6	101.1	110.9	118.6	120.2	119.5	121.7	124.7	119.9	115.3	117.4	117.3
EXP	p2s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Measurement	Units	Value
LDN	dB	N/A
CNEL	dB	N/A
TAKTMAX (5sec)	dB	N/A
LC-A	dB	N/A

Exceedence	Units	Value
L02	dB	57.5
L10	dB	52.1
L50	dB	44.9
L90	dB	37.7

24-Hour Reference Location
7/22/2014 - 7/23/2014

		Meter 1			Meter 2		
		Count	Percent	Time	Count	Percent	Time
Overload	(OL)	0	0	00:00:00	0	0	00:00:00
Under-Range	(UR)	1043949	18.87	04:31:51	1085029	19.62	04:42:33
Upper Limit	(UL)	0	0	00:00:00	0	0	00:00:00

Exceedence Table

	0	1	2	3	4	5	6	7	8	9
0	80.6	59.6	57.5	56.1	55.2	54.4	53.8	53.3	52.8	52.4
10	52.1	51.8	51.5	51.2	51	50.8	50.6	50.3	50.1	50
20	49.8	49.6	49.4	49.2	49	48.9	48.7	48.5	48.4	48.2
30	48	47.9	47.7	47.5	47.4	47.2	47	46.9	46.7	46.5
40	46.4	46.2	46.1	45.9	45.8	45.6	45.5	45.3	45.2	45
50	44.9	44.8	44.7	44.5	44.4	44.3	44.2	44	43.9	43.7
60	43.6	43.5	43.3	43.2	43	43	42.8	42.6	42.4	42.3
70	42.2	42.1	41.9	41.6	41.4	41.3	41.1	40.8	40.4	40
80	40	39.9	39.5	38.9	38.4	38.3	38.2	38.2	38.2	38.2
90	37.7	37	35.9	35.3	35.3	35.2	35.2	35.2	35.2	35.2

Raw Stat Table

dB	Count
35.3	324231
35.4	67316
35.5	14926
35.6	10105
35.7	7793
35.8	6840
35.9	6291
36	6092
36.1	6472
36.2	2348
36.3	5520
36.4	5609
36.5	5653
36.6	5327
36.7	5254
36.8	5768
36.9	5938
37	5945
37.1	6267
37.2	6384
37.3	6529
37.4	6261
37.5	7318
37.6	7429
37.7	7495
37.8	8179
37.9	8872
38	10854
38.1	13613
38.2	21506
38.3	201546
38.4	64664
38.5	16656
38.6	12652
38.7	11286
38.8	10167

Statistics Table

	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
35				5.86	1.21	0.26	0.18	0.14	0.12	0.11
36	0.11	0.11	0.04	0.09	0.1	0.1	0.09	0.09	0.1	0.1
37	0.1	0.11	0.11	0.11	0.11	0.13	0.13	0.13	0.14	0.16
38	0.19	0.24	0.38	3.64	1.16	0.3	0.22	0.2	0.18	0.19
39	0.18	0.18	0.08	0.13	0.17	0.19	0.19	0.22	0.26	0.32
40	0.56	1.61	0.35	0.25	0.24	0.22	0.22	0.23	0.23	0.23
41	0.25	0.3	0.39	0.94	0.98	0.43	0.37	0.35	0.37	0.4
42	0.46	0.59	0.51	1.31	0.79	0.54	0.5	0.47	0.49	0.56
43	0.76	1.32	0.67	0.58	0.55	0.58	0.67	0.86	1.11	0.65
44	0.6	0.61	0.68	0.95	1.01	0.66	0.64	0.69	0.92	0.93
45	0.69	0.71	0.53	0.65	0.72	0.62	0.65	0.86	0.68	0.59
46	0.61	0.78	0.59	0.56	0.68	0.69	0.58	0.59	0.65	0.54
47	0.57	0.65	0.56	0.58	0.64	0.54	0.64	0.56	0.62	0.69
48	0.65	0.73	0.53	0.41	0.64	0.63	0.58	0.63	0.59	0.62
49	0.56	0.61	0.55	0.59	0.54	0.53	0.54	0.52	0.53	0.52
50	0.51	0.52	0.52	0.48	0.48	0.49	0.47	0.47	0.48	0.47
51	0.49	0.46	0.43	0.2	0.43	0.38	0.37	0.36	0.35	0.34
52	0.32	0.32	0.31	0.28	0.26	0.25	0.25	0.25	0.24	0.24
53	0.22	0.21	0.21	0.2	0.2	0.2	0.2	0.2	0.2	0.18
54	0.17	0.18	0.18	0.06	0.15	0.15	0.14	0.13	0.12	0.13
55	0.12	0.13	0.12	0.12	0.12	0.12	0.11	0.11	0.12	0.1
56	0.09	0.09	0.09	0.08	0.08	0.08	0.09	0.08	0.07	0.07

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Ln1 Meter1	Ln2 Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 (24-Hour)	0:01:00	0:01:00		51.3	83.6	62.8	48.1	60.8	52.4	51	83.6	66.2	46.8
	0:02:00	0:02:00		59.1	110.3	76.2	48.9	72.6	65.8	56.1	110.3	85	47.2
	0:03:00	0:03:00		49.9	76.6	54	47.3	53.3	51.5	49.8	76.5	58.3	46.3
	0:04:00	0:04:00		50.7	85.7	56.6	47.5	55.8	52.9	50.6	85.7	63.2	46.2
	0:05:00	0:05:00		52.9	80.4	59	48.3	58	56.9	52.7	80.4	60.5	47.2
	0:06:00	0:06:00		48.8	65.8	51.8	46.6	51.5	50.5	48.8	65.7	54.6	46.1
	0:07:00	0:07:00		48.8	64.8	51.7	46.2	51.1	50.5	48.8	64.7	53.2	45.6
	0:08:00	0:08:00		50.3	69.4	55	47	54.6	52.7	50.2	69.3	57.4	45.9
	0:09:00	0:09:00		50	68.7	54.8	45.4	54.1	52.6	49.9	68.7	56.6	44.3
	0:10:00	0:10:00		50.5	69.9	54.6	44.8	53.6	53	50.6	70	56.2	43.8
	0:11:00	0:11:00		51.3	70.4	57.2	46.9	57	53.8	51.2	70.4	59.6	45.7
	0:12:00	0:12:00		49.5	69.3	54.6	44.9	54.3	53.3	49.5	69.3	57.8	43.7
	0:13:00	0:13:00		49.6	67.2	53.1	46.6	52.8	51.7	49.5	67.2	56.7	45.5
	0:14:00	0:14:00		48.5	64.7	51.6	46.3	51.2	49.8	48.5	64.7	53.2	45.5
	0:15:00	0:15:00		48.4	65.8	52.5	45.7	52.4	50.4	48.5	65.8	54.3	44.7
	0:16:00	0:16:00		49.7	70.6	56.1	45.6	55.6	53.4	49.6	70.6	58.5	45.1
	0:17:00	0:17:00		47.2	65.8	49.1	44.7	48.9	48.3	47.2	65.6	53.1	43.9
	0:18:00	0:18:00		50.8	79.9	64.1	45.9	61.9	54.1	50.5	79.8	67.6	45.1
	0:19:00	0:19:00		51.1	71.8	56.3	46.7	55.4	54	51	71.8	60.1	45.4
	0:20:00	0:20:00		49.7	69	56	46.2	54.2	52.1	49.6	68.9	59.3	44.6
	0:21:00	0:21:00		49	67	53.3	45.7	52.7	51.2	49	66.9	55.7	45.1
	0:22:00	0:22:00		52	70	57.2	48.2	57.1	56.2	51.9	69.9	58.6	47.4
	0:23:00	0:23:00		51	70.6	55.8	48.2	54.9	53.3	50.9	70.5	58.9	47.4
	0:24:00	0:24:00		50.1	69.2	53.4	45.3	53.2	52.4	50	69.3	56.4	44.6
	0:25:00	0:25:00		49.2	65.9	51.3	45.6	51.1	50.7	49.2	65.9	54	45
	0:26:00	0:26:00		51.4	71.4	57.7	45.6	57.2	53.9	51.3	71.3	59.7	45.1
	0:27:00	0:27:00		50.6	70.3	56	47.8	55.1	53.6	50.5	70.3	59.3	46.7
	0:28:00	0:28:00		51.5	70.7	56.5	48.3	55.9	54	51.4	70.7	59.4	47.2
	0:29:00	0:29:00		63.8	83.7	68.7	47.8	68.2	67.4	63.7	83.7	70.2	46.7
	0:30:00	0:30:00		55	74.1	61.5	48.4	61.1	59.7	54.8	74.1	62.2	47.5
	0:31:00	0:31:00		51.1	69.9	54.8	47.7	54.3	53.3	51	70	58.2	47
	0:32:00	0:32:00		50.6	71.5	56.9	48.2	55.5	52.7	50.5	71.5	59.9	46.9
	0:33:00	0:33:00		51.3	78.1	58	47.5	57.1	53.9	51.1	78.1	64.3	45.9
	0:34:00	0:34:00		50.3	67.9	54.1	46.8	53.5	52.1	50.3	67.9	56.7	45.7
	0:35:00	0:35:00		52.7	69.6	58.6	47.9	57.9	55.1	52.6	69.6	60.5	47.1
	0:36:00	0:36:00		49.1	67.2	51.6	47.3	51.2	50.3	49.1	67.2	54.5	46.3
	0:37:00	0:37:00		50.1	66.9	52.5	47.8	52.2	51.6	50.1	66.9	55.2	47.1
	0:38:00	0:38:00		49.3	67.2	52.2	46.8	51.6	51.1	49.3	67.1	54.7	46.1
	0:39:00	0:39:00		49.6	66.9	53.5	45.9	52.7	51.7	49.6	66.9	55.6	45.1
	0:40:00	0:40:00		49.2	67.8	52.9	45.6	51.9	50.9	49.2	67.7	55.9	44.2
	0:41:00	0:41:00		49.3	67.4	52.1	47.3	51.6	50.8	49.3	67.4	55.8	46.5
	0:42:00	0:42:00		50.3	69.6	53.7	47.1	53.1	52.2	50.2	69.6	57.1	46.1
	0:43:00	0:43:00		49.9	71.3	54.9	46.9	53.8	52	50	71.3	58	46.2
	0:44:00	0:44:00		52.3	75.5	58.9	48.5	57.8	55.1	52.2	75.4	62.8	47.9
	0:45:00	0:45:00		51	70	54.6	46.6	54.1	53.5	51	69.9	56.7	45.9
	0:46:00	0:46:00		51.2	73.9	57.4	47.6	56.4	54.9	51	73.9	61.9	46.8
	0:47:00	0:47:00		50.4	71.8	54.6	46.6	53.8	52.4	50.2	71.7	59.1	45.7
	0:48:00	0:48:00		50.5	71	52.9	47.9	52.5	52	50.4	71	57.8	47.3
0:49:00	0:49:00		48.9	65.5	50.6	47	50.3	49.9	48.9	65.4	53.1	46.2	
0:50:00	0:50:00		48.1	67	50.2	45.7	49.9	49.5	48.1	67	52.7	44.8	
0:51:00	0:51:00		50.2	67.1	52.8	47.3	52.6	52	50.1	67.1	55	46.3	
0:52:00	0:52:00		49.8	68.6	52.7	47.3	52.3	51.4	49.8	68.5	55.9	46.6	
0:53:00	0:53:00		51.7	72.8	56.1	48.1	55.8	54.8	51.8	72.7	58.7	47.4	
0:54:00	0:54:00		54.9	72.2	57.4	51.5	57.1	56.4	54.8	72.1	59.1	49.9	
0:55:00	0:55:00		52.1	72.8	55.8	48.7	55.4	54.3	51.9	72.7	58.1	47.8	
0:56:00	0:56:00		50.4	69.7	55.5	46.8	54.3	52.9	50.2	69.7	57.6	45.8	
0:57:00	0:57:00		51.1	69.4	55.2	48.2	54.9	53.9	51.1	69.4	57.2	47.7	
0:58:00	0:58:00		50.8	72.5	54.8	48.4	54.3	52.2	50.7	72.5	57.7	47.1	
0:59:00	0:59:00		51.1	69.3	55.3	48.7	54.8	53.3	50.9	69.3	58.6	46.3	
1:00:00	1:00:00		51.3	73.7	57.8	47.8	57.5	54.3	51.2	73.7	62	46.4	
1:01:00	1:01:00		51.3	68.6	54.7	48.2	54.4	53.7	51.3	68.6	56.9	47.2	
1:02:00	1:02:00		53.2	73.4	58.8	48	58.1	56.2	53.1	73.4	62	46.9	
1:03:00	1:03:00		51.3	68.2	54.7	48	54.1	53.3	51.1	68.2	56.9	47.1	
1:04:00	1:04:00		50.8	69.2	54.6	46.9	54.5	53.8	50.7	69.2	56.9	46.1	
1:05:00	1:05:00		52.4	70.2	56.9	48.5	56.6	54.3	52.4	70.2	59	47.8	
1:06:00	1:06:00		53.6	88.2	61.6	47.4	60.1	56.9	53.3	88.2	66	46.6	
1:07:00	1:07:00		50.7	68	53.3	47.3	53	52.4	50.7	68	56.6	45.7	
1:08:00	1:08:00		51.5	71.1	57.1	46.5	56.7	54.8	51.3	71	58.2	46	
1:09:00	1:09:00		49.7	72	56.6	46.5	55.7	52.3	49.7	72	60.1	45.7	
1:10:00	1:10:00		53.3	72.6	57.1	49	56.8	55.7	53.1	72.5	60.1	47.9	
1:11:00	1:11:00		51.2	68.8	53.3	50	52.8	52.1	51.2	68.7	54.7	48.9	
1:12:00	1:12:00		50.2	67.8	54.7	47.7	53.8	52.2	50.1	67.8	57.1	46.3	
1:13:00	1:13:00		50.8	67.9	53.4	47.3	53	52.3	50.7	67.9	55.5	46.9	
1:14:00	1:14:00		51.4	69.9	56.4	47.7	55.5	53.6	51.3	69.8	59.2	47.6	
1:15:00	1:15:00		50.8	70.1	55.6	47.3	55.1	53.7	50.8	70	57.6	46.6	
1:16:00	1:16:00		51.7	72.3	57.9	48.3	56.4	54.1	51.6	72.2	60.1	47	
1:17:00	1:17:00		51.3	68.6	55	48	54.3	53.2	51.2	68.6	57.7	47.1	
1:18:00	1:18:00		50.8	74.8	56.6	46.8	54.8	53.5	50.6	74.7	61.2	45.8	
1:19:00	1:19:00		51.2	71.1	56	48.2	55.2	52.9	51.1	71	59.2	46.6	
1:20:00	1:20:00		53.7	70.9	57.2	49.1	56.8	56	53.6	70.8	58.9	47.8	
1:21:00	1:21:00		49.8	65	51.2	47.7	51.2	51	49.8	65	52.2	47.2	
1:22:00	1:22:00		52.9	74.1	58.4	48.4	57.9	55	52.9	74.1	62.6	47.8	
1:23:00	1:23:00		52.2	73.7	58	49.2	57.6	56	52	73.7	62.5	48.6	
1:24:00	1:24:00		50.5	77.2	57	46.3	56.7	53.4	50.4	77.1	62.6	45.3	
1:25:00	1:25:00		50.4	70.3	56	46.4	55.3	53.4	50.4	70.1	58.7	45.7	
1:26:00	1:26:00		53	74.9	57.5	47.8	57.1	55.7	52.8	74.9	60.9	47	
1:27:00	1:27:00		51.5	71.4	57.7	46.8	57.2	55.4	51.4	71.4	59.8	46.2	
1:28:00	1:28:00		51.6	73.2	57.5	48	56.7	54.9	51.5	73.2	60.1	47.1	
1:29:00	1:29:00		49.4	67.6									

1:32:00	1:32:00	49.4	65.6	52.7	46.7	52.5	51.3	49.4	65.7	53.9	45.5
1:33:00	1:33:00	53.6	75.5	57.5	46.5	57	56.2	53.5	75.4	60.9	46.2
1:34:00	1:34:00	51.9	70.2	55.5	49	55.2	53.9	51.9	70.1	58.9	47.7
1:35:00	1:35:00	52.9	72	57.9	47.6	56.9	55.7	52.7	71.9	61.6	45.9
1:36:00	1:36:00	48.7	69	52.4	46.6	51.8	50.9	48.7	69	54	45.8
1:37:00	1:37:00	51.4	74.8	58.6	46.2	57	55.7	51.3	74.7	61.8	45.5
1:38:00	1:38:00	51	69.8	55.7	47.8	55.3	53.8	50.8	69.7	58	46.6
1:39:00	1:39:00	51.6	71.9	55.1	47.2	55	54.5	51.5	71.9	59	45.7
1:40:00	1:40:00	50.8	67.8	54.5	47.4	53.9	52.6	50.7	67.7	56.5	45.8
1:41:00	1:41:00	51.8	73.1	57.6	46.9	57.2	55.9	51.7	73	61	45.6
1:42:00	1:42:00	50.8	71.2	55.8	46.5	54.8	53.9	50.7	71.2	59	45.7
1:43:00	1:43:00	52	73.7	56.3	48.6	55.8	54.5	52	73.6	58.8	46.6
1:44:00	1:44:00	55.8	73.6	59.6	50.9	59.4	58.5	55.6	73.6	61.7	49.5
1:45:00	1:45:00	54.2	72.7	58.2	49.7	58	57.3	54.2	72.7	60.8	47.7
1:46:00	1:46:00	54.6	74.5	58.5	49.9	57.7	57	54.3	74.4	61.9	47.2
1:47:00	1:47:00	50.6	68.8	55	46.8	54.7	53.5	50.5	68.8	56.3	45.8
1:48:00	1:48:00	52.3	73.6	59.1	46.1	58.4	56.7	52.2	73.6	62.4	45.3
1:49:00	1:49:00	53.6	76.5	60	46.4	59.5	56.8	53.5	76.5	62.9	46.1
1:50:00	1:50:00	51.7	72.2	56.7	48.2	56.3	54.3	51.6	72.1	58.8	46.6
1:51:00	1:51:00	52	75.8	57.4	47.9	56.1	54.7	51.8	75.8	60.1	46.7
1:52:00	1:52:00	51.9	72	56.9	47.6	55.8	55.1	51.8	72	60.7	46.5
1:53:00	1:53:00	53.9	75.2	57.7	49.8	56.5	55.5	53.8	75.2	61.6	48.5
1:54:00	1:54:00	51.7	69.6	54.9	48.4	54.5	53.8	51.5	69.6	56.6	47.5
1:55:00	1:55:00	52	72.1	56.6	48.6	56	54	52	72	60	48.1
1:56:00	1:56:00	49.2	67.4	52.3	46.7	51.8	50.6	49.2	67.4	55.3	45.8
1:57:00	1:57:00	52	75.5	58	47.9	57.1	55.5	52	75.4	62.4	47.2
1:58:00	1:58:00	51	70.4	55.4	47.8	55	53.1	51	70.3	57.7	47.1
1:59:00	1:59:00	49.6	68.4	54.5	47	53.8	51.3	49.6	68.3	56.1	46
2:00:00	2:00:00	50.5	70	53.5	48.1	53	52.2	50.4	70	56	47
2:01:00	2:01:00	52.9	79.4	59.1	49.1	57.9	54.8	52.9	79.4	64.2	48.4
2:02:00	2:02:00	51.5	71.9	55.5	49	54.6	53.5	51.3	71.8	60.1	48.1
2:03:00	2:03:00	50	66.1	52.7	48	52.5	51.5	50	66.1	53.9	47
2:04:00	2:04:00	49.9	65.3	52	48.2	51.8	50.7	49.9	65.3	54	47.6
2:05:00	2:05:00	50.9	69.5	56.9	47.6	54.5	53.2	51	69.5	59.6	46.8
2:06:00	2:06:00	60.7	84.7	70.3	52.6	69	67.2	60.5	84.7	73.3	50.3
2:07:00	2:07:00	52.3	74.3	55.4	49.5	55	54.1	52.2	74.3	58.5	48.6
2:08:00	2:08:00	53.3	71.4	57.1	49.9	56.6	55.5	53.3	71.2	59.3	49.3
2:09:00	2:09:00	51.3	71.1	55.4	48.8	54.9	53.6	51.2	71	58	48
2:10:00	2:10:00	60.4	90.3	69.3	51.1	68.8	67.8	60.2	90.3	71.6	50.7
2:11:00	2:11:00	54.6	75.3	58.2	51.5	57.8	56.7	54.5	75.3	61.5	50.7
2:12:00	2:12:00	49.8	67.8	54.4	46.7	54	53.2	49.8	67.8	55.6	46
2:13:00	2:13:00	50.1	67.7	53	48	52.5	51.8	50.1	67.7	55.6	47.2
2:14:00	2:14:00	50.5	68.5	52.8	48.3	52.6	52	50.4	68.5	55.3	47.2
2:15:00	2:15:00	51.5	71.1	56	48.4	54.8	53.3	51.4	71	58.8	47.3
2:16:00	2:16:00	48.3	72.4	54	45.7	53.3	51	48.4	72.3	58	45
2:17:00	2:17:00	51.8	70.2	54.5	49.2	54.1	53.7	51.7	70.1	57.8	48.2
2:18:00	2:18:00	50.8	74.1	55.2	47.7	54.7	52.8	50.7	74	58.3	46.9
2:19:00	2:19:00	50.2	68.6	52.7	47.5	52.3	51.6	50.1	68.6	55.9	47
2:20:00	2:20:00	51	68.4	54.6	49.2	53.9	52.7	51	68.3	58	47.9
2:21:00	2:21:00	50.8	70.2	55.9	48.1	54.8	53.1	50.7	70.2	59.8	47.5
2:22:00	2:22:00	51.9	69.5	54.6	49.2	54	53.5	51.7	69.4	57.7	48.3
2:23:00	2:23:00	49.4	68	52.8	47.6	51.7	51.1	49.4	67.9	55.8	46.2
2:24:00	2:24:00	48.8	64.8	51.1	47.3	50.7	49.9	48.8	65	54.6	46.1
2:25:00	2:25:00	50	74.4	55.3	46.1	53.9	52.1	49.9	74.3	59.8	45.6
2:26:00	2:26:00	50	67	52.8	47	52.4	51.5	49.9	66.9	55.8	45.8
2:27:00	2:27:00	49.4	65.4	51	48	50.6	50.3	49.4	65.3	54.5	47.4
2:28:00	2:28:00	49.2	64.8	52.2	46.9	51.8	51.3	49.2	64.7	53.6	46.2
2:29:00	2:29:00	49.9	66	52.9	47.6	52.7	51.5	49.8	66	53.8	46.8
2:30:00	2:30:00	48.5	66.3	52	46.4	51.3	49.9	48.5	66.2	53.7	45.3
2:31:00	2:31:00	48.9	64.9	50.6	46.3	50.5	50.2	48.9	64.8	51.9	45.7
2:32:00	2:32:00	52	72.2	58.2	48.2	58	57	52	72.1	59.9	47.5
2:33:00	2:33:00	49.7	66.8	54.4	47.6	53.5	52.2	49.6	66.8	55.3	46.7
2:34:00	2:34:00	48.2	65.8	50.1	46.5	49.7	49.3	48.2	65.8	51.4	45.6
2:35:00	2:35:00	49.9	68.3	54.7	46.5	54.3	51.4	49.9	68.1	56.7	46.1
2:36:00	2:36:00	48.3	65.9	50.6	46.4	50.6	49.9	48.3	65.9	53.1	45.6
2:37:00	2:37:00	50.6	67.5	53.9	48.9	52.6	51.5	50.6	67.4	56.1	47.1
2:38:00	2:38:00	50.9	70.5	56.9	46.5	56.6	55.9	50.8	70.5	59.7	45.6
2:39:00	2:39:00	49.8	67	52.2	47.1	51.7	51	49.8	67	54.2	46.1
2:40:00	2:40:00	50	68.4	53.6	47.8	53.1	52.2	50	68.4	55.9	47
2:41:00	2:41:00	51.1	69.5	54.2	49.3	53.2	52.5	51.1	69.5	57.1	48.5
2:42:00	2:42:00	49.3	68	52.4	46.6	52	50.9	49.2	67.9	54.2	46.1
2:43:00	2:43:00	48.1	66.2	51.1	45.6	50.7	49.4	48.1	66	53.5	44.5
2:44:00	2:44:00	48.1	66.4	52.9	45.3	52.4	51.6	48.1	66.4	54.7	44.5
2:45:00	2:45:00	49.2	66.2	52.3	46.4	52	51.3	49.2	66.2	54.7	45.7
2:46:00	2:46:00	48.1	64.9	51	44.6	50.4	49.8	48.1	64.9	53.5	43.9
2:47:00	2:47:00	50.2	66.5	52.7	47.6	52.5	51.9	50.2	66.4	54.5	46.7
2:48:00	2:48:00	47.2	62.7	49.6	45.5	48.8	48.2	47.3	62.5	50.9	44.8
2:49:00	2:49:00	51	73.2	56.1	47.3	55.4	53.7	51	73.2	58	46.9
2:50:00	2:50:00	52.9	69	58.3	49.9	57.1	55	52.7	68.9	60.3	48.4
2:51:00	2:51:00	48.7	64	52.3	46.6	51.9	50.9	48.7	64.1	52.8	45.7
2:52:00	2:52:00	50.3	76.2	59.5	46.7	57	52.5	50.2	76.2	64.7	46.3
2:53:00	2:53:00	49.4	66.1	52.8	47.4	52.7	51	49.4	66.1	54.9	46.2
2:54:00	2:54:00	49.3	67.1	54.2	44.9	52.6	52	49.2	66.9	57.6	44.3
2:55:00	2:55:00	48.6	64.8	50.4	45.3	50.4	49.9	48.6	64.7	52.5	44.8
2:56:00	2:56:00	48.8	63.6	50.5	47.4	50.1	49.5	48.8	63.5	52	45.9
2:57:00	2:57:00	48.9	70.5	55	45.7	54.2	51	48.9	70.5	56.5	45.3
2:58:00	2:58:00	49.4	69	54.9	45.7	54.8	51.1	49.3	69	56.8	45.3
2:59:00	2:59:00	48	63.2	49.8	46.1	49.7	49.3	48	63.2	51.2	45.6
3:00:00	3:00:00	48.8	66.7	52.2	46	51.8	51	48.8	66.6	54.5	45.1
3:01:00	3:01:00	48.6	66.6	51.7	45.8	51.4	50.4	48.6	66.6	53.6	45.1
3:02:00	3:02:00	49.2	67.3	54.6	44.2	53.8	51.3	49.2	67.2	56.8	43.6
3:03:00	3:03:00	49.4	70.7	55.8	45.1	54.7	52.9	49.3	70.6	58.9	44.9
3:04:00	3:04:00	48.1	69.1	53.4	43.8	53.1	52	48.2	69.1	56.1	43.2
3:05:00	3:05:00	49	68.4	54.2	45.6	53.9	53.1	48.9	68.3	55.8	44.9

3:06:00	3:06:00	49.1	66.8	52.5	46.4	52.2	51.3	49.1	66.8	53.7	45.5
3:07:00	3:07:00	50.9	70.1	54.1	47.4	53.9	53.5	50.8	70.1	56.7	46.9
3:08:00	3:08:00	50.1	66.4	53.2	48.2	53	51.8	50.1	66.4	54.3	47.3
3:09:00	3:09:00	49.2	65.7	52.5	47.3	51.9	50.8	49.1	65.6	54.1	46.4
3:10:00	3:10:00	50.8	74.9	55.8	47.3	54.8	53.4	50.8	74.9	61.5	46.3
3:11:00	3:11:00	50.2	67	53.9	46.3	53.8	52.8	50.2	66.9	55.6	45.5
3:12:00	3:12:00	48.5	65.5	51.8	46.4	51.3	50.2	48.5	65.4	53.7	45.9
3:13:00	3:13:00	51.9	68.6	55.6	48.2	55.1	53.6	51.8	68.5	56.7	47.4
3:14:00	3:14:00	51.4	71.8	55.5	46.6	54.7	53.6	51.3	71.8	58.4	44.8
3:15:00	3:15:00	48.1	63.2	50.2	45.8	49.9	49.5	48.1	63.2	52.2	44.5
3:16:00	3:16:00	47.6	64.2	50.2	43.8	50	49.6	47.6	64.2	51.8	43.4
3:17:00	3:17:00	52.8	80.9	64.3	44.9	63.5	57.5	53	80.9	68.5	44.5
3:18:00	3:18:00	59.3	82.8	67.1	49.2	66.6	65.7	59	82.7	68.5	48.3
3:19:00	3:19:00	49	65.3	51.9	46.8	51.5	50.7	48.9	65.3	53.7	45.7
3:20:00	3:20:00	48	65.6	50.5	45.2	50.2	49.8	48	65.5	53.1	44.2
3:21:00	3:21:00	50.4	75	55.1	46.5	53.9	52.5	50.3	75	60.2	46
3:22:00	3:22:00	48.8	68.4	54.5	44.4	53.5	51.3	48.8	68.4	57.4	44
3:23:00	3:23:00	50	67.8	54.1	46.8	53.6	52.1	50	67.7	56.7	45.8
3:24:00	3:24:00	48.9	66	51.9	45.7	51.6	50.6	48.8	66	55.2	44.9
3:25:00	3:25:00	47.4	64.7	50.5	45	50.3	49.4	47.5	64.6	52	44.1
3:26:00	3:26:00	49.7	67.4	52.9	46.5	52.6	51.3	49.6	67.3	55.5	45.7
3:27:00	3:27:00	48.3	67.1	51.8	45.2	50.8	50.1	48.3	67.1	53.7	44.7
3:28:00	3:28:00	49.3	66.2	53.1	45.2	52.5	51.6	49.3	66.2	55.6	44.5
3:29:00	3:29:00	47.7	64.6	51.1	44.6	50.7	49.6	47.7	64.5	54.1	43.8
3:30:00	3:30:00	47.5	63.5	50.6	44.1	50.4	49.1	47.5	63.4	52.7	43.5
3:31:00	3:31:00	48.5	64.9	50.7	46.1	50.3	50	48.5	64.9	52.1	45.2
3:32:00	3:32:00	49.4	66.9	53.5	46	53.1	51.6	49.4	66.9	54.5	44.7
3:33:00	3:33:00	48.9	67.6	54.7	44.8	54.4	52.3	48.9	67.6	56.5	43.8
3:34:00	3:34:00	48.3	70.1	53.4	44.8	52.6	50.1	48.2	70.1	56.7	44
3:35:00	3:35:00	48.1	67.6	52.7	44.5	52.4	50.8	48.1	67.4	54.5	43.6
3:36:00	3:36:00	48.7	65.9	51.6	45.1	51	50.6	48.7	66	54.1	44.3
3:37:00	3:37:00	48.8	77.5	58.1	45.7	52.1	50.6	49	77.5	61.8	44.4
3:38:00	3:38:00	59.7	82.1	67.4	50.6	67.1	65.6	59.5	82	69.2	48
3:39:00	3:39:00	50.8	71.1	53.6	48.1	53.3	52.4	50.6	71.1	56.4	47.3
3:40:00	3:40:00	49	66.5	52.7	45.6	52.6	51	48.9	66.4	53.6	44.8
3:41:00	3:41:00	48.1	66.4	52	45.7	51.1	50.4	48.1	66.4	54.5	44.5
3:42:00	3:42:00	58.1	82.4	66	46.7	65.7	64.1	57.9	82.4	69.7	45.6
3:43:00	3:43:00	50	73.3	53.4	46.7	52.9	51.8	49.7	73.3	56.8	45.2
3:44:00	3:44:00	48.4	64.8	51	46.4	50.8	50.3	48.4	64.7	53.1	45.2
3:45:00	3:45:00	47.4	64.4	50.4	45.1	50.1	49	47.4	64.3	51.5	44.2
3:46:00	3:46:00	59.3	91.9	68.6	46.1	67.2	65.5	59.1	91.8	72.9	45
3:47:00	3:47:00	51.2	77.1	54.1	48.6	53.9	53.1	51.2	77.1	57	47.8
3:48:00	3:48:00	48.7	65.5	52.5	46.1	52.4	50.5	48.7	65.6	53.6	44.6
3:49:00	3:49:00	48.1	66.8	52.7	45	52.3	51.2	48	66.7	54.2	44.2
3:50:00	3:50:00	46.7	65	50.8	44.1	50.5	48.9	46.7	64.9	52.4	42.9
3:51:00	3:51:00	46.4	66.2	49.6	43.6	49	48	46.5	66.2	53.8	42
3:52:00	3:52:00	47.8	62.9	49.1	45.4	49	48.8	47.8	63	50.1	44.7
3:53:00	3:53:00	47.1	64.3	50.8	43.8	50.3	49.1	47.1	64.3	53.7	43.5
3:54:00	3:54:00	46	61.9	49.2	43.5	49.1	47.9	46	61.9	50.5	42.9
3:55:00	3:55:00	44.9	61.7	46.8	42.2	46.7	46.2	45	61.8	48.4	41.5
3:56:00	3:56:00	46.9	62.5	48.8	44.3	48.7	48.4	47	62.4	50.5	43.4
3:57:00	3:57:00	46.3	64.8	48.9	42.9	48.7	48.4	46.3	64.8	50.6	42
3:58:00	3:58:00	46.8	63	49.8	43.5	49.6	48.9	46.8	63	51.9	42.9
3:59:00	3:59:00	48	65	52.2	45.8	51.8	49.8	48	64.9	53.3	43.8
4:00:00	4:00:00	46.5	64.9	49.4	43.9	49.2	48.6	46.5	64.9	50.6	43
4:01:00	4:01:00	46.3	64.4	49.5	41.7	49.3	48.5	46.4	64.4	52.7	41.1
4:02:00	4:02:00	49.8	65.8	52.6	47.1	51.9	51.3	49.7	65.9	54.6	46.1
4:03:00	4:03:00	48.1	70.3	53.2	46	52.1	49.3	48.1	70.3	57.4	45.4
4:04:00	4:04:00	49.4	66.9	53	45.2	52.6	51.6	49.3	66.9	54.4	44.4
4:05:00	4:05:00	47.4	72.2	55	44.5	54	49.4	47.3	72.2	61.2	43.7
4:06:00	4:06:00	44.8	61.3	48.7	42.8	47.9	47.2	44.9	61.2	50.3	42
4:07:00	4:07:00	45.2	62.7	48.9	42.6	48.4	46.5	45.2	62.7	51.1	41.9
4:08:00	4:08:00	46.7	66.4	51.1	43	50.8	49.4	46.7	66.4	54.4	42.3
4:09:00	4:09:00	46.9	62.8	50.1	44.6	49.5	48.5	46.9	62.8	51.2	44
4:10:00	4:10:00	45.9	62.6	49	43	48.8	48.3	46	62.5	50.5	42.5
4:11:00	4:11:00	47.2	66.1	51.5	43	51.1	50.1	47.1	66.1	53.7	41.8
4:12:00	4:12:00	45.7	62.8	48.9	42.6	48.8	47.9	45.8	62.9	50.5	42.1
4:13:00	4:13:00	46.5	67	51.2	44.3	50	48.2	46.5	66.9	55.4	43.1
4:14:00	4:14:00	46.7	61.6	48.5	43.7	48.3	48.1	46.7	61.6	50.1	43.1
4:15:00	4:15:00	47.2	63.4	49.4	45.3	49.4	48.4	47.2	63.2	50.6	44
4:16:00	4:16:00	47.3	63.2	49.8	44.6	49.3	48.6	47.3	63.2	51.4	43.9
4:17:00	4:17:00	46.2	63.1	48.6	44.1	48.2	47.4	46.2	63.1	50.2	42.9
4:18:00	4:18:00	44.2	60	46.3	42.6	46	45.2	44.3	60	48.6	41.8
4:19:00	4:19:00	44.4	62.1	47.3	42.5	47.1	46.1	44.5	62.1	49.8	41.9
4:20:00	4:20:00	45.7	62.6	48.4	42.3	48	47	45.7	62.7	50.8	41.2
4:21:00	4:21:00	45.2	64.2	48.6	42.2	47.7	46.8	45.3	64.2	50.6	41.5
4:22:00	4:22:00	45.7	62.6	47.8	42.9	47.7	47.2	45.7	62.7	49.2	41.9
4:23:00	4:23:00	44.2	61.5	48.4	42.4	47.8	45.7	44.3	61.6	51	41.6
4:24:00	4:24:00	44.1	66.5	52.3	40.9	51.6	47	44.2	66.5	54.8	40.3
4:25:00	4:25:00	44.7	60.6	47.3	42.1	46.9	46.4	44.7	60.8	48.8	41.4
4:26:00	4:26:00	44.7	62.1	47.7	41.5	47.5	46.7	44.7	62	49.6	40.8
4:27:00	4:27:00	44	64.7	46.4	42.6	45.5	45	44.1	64.8	50.7	41.6
4:28:00	4:28:00	43.4	60.2	46.7	41.1	46.5	45.1	43.5	60.2	47.9	40.2
4:29:00	4:29:00	44.5	61.7	47.1	41.3	46.7	46	44.6	61.8	49.6	40.7
4:30:00	4:30:00	44.7	59.9	46.3	42.2	46.2	45.8	44.7	60	47.8	41.5
4:31:00	4:31:00	43.6	60.2	46.7	40.6	46.2	45.2	43.7	60.2	48.6	40
4:32:00	4:32:00	45.5	65.7	49.7	42	49.2	47.7	45.4	65.6	53	40.8
4:33:00	4:33:00	44.9	62.4	48.8	42.3	47.9	46.6	44.9	62.6	51.5	41.5
4:34:00	4:34:00	45.4	64	48.4	42.7	48	47.1	45.3	64	50.7	41.9
4:35:00	4:35:00	43.8	63.1	47.7	40.4	47.5	46.1	43.8	63.1	48.9	39.5
4:36:00	4:36:00	44.8	61.3	48.1	40.5	47.9	47.1	44.9	61.2	50.1	40
4:37:00	4:37:00	43.8	60.4	46.6	42.1	46.3	45.3	43.8	60.6	47.7	41.4
4:38:00	4:38:00	46.4	62.3	48.5	44	48.3	47.6	46.5	62.2	49.6	44
4:39:00	4:39:00	45.6	62.2	48.5	43.6	48.3	47.8	45.6	62.1	50.3	42.5

4:40:00	4:40:00	42.9	58	44.6	41.3	44.5	44.1	43	58	45.8	40.9
4:41:00	4:41:00	46	64.5	51.2	42.3	49.6	47.7	46	64.5	53.8	42.5
4:42:00	4:42:00	45.4	64.6	50.9	41.5	50.5	47.4	45.5	64.6	52.2	40.9
4:43:00	4:43:00	52.4	75.1	58.8	47.8	58.3	56.7	52.3	75	61.8	46.6
4:44:00	4:44:00	47.8	69.2	50.4	45.3	50.1	49.4	47.7	69.3	54.6	44.4
4:45:00	4:45:00	44.7	61.8	48.3	42.4	47.7	47	44.7	61.8	50	41.7
4:46:00	4:46:00	45.6	71.4	52	42.6	50.3	48.3	45.6	71.3	57.4	41.7
4:47:00	4:47:00	45.4	68.9	50.3	42.9	49.4	47.9	45.4	68.9	55.5	42.1
4:48:00	4:48:00	45.7	63.9	49.7	43.7	49	47.7	45.7	64	51.4	43.1
4:49:00	4:49:00	45	71.3	51.9	42.1	49.9	46.3	45	71.3	57.5	41.6
4:50:00	4:50:00	44.5	62.5	48.5	42.7	46.5	45.8	44.6	62.6	52	41.8
4:51:00	4:51:00	46	60.8	48	44.2	48	47.2	46	60.7	49.4	43.1
4:52:00	4:52:00	46.2	62.3	47.9	44.4	47.7	47.1	46.2	62.2	49.1	43.8
4:53:00	4:53:00	46.1	68.9	48.8	44	48.1	47.5	46.1	69	51.4	43
4:54:00	4:54:00	46.6	64.3	48.7	45.1	48.4	47.8	46.7	64.1	50.4	44.2
4:55:00	4:55:00	45.3	63.4	49.6	42.1	48.9	47.5	45.3	63.2	51.1	41.4
4:56:00	4:56:00	45.4	62.7	48	42.6	47.7	46.6	45.4	62.8	50.4	41.9
4:57:00	4:57:00	45.6	62.8	48	44.2	47.5	46.8	45.7	62.8	49.4	43.3
4:58:00	4:58:00	45.1	62	47	43	46.9	46.1	45.1	62.2	48.6	41.7
4:59:00	4:59:00	44.6	62.8	47	42.9	46.4	45.6	44.7	62.7	49.2	42.5
5:00:00	5:00:00	44.9	59.9	47.5	42.3	47.3	46.5	45	59.9	48.8	41.9
5:01:00	5:01:00	46.9	63.8	49.4	44.9	49.4	48.4	47	63.8	51.4	43.8
5:02:00	5:02:00	46.4	64.2	49.4	44.3	49.2	47.7	46.4	64.2	50.9	43.4
5:03:00	5:03:00	43.1	61.9	45.4	41.3	45.2	44.7	43.1	62.1	47.4	40.4
5:04:00	5:04:00	43	58.6	44.3	41.3	44.3	43.9	43.1	58.7	45.8	40.8
5:05:00	5:05:00	43.9	59.5	47.3	41.8	45.8	45.3	44.1	59.3	49.5	41.2
5:06:00	5:06:00	45.4	61.6	48.2	41.8	48	47.3	45.4	61.5	49.7	41.1
5:07:00	5:07:00	45.2	65.3	48.4	42.5	47.6	47.1	45.3	65.2	50.6	41.8
5:08:00	5:08:00	45.4	60.2	47.8	42.5	47.4	46.8	45.5	60.2	48.8	41.7
5:09:00	5:09:00	44.5	60.6	47.1	42.5	46.6	45.8	44.6	60.7	49.1	41.8
5:10:00	5:10:00	43.9	62.2	49.3	41.3	47.9	45.7	43.9	62.2	51.8	40.5
5:11:00	5:11:00	41.8	57.1	43.9	40.1	43.2	42.6	41.9	56.9	45	39.8
5:12:00	5:12:00	41.5	61.2	45.8	38.3	45.4	44.3	41.8	61.1	47.8	38.5
5:13:00	5:13:00	42.4	64	45.4	40.3	45.2	44.3	42.4	64	49.3	40
5:14:00	5:14:00	45.6	64.9	48.1	41.4	47.9	47.3	45.7	64.6	50.4	41.1
5:15:00	5:15:00	42.2	59.7	45.8	40	45.5	44.7	42.3	59.9	46.6	39.3
5:16:00	5:16:00	44	59.2	46.3	42.4	45.8	45.1	44.1	59.5	48.5	41.8
5:17:00	5:17:00	42.1	58.6	44.9	40	44.8	43.2	42.3	58.4	46.3	39.6
5:18:00	5:18:00	41.3	56.8	42.6	40	42.5	42.4	41.5	56.9	44	39.3
5:19:00	5:19:00	42.2	59.3	45.9	39.9	45.3	43.8	42.3	59.3	48.7	39
5:20:00	5:20:00	40.1	57.2	42.1	38.3	41.7	41.3	40.3	57.2	44.5	37.9
5:21:00	5:21:00	41.4	59	44.7	38.3	44.2	42.9	41.6	58.8	45.9	38.4
5:22:00	5:22:00	43.5	60.2	45.7	40.6	45.5	44.9	43.6	60.2	47.5	39.7
5:23:00	5:23:00	42	57.5	43.6	40	43.5	43.1	42.1	57.6	44.9	39.1
5:24:00	5:24:00	40.8	59.1	42.6	38.3	42.4	41.9	40.9	59.4	44.6	37.9
5:25:00	5:25:00	40.9	58.2	43.3	39.8	43.1	42.1	41.1	58.1	45.5	38.7
5:26:00	5:26:00	42	62.8	46.7	38.3	46.4	44.5	42.1	62.9	48.8	38.3
5:27:00	5:27:00	39.9	63	45.2	38.3	44.5	41.2	40.1	63	49.4	37.6
5:28:00	5:28:00	42.8	67.9	50.1	38.3	48.5	46	42.8	67.9	53.8	37.9
5:29:00	5:29:00	41	58	45	38.3	44.4	42.9	41	57.8	46.6	38.2
5:30:00	5:30:00	42.8	60.8	46.9	40	46.6	44.8	42.9	60.7	48.9	39.3
5:31:00	5:31:00	42.9	58.6	45.1	40	45	44.4	42.9	58.5	46.8	39.3
5:32:00	5:32:00	40.6	59.9	43.4	39.6	42.8	41.6	40.6	60.1	46.5	38.5
5:33:00	5:33:00	39.9	57.7	43.7	38.3	43.2	41.3	40.2	57.6	46.1	38
5:34:00	5:34:00	41.9	58.7	43.9	39.7	43.4	43	42	58.7	46.1	38.4
5:35:00	5:35:00	41.8	60.9	45.3	40	45	43.2	42	60.9	48.2	39.4
5:36:00	5:36:00	43.2	63.8	46.4	40	45.8	45.1	43.2	63.6	48.6	39.3
5:37:00	5:37:00	43.6	61.6	47.1	41	46.7	46.1	43.6	61.6	49.2	39.5
5:38:00	5:38:00	41.8	59.5	44.1	39.8	43.7	43.1	41.8	59.6	47.5	38.8
5:39:00	5:39:00	43.5	61.1	46.4	41.1	46	45.4	43.5	61.2	49	39.9
5:40:00	5:40:00	42.3	60.5	46.5	40.2	46.1	44.2	42.4	60.7	48.6	39
5:41:00	5:41:00	42.3	59.1	46.3	39.8	45.9	44.9	42.3	59.1	49	38.8
5:42:00	5:42:00	38.3	54	40.4	35.3	40.2	39.6	38.4	54.1	42.6	36
5:43:00	5:43:00	39.2	65.8	47.2	35.3	46.3	41.6	39.6	65.9	52.6	36
5:44:00	5:44:00	41.9	60	46.8	39	45.8	44	41.9	60	48.8	38
5:45:00	5:45:00	39.7	61	45	38.3	44.5	41.4	39.9	60.8	47.5	37.1
5:46:00	5:46:00	38.8	56	41.5	37.9	40.8	40.2	38.8	56.2	44.8	36.6
5:47:00	5:47:00	37.9	53.7	39	35.3	38.8	38.5	38	54.4	41.8	35.4
5:48:00	5:48:00	38.8	57.8	42.7	36.1	42.1	41	38.8	57.7	45.2	35.9
5:49:00	5:49:00	39.7	56.2	41.4	38.3	41	40.5	39.9	56.2	43.9	37
5:50:00	5:50:00	39.8	54.8	41	38.3	40.8	40.3	39.8	54.8	43	37.3
5:51:00	5:51:00	38.3	53.8	39.7	37.1	39.5	38.7	38.2	53.5	42.1	36.3
5:52:00	5:52:00	37.8	66.2	46	35.3	44.6	38.9	38.1	66.1	51.1	35.7
5:53:00	5:53:00	38.8	56	40.9	38.2	40.3	40	39	55.8	42.7	37
5:54:00	5:54:00	38	54.5	40.5	35.3	40.2	39.7	38.3	54.4	41.8	35.4
5:55:00	5:55:00	51.9	75.5	63.9	38.5	63.6	58.2	52.3	75.4	65.1	38
5:56:00	5:56:00	48.9	74.3	63.2	38.3	61.3	56.9	48	74.3	62	37
5:57:00	5:57:00	39.4	55.8	42.5	38.1	41.7	41.2	39.5	55.7	45.1	36.4
5:58:00	5:58:00	41.4	62.1	44.4	38.2	43.8	43.3	41.4	62.2	48.5	36.1
5:59:00	5:59:00	39.1	58.9	42.6	35.8	42	41.4	39.3	58.7	45.9	35.4
6:00:00	6:00:00	40.8	59.8	43.9	38.3	43.2	42.3	40.9	59.8	46.7	37.4
6:01:00	6:01:00	40.8	62	45.3	37	44.6	43.2	40.7	61.9	50.5	35.8
6:02:00	6:02:00	39.2	64.7	45	36.6	44	41.6	39.2	64.7	50.4	35.1
6:03:00	6:03:00	40.3	58.5	43.5	38.2	42.9	42	40.3	58.6	47.8	36.7
6:04:00	6:04:00	39.3	66	49.8	35.3	47.6	41.9	39.2	66	56.2	35.2
6:05:00	6:05:00	39.1	65.8	45.7	36.3	45	40.8	38.9	65.8	50.7	35.7
6:06:00	6:06:00	39.7	61.7	46.4	36.5	44.7	42.7	39.5	61.8	52.5	35.6
6:07:00	6:07:00	41.2	68.3	49.1	38.2	47.6	44.5	41	68.3	55.8	36.5
6:08:00	6:08:00	39.2	57.8	41.8	38	41.3	40.4	39.2	57.8	45.6	36.3
6:09:00	6:09:00	39.3	61.4	44.8	37.8	41.7	40.5	39.3	61.3	51	35.9
6:10:00	6:10:00	47	66.4	53.8	38.2	53.2	51.3	46.9	66.4	56.3	36.7
6:11:00	6:11:00	39.4	65.7	46.4	35.4	44.7	42.8	39.2	65.5	53	35.3
6:12:00	6:12:00	37.5	54.6	39.7	35.3	39.2	38.7	37.6	54.6	42.6	35
6:13:00	6:13:00	39.2	62.1	46.6	35.3	45.3	42.3	39.1	62.3	50.2	35

6:14:00	6:14:00	37.5	58.7	39.3	35.3	38.9	38.5	37.6	58.6	42.7	35.2
6:15:00	6:15:00	37.5	54	39.7	35.3	39	38.5	37.5	53.9	41.7	34.8
6:16:00	6:16:00	35.6	53.6	37.9	35.3	37.8	36.7	36.3	53.4	41.8	34.1
6:17:00	6:17:00	35.4	54.2	36.4	35.3	35.9	35.6	36.1	53.8	39	34.2
6:18:00	6:18:00	35.6	51.4	37.8	35.3	37.7	36.5	36.3	51.9	39.5	34.2
6:19:00	6:19:00	37.4	59.5	42.9	35.3	40.7	39.1	37.5	59.5	48.8	34.9
6:20:00	6:20:00	37.5	63.5	44.7	35.3	43.4	40.3	37.8	63.4	48.5	34.5
6:21:00	6:21:00	36.9	56.4	42.9	35.3	41.7	39.8	37.2	56.2	46	34.7
6:22:00	6:22:00	36.1	55.1	40	35.3	39.8	38.3	36.6	54.6	42.6	34.6
6:23:00	6:23:00	35.5	51.1	37.2	35.3	37	35.8	36.5	51.4	39.7	34.7
6:24:00	6:24:00	35.9	56.7	40.8	35.3	39.6	37.5	35.9	56.5	46.1	34
6:25:00	6:25:00	35.3	51.3	35.6	35.3	35.5	35.5	35.9	51.4	37.7	34.5
6:26:00	6:26:00	35.5	53.4	36.8	35.3	36.8	36.2	36.4	53.1	41	34
6:27:00	6:27:00	36	54.5	38.8	35.3	38.5	38.2	36.6	54.5	42	34.2
6:28:00	6:28:00	35.4	51.6	36.3	35.3	35.9	35.6	36.5	51.5	39.5	34.8
6:29:00	6:29:00	37.6	53.1	39.6	35.3	39.5	38.7	37.8	52.8	41.7	35.6
6:30:00	6:30:00	36.3	51.9	38.4	35.3	38.4	38.4	36.6	51.6	38.7	34.5
6:31:00	6:31:00	35.5	50.7	37.7	35.3	37.6	35.7	36.1	50	38.7	34.4
6:32:00	6:32:00	36	50.8	38.4	35.3	38.5	38.4	36.8	50.8	39.4	35.1
6:33:00	6:33:00	36.6	63	44.9	35.3	43.9	38.4	36.9	62.7	49.5	34.6
6:34:00	6:34:00	36.5	59.8	43.6	35.3	42.5	38.4	37.2	59.7	46.9	34.7
6:35:00	6:35:00	35.4	50.5	38	35.3	37.9	35.5	36.2	50.4	37.9	34.8
6:36:00	6:36:00	37.4	53.8	40.1	35.3	39.1	38.5	38	53.5	41.1	35.3
6:37:00	6:37:00	39.1	53.2	40.4	37.1	40.3	40.2	38.8	53.3	42.3	35.7
6:38:00	6:38:00	39.5	54.7	44.6	38.2	44.4	42.7	39.6	55	46.4	37.1
6:39:00	6:39:00	38.4	52.8	39.3	37.9	39.2	38.8	38	52.6	41.2	36.1
6:40:00	6:40:00	38.2	52.8	39.6	37.2	39.5	38.5	38	52.4	40.9	35.9
6:41:00	6:41:00	37.1	52.3	38.4	35.3	38.5	38.4	37.5	52.2	39.8	36
6:42:00	6:42:00	37.9	53.7	39.5	35.3	39	38.5	38.1	53.9	40.7	35.4
6:43:00	6:43:00	38.3	54.2	40.6	35.3	40.2	39.7	38.5	54.1	42.9	36.1
6:44:00	6:44:00	38.5	63.4	45.3	35.3	44.8	38.7	38.5	63.4	50.1	36.1
6:45:00	6:45:00	35.9	51.1	38.4	35.3	38.4	37.1	36.7	51.7	39	34.9
6:46:00	6:46:00	37.5	66.1	44.4	35.3	43.3	38.5	37.8	65.9	49.1	35.7
6:47:00	6:47:00	36.3	51.9	38.6	35.3	38.5	38.4	36.9	51.9	40.3	34.8
6:48:00	6:48:00	35.4	51.5	36.8	35.3	36.2	35.6	36.4	51.2	38.9	34.6
6:49:00	6:49:00	36.4	51.1	38.5	35.3	38.5	38.4	36.7	50.9	39.2	35.1
6:50:00	6:50:00	36.4	51.8	39	35.3	38.6	38.4	37	51.4	40.7	34.7
6:51:00	6:51:00	39	52.5	41.3	37.2	40.7	40.2	39	52.7	43.3	35.9
6:52:00	6:52:00	36.9	52.1	40.5	35.3	40.2	38.6	37.3	52.2	41.7	34.7
6:53:00	6:53:00	38.1	63.4	44	35.3	43.1	38.5	38	63.2	48.6	35.5
6:54:00	6:54:00	36.8	53.4	38.4	35.3	38.5	38.4	37.3	53.6	39.4	35.2
6:55:00	6:55:00	38.7	57.9	41.9	38.3	41.4	39.9	39.1	57.7	43.7	37.3
6:56:00	6:56:00	37.1	51.8	38.5	35.3	38.5	38.4	37.3	51.8	39.6	35.5
6:57:00	6:57:00	36.5	52	38.4	35.3	38.4	38.4	37.1	52	39.3	35.3
6:58:00	6:58:00	35.7	51.2	37.9	35.3	37.7	36.8	36.9	51.5	38.4	35.4
6:59:00	6:59:00	37.4	52.3	38.6	35.3	38.5	38.4	37.6	51.9	40.3	35.9
7:00:00	7:00:00	36	50.8	38.2	35.3	38.1	37	37	50.9	39.1	35.5
7:01:00	7:01:00	35.7	51.3	37.6	35.3	37.6	37.2	36.7	51	39.4	35.2
7:02:00	7:02:00	35.6	51.4	38.5	35.3	38.4	36.2	36.4	51.5	39.6	34.6
7:03:00	7:03:00	36.3	63.4	44.1	35.3	43.8	38.1	36.7	63	49.1	34.7
7:04:00	7:04:00	36.5	65	44.5	35.3	44	38.3	36.8	65.2	49.8	34.6
7:05:00	7:05:00	37	51.3	38.5	35.3	38.5	38.4	37.3	51.5	39.8	35.4
7:06:00	7:06:00	37.2	53.7	40.1	35.3	40	38.8	37.7	53.9	41.2	35.6
7:07:00	7:07:00	38.2	53.3	40	36.4	39.6	38.7	38.1	53.4	41.5	36.5
7:08:00	7:08:00	37.4	52.3	38.4	35.3	38.5	38.4	37.4	52.1	39.3	36
7:09:00	7:09:00	45.7	63.8	51	36	50.9	50.1	45.8	63.8	52	36.5
7:10:00	7:10:00	42.1	60.4	48.2	38.1	48.2	46.8	41.9	60.4	49.5	36.3
7:11:00	7:11:00	38.1	52.4	39.2	35.3	38.8	38.5	37.9	52.3	41.1	35.8
7:12:00	7:12:00	37.1	52.3	38.8	35.3	38.6	38.4	37.3	52.2	40.4	35
7:13:00	7:13:00	35.5	51.5	37.2	35.3	36.9	35.9	36.4	50.8	39.1	34.7
7:14:00	7:14:00	35.9	51.5	38.3	35.3	38.3	37.8	36.6	51.5	39.5	34.7
7:15:00	7:15:00	35.4	51.1	36	35.3	35.7	35.5	35.8	51.1	38.1	34.3
7:16:00	7:16:00	35.3	50.5	35.7	35.3	35.5	35.4	35.1	50.5	38.3	33.8
7:17:00	7:17:00	36.6	64.4	44.2	35.3	43.8	38.3	36.4	64.5	49.1	33.6
7:18:00	7:18:00	35.3	50.6	35.5	35.3	35.5	35.5	35.7	50.2	37.8	34
7:19:00	7:19:00	36.1	63.8	43.9	35.3	43.4	36.2	36.7	63.9	49.4	34.7
7:20:00	7:20:00	35.3	50.4	35.7	35.3	35.6	35.5	36.2	50.8	38	34.7
7:21:00	7:21:00	35.3	50.3	35.5	35.3	35.5	35.5	36.1	50.1	37.7	34.6
7:22:00	7:22:00	35.3	50.9	35.4	35.3	35.5	35.5	36	50.6	37.4	34.3
7:23:00	7:23:00	35.3	49.7	35.4	35.3	35.5	35.4	35.5	49.6	36.9	34.3
7:24:00	7:24:00	35.3	50	35.5	35.3	35.5	35.5	35.7	49.7	37.4	34.4
7:25:00	7:25:00	35.3	50.2	35.5	35.3	35.5	35.4	35.7	50.4	37.2	34.2
7:26:00	7:26:00	35.3	49.9	35.4	35.3	35.5	35.4	35.6	49.9	37.6	33.5
7:27:00	7:27:00	35.5	50.8	36.7	35.3	36.5	36	36.2	51.1	39.3	34.2
7:28:00	7:28:00	36.1	52	38.4	35.3	38.4	38.3	36.5	51.8	39.1	33.9
7:29:00	7:29:00	37.5	51.8	38.7	35.3	38.5	38.4	37.4	51.7	40.8	35.6
7:30:00	7:30:00	36.4	55.4	43.3	35.3	42.7	38.4	37.2	54.9	44.4	35.1
7:31:00	7:31:00	37.6	63.2	46	35.3	45.1	41.6	37.9	63.2	50.2	34.8
7:32:00	7:32:00	35.7	51.3	38.5	35.3	38.4	36.6	36.3	51.2	40.4	34.8
7:33:00	7:33:00	35.3	50	35.6	35.3	35.5	35.5	36	50	37.9	34.5
7:34:00	7:34:00	35.3	51.4	35.5	35.3	35.5	35.5	35.7	51.1	37.8	34
7:35:00	7:35:00	36.4	53	40	35.3	39.4	38.4	37	53.2	41.2	34.5
7:36:00	7:36:00	36.4	53.1	38.9	35.3	38.5	38.4	37	53.1	40.7	34.6
7:37:00	7:37:00	35.4	51	37.8	35.3	37.7	35.5	36.1	50.9	39.6	34.3
7:38:00	7:38:00	35.5	50.4	38	35.3	37.7	35.6	35.7	50.2	38.3	34
7:39:00	7:39:00	36	53.1	38.5	35.3	38.5	37.8	36.4	53.2	39.8	34.1
7:40:00	7:40:00	38.1	56.3	42.6	35.3	42.4	41.4	38.5	56.3	44	35.1
7:41:00	7:41:00	35.3	50.5	35.4	35.3	35.5	35.4	35.9	50.3	37.4	34.3
7:42:00	7:42:00	35.9	52.2	38.4	35.3	38.5	38	36.6	52.3	40.8	34.5
7:43:00	7:43:00	36.3	51.9	38.5	35.3	38.5	38.4	36.8	51.6	40.1	34.5
7:44:00	7:44:00	37.2	65.7	45.3	35.3	44	38.4	37.5	65.7	50.5	34.9
7:45:00	7:45:00	36.8	63.6	44.2	35.3	43.7	38.4	37.3	63.4	49.1	34.8
7:46:00	7:46:00	35.7	52.5	38.4	35.3	38.4	38.1	35.7	52.6	38.8	33.7
7:47:00	7:47:00	35.3	50.1	35.8	35.3	35.5	35.5	36.2	50	38.4	34.7

7:48:00	7:48:00	35.3	50.3	35.6	35.3	35.5	35.4	35.8	50.6	37.9	33.9
7:49:00	7:49:00	36.4	51.4	38.4	35.3	38.4	38.4	36.8	51	38.9	34.6
7:50:00	7:50:00	35.3	51.8	35.8	35.3	35.7	35.4	35.7	51.6	37.9	34.2
7:51:00	7:51:00	35.3	50	35.5	35.3	35.5	35.4	35.6	49.7	37.6	33.9
7:52:00	7:52:00	35.3	51.2	35.6	35.3	35.5	35.5	35.7	51.7	37.6	33.5
7:53:00	7:53:00	35.4	50.8	37	35.3	36.8	35.8	36.4	50.8	38.6	34.9
7:54:00	7:54:00	36	63.5	44.4	35.3	43.6	36.2	36.6	63.4	49.5	34.5
7:55:00	7:55:00	35.6	51.7	36.9	35.3	36.7	36.2	36.9	51.8	39	35
7:56:00	7:56:00	38.1	54.6	41.4	35.3	41.1	39.4	38.6	54.7	43.1	35.3
7:57:00	7:57:00	37.7	52.3	39.3	35.3	39	38.5	37.9	52.3	41.3	35.4
7:58:00	7:58:00	35.4	51.3	36.1	35.3	35.7	35.5	36.3	52.2	37.9	34.7
7:59:00	7:59:00	36.6	53.5	39.6	35.3	39.2	38.5	37.3	53.5	40.6	34.6
8:00:00	8:00:00	37.6	54.1	40.6	35.3	40.4	39.5	37.9	54.3	41.8	35.8
8:01:00	8:01:00	36.1	51.8	38.4	35.3	38.4	38.4	36.9	51.5	38.5	35
8:02:00	8:02:00	37.9	53.5	40.5	35.3	40.2	39.2	38.2	53.5	42.1	35.4
8:03:00	8:03:00	38.7	54	41	37.7	40.8	40.1	38.8	54	42.1	36.5
8:04:00	8:04:00	38.5	53.5	40.2	35.3	40.2	39.6	38.3	53.4	41.5	35.6
8:05:00	8:05:00	37.5	63.7	44.8	35.3	44.4	38.5	37.6	63.5	49.9	34.2
8:06:00	8:06:00	37.2	53.4	39.6	35.3	39.2	38.5	37.6	53.6	41.6	35
8:07:00	8:07:00	38.9	62.8	44.4	37	43.9	39.8	38.9	62.7	49.1	36
8:08:00	8:08:00	37	53.3	38.5	35.3	38.5	38.4	37.2	53.1	39.9	35.3
8:09:00	8:09:00	37.6	52.2	38.5	35.3	38.5	38.4	37.6	52.3	39.9	36
8:10:00	8:10:00	38.6	55.6	41.8	36.9	40.9	40	38.9	55.2	44.5	36.5
8:11:00	8:11:00	38.2	55.6	39.6	36.7	38.7	38.4	37.8	55.3	42.9	36.1
8:12:00	8:12:00	37.2	55.7	38.5	35.3	38.4	38.4	37.4	55.5	40.1	35.7
8:13:00	8:13:00	36.1	52.3	38.9	35.3	38.4	38.3	36.8	52.2	41.5	34.9
8:14:00	8:14:00	38.1	53.8	39.6	35.3	39.4	38.7	38.2	53.5	42.4	36
8:15:00	8:15:00	38.4	54.1	38.7	38.2	38.8	38.5	38.4	53.7	40.5	36.7
8:16:00	8:16:00	39	53.7	40.3	36.8	40.3	40.2	39	53.8	41.7	35.7
8:17:00	8:17:00	39.3	54.7	40.2	38.3	40.2	40.2	39.6	54.6	41.2	38.1
8:18:00	8:18:00	38.5	53	40.1	38.2	40.1	39.2	38.7	53.4	40.9	36.6
8:19:00	8:19:00	38.6	53.9	40.2	38	40.2	39.9	38.6	54.2	41.3	36.6
8:20:00	8:20:00	39.3	55.9	41.6	37.8	41.5	40.6	39.3	55.9	43	36.3
8:21:00	8:21:00	39.3	56.5	42.5	36.3	42.4	41.5	39.5	56.3	43.6	36
8:22:00	8:22:00	40.6	55.1	42.6	38.9	42.5	42.3	40.7	55.4	43.8	38.4
8:23:00	8:23:00	42.2	57.2	45	39.2	44.4	43.2	42.4	57.2	46.7	39.3
8:24:00	8:24:00	41.1	55.6	43.1	39.9	42.5	41.7	41.3	55.6	43.4	39
8:25:00	8:25:00	41.4	64.5	46.9	39.6	46.3	42.9	41.6	64.5	50.7	38.6
8:26:00	8:26:00	43.2	64.1	46.6	40.7	46.1	44.5	43.4	64.2	50.1	40
8:27:00	8:27:00	42.2	62.4	44.6	38.3	44.5	44	42.3	62.4	47.3	37.8
8:28:00	8:28:00	42.5	64.9	48	38.3	46.7	44.9	42.6	64.7	50.4	38.5
8:29:00	8:29:00	43	58.8	46.1	40	45.5	44.5	43.2	58.4	48	39.1
8:30:00	8:30:00	42.7	59.4	45.2	40.6	45	44.6	42.9	59.3	46.2	40.1
8:31:00	8:31:00	43.6	59.8	45.7	41	45.6	45.2	43.7	59.9	47	40.1
8:32:00	8:32:00	43.4	60.7	46.9	40.1	46.8	45.4	43.5	60.7	48	39.5
8:33:00	8:33:00	45.1	63.3	49.1	42.1	48.5	46.9	45.2	63.1	50.6	41.6
8:34:00	8:34:00	43.6	58.4	45.5	41.3	45.5	45	43.7	58.6	47	40.3
8:35:00	8:35:00	42.7	59.9	46.1	40.2	45.4	44.2	42.8	59.8	47.6	39.5
8:36:00	8:36:00	43.4	61.2	45.9	40.5	45.8	45	43.5	61	47.1	39.5
8:37:00	8:37:00	42.5	59.6	45.4	40.1	44.6	43.9	42.5	59.7	47.9	39.4
8:38:00	8:38:00	40.6	58.3	44.9	38.2	44.1	43.3	40.8	58.2	47.3	36.9
8:39:00	8:39:00	45.9	63.2	48.5	42.3	48.5	47.9	46	63.1	50.9	41.4
8:40:00	8:40:00	46.3	64	50.2	42.9	49.8	48.1	46.3	64.1	51.9	41.9
8:41:00	8:41:00	44.8	63	48.2	41.5	48	46.9	44.7	63	49.8	39.8
8:42:00	8:42:00	43.6	59	45.8	40	45.5	45.1	43.7	59.1	47	39.4
8:43:00	8:43:00	43.6	63	47.1	40.7	46.5	44.6	43.7	63.1	50.1	38.8
8:44:00	8:44:00	43.9	64.5	47	41.6	46.8	45.5	43.9	64.5	49.7	40.3
8:45:00	8:45:00	42.3	58.4	45.5	39.6	45.5	44.4	42.4	58.5	46.8	38
8:46:00	8:46:00	43.7	62.9	46.4	40.7	46.2	45.5	43.8	62.7	49.9	39.4
8:47:00	8:47:00	39	56.9	43.7	35.3	43.6	43.3	39.2	56.7	45.1	35.1
8:48:00	8:48:00	40.3	57.1	44.2	35.3	43.7	43	40.4	57.2	45.9	36.3
8:49:00	8:49:00	43.6	65.1	48.1	40.1	48	47	43.7	65	51.5	38.9
8:50:00	8:50:00	39.2	60.1	45.5	35.3	45.2	42.4	39.4	59.7	48.1	35.3
8:51:00	8:51:00	42.9	60.9	47.8	38.3	47.5	45.8	43	60.9	48.8	37
8:52:00	8:52:00	44.7	63.2	49.3	39.7	48.9	47.8	44.7	63.1	50.5	38.8
8:53:00	8:53:00	42.6	60.9	46	39.2	45.7	44.7	42.7	61	47.9	38.2
8:54:00	8:54:00	42.1	58.9	45.5	39.9	44.6	43.9	42.3	58.7	47.6	38.9
8:55:00	8:55:00	40.7	59.7	46.1	35.3	45.3	44.2	40.7	59.5	48.3	35.1
8:56:00	8:56:00	42.1	62	47.8	37.4	47.2	45.3	42.2	62	49.5	35.7
8:57:00	8:57:00	41.6	60.8	46	39.4	45.6	44	41.6	61	48.6	38.4
8:58:00	8:58:00	40.4	58.4	44.1	38.1	44	42.6	40.5	58.6	46	36.6
8:59:00	8:59:00	44.6	68.2	50.7	39.9	50	48.7	44.6	68.1	52.6	38.7
9:00:00	9:00:00	42.6	64	48.4	38.3	47.3	45.6	42.6	64	50.1	37.3
9:01:00	9:01:00	43	59.6	47	39.6	46.7	45	43.1	59.7	48.8	38.6
9:02:00	9:02:00	41.7	58.6	44.9	39	44.7	43.9	41.7	58.7	46.1	38.3
9:03:00	9:03:00	44.6	61.8	49.8	40.1	49.1	47.7	44.6	61.9	51.1	39.8
9:04:00	9:04:00	43	60.1	46.4	41.1	45.9	44.4	43.1	59.9	47.8	40.2
9:05:00	9:05:00	44.6	62.8	48.9	41.2	47.9	46.7	44.7	62.7	50.8	40.4
9:06:00	9:06:00	44.9	63	49.7	41	48.7	47.5	45	63.1	51.4	39.8
9:07:00	9:07:00	46.3	66.7	51.1	42.1	49.8	49.2	46.3	66.7	53.5	41.1
9:08:00	9:08:00	47.1	69.6	51	41.3	50.4	49.8	47	69.6	52.9	40.8
9:09:00	9:09:00	45	65.7	52.9	40.3	52	48.9	45.1	65.6	55.1	40
9:10:00	9:10:00	46.1	67.6	53.8	40	53.6	49.6	46	67.7	55.2	38.9
9:11:00	9:11:00	44	65.8	51.1	40	49.6	47.5	44	65.8	53.2	39.2
9:12:00	9:12:00	46.9	64.3	50.1	43.3	50	49.3	46.8	64.1	52.1	42.5
9:13:00	9:13:00	44.9	66.2	52.8	40.1	52.1	49.5	45	66.2	54.9	39.6
9:14:00	9:14:00	44.4	67.7	50.5	39.8	49.6	46.9	44.4	67.7	52.4	38.8
9:15:00	9:15:00	43.6	67.4	53.8	35.3	53.2	47.9	43.6	67.4	56.1	35
9:16:00	9:16:00	45	65.9	50.2	38.3	50.1	48.8	45.1	65.7	51.8	38.3
9:17:00	9:17:00	44.3	64.5	47.4	41.9	47.3	45.6	44.3	64.6	50.5	41
9:18:00	9:18:00	44.2	61.2	47.7	40.5	47.6	46.7	44.3	61.4	49.1	39.8
9:19:00	9:19:00	39.1	60	45	35.3	44.9	41.5	39.3	59.8	46.5	35.4
9:20:00	9:20:00	42.7	64.5	48.3	38	47.5	45.2	42.8	64.5	49.6	36.6
9:21:00	9:21:00	45	65.8	50.3	38.3	50.3	49.2	45.1	65.8	52.2	37

9:22:00	9:22:00	43.2	60.9	48.5	39	48.3	45.2	43.1	60.8	49.1	38.3
9:23:00	9:23:00	39.7	60.3	43.7	35.3	43.2	42.4	39.9	60.1	47.6	35.1
9:24:00	9:24:00	41.9	58.1	45	37.7	44.8	43.8	42	57.9	46.1	36.1
9:25:00	9:25:00	38.7	64.4	45.5	36.9	44.5	39.6	38.7	64.6	50.3	35.6
9:26:00	9:26:00	36.1	54.1	39.6	35.3	38.5	38	37	54.5	40.8	35
9:27:00	9:27:00	42.7	61.1	48.6	38.3	48.4	46.8	42.9	61.1	50.6	37.2
9:28:00	9:28:00	39.3	58.2	45	35.3	44.7	43.5	39.5	58.2	46.3	34.7
9:29:00	9:29:00	42.2	59.7	47	37.2	47	46.5	42.4	59.7	47.8	37
9:30:00	9:30:00	39.9	57.8	44.7	37.8	44.4	42.7	40.1	57.7	46.1	36.5
9:31:00	9:31:00	41.6	62.9	48.1	37	47.9	45.4	41.6	62.7	49.7	36.2
9:32:00	9:32:00	44.4	67.6	54	38.3	53.5	49.8	44.4	67.6	55	37.9
9:33:00	9:33:00	41.5	61.4	48.4	38.3	47.8	45.6	41.8	61.4	49.9	37.3
9:34:00	9:34:00	43.4	65	48.2	39.9	47.8	46.1	43.4	65	51.4	38.8
9:35:00	9:35:00	45.5	63.5	50	39.6	49.8	49.3	45.5	63.2	51.1	38.7
9:36:00	9:36:00	42.7	65.3	49.1	38.3	48.6	47	42.9	65.3	50.6	38.2
9:37:00	9:37:00	42.1	64.8	46.6	38.3	45.5	44.7	42.1	64.8	48.1	37.3
9:38:00	9:38:00	41.4	67	47.4	38	46.1	44.1	41.6	67.1	50.5	36.4
9:39:00	9:39:00	43.1	62.9	47.5	38.3	47.2	46.1	43.2	63	50.1	37.8
9:40:00	9:40:00	44.9	65.9	52.1	40.6	51.1	47.8	44.9	66	53.8	40.1
9:41:00	9:41:00	47.8	69.6	53.8	43	53.4	52.1	47.8	69.6	55.9	41.5
9:42:00	9:42:00	45.7	63.7	48.7	42	48.3	47.7	45.7	63.7	50.7	41.1
9:43:00	9:43:00	47	64.4	50.9	44.2	50.5	49.3	47.1	64.5	52.8	43.6
9:44:00	9:44:00	44.6	61.3	48.2	41.3	47.8	47.3	44.7	61.2	49.9	40.3
9:45:00	9:45:00	45.6	62.4	48.8	41.4	48.4	47.8	45.7	62.4	50.6	40.8
9:46:00	9:46:00	41.4	60.1	46.2	37.6	45.5	43.9	41.4	60	48.7	35.5
9:47:00	9:47:00	43.9	63.5	50.1	39.2	49.7	47.2	43.9	63.5	51.4	37.9
9:48:00	9:48:00	44.5	63.4	47.4	41.3	47.3	46.9	44.6	63.4	49.7	40.7
9:49:00	9:49:00	47.2	64	50.7	44.2	50.3	48.2	47.3	63.9	52.2	43.7
9:50:00	9:50:00	45.4	62.6	49.7	40	49.2	48.5	45.4	62.7	51.1	38.7
9:51:00	9:51:00	41.1	66.2	48.1	38.3	47.3	43.2	41.2	66.3	50.9	37.3
9:52:00	9:52:00	46.3	64.4	50.6	42.6	50.1	49.1	46.3	64.4	52.3	41.8
9:53:00	9:53:00	46.7	69.2	52	43.6	51.1	48.9	46.7	69.2	54.4	42.4
9:54:00	9:54:00	49.5	66.1	53.1	46.4	52.9	52.1	49.5	66.2	54.4	45.1
9:55:00	9:55:00	48.7	67.5	52.9	44.6	52.7	51.9	48.7	67.4	54.5	43.3
9:56:00	9:56:00	44	61.4	48.5	40.1	48.1	46.6	44	61.2	51.1	39.6
9:57:00	9:57:00	44.1	62.2	49.5	41.2	48.9	46.8	44.1	62.2	51.6	39.1
9:58:00	9:58:00	41.9	58.9	44.5	38.3	44.4	43.5	42	59	46	37.9
9:59:00	9:59:00	41.4	56.6	43.5	38.3	43.3	42.9	41.6	56.2	45.1	38.4
10:00:00	10:00:00	41.3	56.5	42.7	38.3	42.5	42.4	41.3	56.5	43.9	37
10:01:00	10:01:00	39.5	56.1	42.9	36.5	42.9	41.4	39.6	56.4	44.1	35.9
10:02:00	10:02:00	39.2	54.9	41.8	36.3	41.6	40.2	39.3	54.9	43	35.1
10:03:00	10:03:00	38.8	55.6	41.8	35.3	41.5	40.9	39.1	55.2	43.6	34.9
10:04:00	10:04:00	39.3	57.5	44.8	38.1	41.7	40.8	39.6	57.6	46.4	36.3
10:05:00	10:05:00	40.6	59.8	46	38.3	45.5	42.2	40.7	59.8	47.4	37.6
10:06:00	10:06:00	42.7	59.8	44.5	40	44.4	44.2	42.9	59.9	46.3	39.2
10:07:00	10:07:00	42.5	59	45.4	38.3	45.3	44.4	42.6	59	46.2	37.3
10:08:00	10:08:00	41.5	63.7	47.3	35.7	46.9	43.9	41.6	63.8	50.7	35.4
10:09:00	10:09:00	39.4	65.7	45.7	35.3	45.3	42	39.5	65.6	49.2	35.2
10:10:00	10:10:00	43.3	59.6	46.3	38.3	46.1	45.8	43.4	59.6	47.5	38.1
10:11:00	10:11:00	43.6	64.3	50.1	38.6	49.3	46.9	43.7	64.2	52.1	38.2
10:12:00	10:12:00	45.6	64	52	40.9	51.6	48.2	45.6	63.9	52.7	40.1
10:13:00	10:13:00	43.2	58.2	45.5	38.3	45.5	45.1	43.3	58.1	46.4	37.4
10:14:00	10:14:00	39	58	44.4	35.3	44.4	42.5	39.3	58	45.3	34.5
10:15:00	10:15:00	41.2	63	46.1	35.3	45.3	44	41.2	63	48.8	35
10:16:00	10:16:00	40.2	58	43.9	38.3	43.8	41.6	40.5	58.1	45.4	37.9
10:17:00	10:17:00	40.7	57.4	44.8	37.7	44.2	43	40.8	57.4	46.4	36.3
10:18:00	10:18:00	39.8	56.9	43.2	37.8	43.1	42.6	39.9	57.4	44.5	36.4
10:19:00	10:19:00	41.1	58.7	45.8	35.3	45.7	44.2	41.3	58.8	46.8	35.5
10:20:00	10:20:00	40.2	60.2	45.1	38.3	44.1	42.7	40.4	60.3	47	37.1
10:21:00	10:21:00	42.9	59.1	46.6	37.9	46.5	46.2	43	59	47.6	36.3
10:22:00	10:22:00	41.7	58.4	45.1	38.3	44.9	44.3	41.8	58.3	46.1	37.7
10:23:00	10:23:00	40.4	56.5	44.1	37.4	43.4	43.2	40.4	56.4	44.4	35.9
10:24:00	10:24:00	39.4	54.7	40.8	38.1	40.8	40.4	39.6	54.9	42.1	36.8
10:25:00	10:25:00	39	57	42.4	35.3	41.8	41.3	39.2	56.7	43.6	35.1
10:26:00	10:26:00	38.2	57.2	41.9	35.3	41.7	40.6	38.5	57.4	44.3	35.3
10:27:00	10:27:00	40.6	64.7	45.7	35.9	45.2	42.5	40.8	64.5	49.7	36.5
10:28:00	10:28:00	38.8	63.4	44.2	35.3	43.9	41.1	38.6	63.6	48.7	35.1
10:29:00	10:29:00	39.4	57.9	44	35.3	43.7	41.6	39.6	58.3	45.2	35.1
10:30:00	10:30:00	36.1	52.5	39	35.3	38.4	38.3	36.7	53.4	41.1	34.6
10:31:00	10:31:00	35.5	50.9	38.3	35.3	38	36.1	36	51.8	38.6	33.8
10:32:00	10:32:00	36.3	54.9	38.6	35.3	38.4	38.4	36.8	54.8	39.8	34
10:33:00	10:33:00	35.9	59.7	39.8	35.3	38.2	37.2	36.4	59.5	46.6	33.8
10:34:00	10:34:00	35.4	57.9	38	35.3	37	35.5	34.7	57.9	42.9	32.8
10:35:00	10:35:00	35.3	50.4	35.9	35.3	35.7	35.4	34.9	51.1	38.4	33
10:36:00	10:36:00	38.1	52.9	40.1	35.3	40.1	38.9	38.2	52.8	41.2	34.1
10:37:00	10:37:00	36.1	52.8	38.4	35.3	38.4	37.7	37	52.7	39.7	34.6
10:38:00	10:38:00	36.8	52.5	38.7	35.3	38.6	38.4	37.3	53	40.3	34.1
10:39:00	10:39:00	36.6	53.6	40	35.3	39.8	38.6	37.1	54.2	41.1	34.6
10:40:00	10:40:00	36.8	62.8	44.5	35.3	44.1	38.4	36.7	63.1	48.8	33.9
10:41:00	10:41:00	36.9	64	45.4	35.3	44	39.2	37.4	64.1	49.2	34
10:42:00	10:42:00	36.9	54.9	41.5	35.3	41.1	38.5	37.6	55	43.3	35.4
10:43:00	10:43:00	37.1	54.5	40.3	35.3	40.2	39.7	37.5	54.3	41.6	34.3
10:44:00	10:44:00	35.4	51.7	36.7	35.3	36	35.5	35.8	52.1	39.6	33.7
10:45:00	10:45:00	37	54.7	40.2	35.3	40.2	39.6	37.6	54.5	42.3	34.6
10:46:00	10:46:00	38.4	55.2	42.3	35.3	42	40.2	38.6	55.4	43.8	35.6
10:47:00	10:47:00	37.8	53	38.8	35.3	38.6	38.5	37.8	53	40.4	35.1
10:48:00	10:48:00	35.7	51.4	37.9	35.3	37.7	36.9	36.3	51.7	39.2	33.5
10:49:00	10:49:00	35.3	51.1	35.8	35.3	35.6	35.4	35.5	51.5	38.3	33.2
10:50:00	10:50:00	36.6	53.2	38.9	35.3	38.7	38.4	37	53.4	41	33.8
10:51:00	10:51:00	36.5	52.3	38.6	35.3	38.5	38.4	36.9	52.5	40.2	33.5
10:52:00	10:52:00	37.2	53.4	39.6	35.3	39.3	38.7	37.4	53.3	41.5	33.9
10:53:00	10:53:00	40.2	58.1	45.1	35.3	44.8	43.8	40.4	58.3	46.9	36.3
10:54:00	10:54:00	40.3	59	45.9	35.6	45.8	43.8	40.3	59.2	47.2	35.5
10:55:00	10:55:00	37.3	54.7	40.5	35.3	40.3	39.6	37.7	54.7	42.3	34.5

10:56:00	10:56:00	38	64.5	44.8	35.3	43.9	39.7	38.3	64.3	49.4	34.3
10:57:00	10:57:00	46	64.3	48.9	38.9	48.8	48.2	46.1	64.2	50.2	39.9
10:58:00	10:58:00	47.1	66.4	52	44.2	51.2	48.8	47.1	66.4	54.1	42.1
10:59:00	10:59:00	42.5	58.7	45.4	39.7	44.9	44	42.6	58.7	47.3	38.6
11:00:00	11:00:00	39.5	60.2	46.5	35.3	45.7	43.5	39.8	60.2	48	34.9
11:01:00	11:01:00	43.9	63	47.9	40.5	47.4	46.2	44	63	50.6	39.1
11:02:00	11:02:00	38.4	58.7	44.7	35.3	43.9	41.9	38.6	58.6	47.1	35.2
11:03:00	11:03:00	40.7	62	46.4	35.3	46.1	44.1	40.8	61.9	48.1	34.8
11:04:00	11:04:00	36	55.2	40.7	35.3	40.4	37.7	35.7	55.1	42.1	32.8
11:05:00	11:05:00	40.8	63.8	48.4	35.3	46.9	44.9	40.9	63.7	50.9	33.6
11:06:00	11:06:00	41.2	63.1	49.8	35.3	49.2	46.2	41.5	63.1	51.2	35.2
11:07:00	11:07:00	42.5	61.2	47.8	38.3	47.4	46.6	42.5	61.4	48.6	37.4
11:08:00	11:08:00	41.9	67.5	51.7	35.3	51.1	46.1	41.9	67.5	54.8	34.8
11:09:00	11:09:00	37.7	55.6	41	35.3	40.5	39.8	37.8	55.3	43.3	33.8
11:10:00	11:10:00	39.1	58.2	44.8	35.3	43.9	42.2	39.4	58.1	46.6	34.4
11:11:00	11:11:00	39.2	60.8	45	35.3	44	42.1	39.1	60.7	47.1	35.2
11:12:00	11:12:00	43.3	61.7	49.3	38.4	48.4	46.7	43.5	61.9	51.1	38.8
11:13:00	11:13:00	45.2	63.6	50	41.3	49.4	47.8	45.2	63.6	51.7	40.8
11:14:00	11:14:00	40.2	57.9	44.5	36.4	44.4	42.6	40.2	58	45.5	35.9
11:15:00	11:15:00	37	54	40.1	35.3	40.2	38.7	37.5	53.8	41.5	35.1
11:16:00	11:16:00	42.6	61.3	45.5	38.7	45.1	44.5	42.7	61.3	48	38.5
11:17:00	11:17:00	44.4	63.6	48.3	38.2	47.8	47.2	44.4	63.6	50.3	36.8
11:18:00	11:18:00	45.9	65.4	51.3	38.3	51.1	50.2	45.9	65.3	52.9	38.1
11:19:00	11:19:00	43	61.6	47.1	38.9	46.8	45.9	43.1	61.6	49.6	37.8
11:20:00	11:20:00	43.1	62	46.5	39.6	46	45.2	43.2	62.1	50	38.6
11:21:00	11:21:00	46.4	70.7	49.5	40.2	49.3	48.7	46.4	70.6	53.4	39.4
11:22:00	11:22:00	37.7	55.7	41.4	35.3	41.2	40.1	37.8	55.8	43.2	34.1
11:23:00	11:23:00	38.7	58.7	45.6	35.3	45.4	42.6	38.8	58.8	47	34.7
11:24:00	11:24:00	41.6	59.9	46	36.1	45.7	44.6	41.8	59.9	48.4	35.8
11:25:00	11:25:00	40.4	57.8	44	38.1	43.4	42.3	40.4	57.7	46.3	36.5
11:26:00	11:26:00	44.1	69.9	49.7	37.8	49.4	47.8	44.1	69.9	52.4	36.3
11:27:00	11:27:00	42.4	74.2	53	35.3	52.4	50.2	42.4	74.2	55.3	34.1
11:28:00	11:28:00	41.4	63.4	47.7	35.3	46.9	45.2	41.3	63.5	50.1	35.2
11:29:00	11:29:00	36.1	53.1	39.3	35.3	38.9	38.4	36.6	52.9	41	34.3
11:30:00	11:30:00	41.4	58.1	45.9	38.3	45.4	43.8	41.7	58	47.1	38
11:31:00	11:31:00	42.8	62	50.2	39.4	49.5	48	43	62.2	52	38.4
11:32:00	11:32:00	46.1	63.7	51.4	40.6	50.1	49.1	46.1	63.7	54.1	39.6
11:33:00	11:33:00	40.8	58.5	45.1	38.3	45	42.4	41	58.7	47.2	36.8
11:34:00	11:34:00	44.8	62.2	49.1	38.6	48.4	47.1	44.9	62.2	51	38.1
11:35:00	11:35:00	40.8	63.8	46	38.3	45.2	43.1	40.8	63.7	49.2	36.7
11:36:00	11:36:00	45	64.6	49.6	38.3	49.4	48	45.1	64.6	51.6	37.5
11:37:00	11:37:00	45.6	62.3	49.8	39.9	49	47.4	45.6	62.3	51.2	38.9
11:38:00	11:38:00	40.9	58.7	44.5	38.3	44.4	43.8	41.2	58.8	45.9	37.4
11:39:00	11:39:00	43.2	62	49.5	37.7	49.1	46.2	43.2	62	50.8	36.5
11:40:00	11:40:00	39.8	60	45.8	35.3	44.5	42.9	40.1	60.1	48.4	35.2
11:41:00	11:41:00	40.3	60.5	45.7	37.8	44.4	42.4	40.4	60.5	48.5	36.4
11:42:00	11:42:00	38.1	60.8	45.4	35.3	44.8	42.7	38	60.8	48.6	34.1
11:43:00	11:43:00	37.3	55.5	40.4	35.3	40.2	39.9	37.7	55.7	42.9	35.2
11:44:00	11:44:00	38.2	56.3	43.1	35.3	43	42.2	38.5	56.2	44.4	34.5
11:45:00	11:45:00	41.7	61	46	35.8	45.7	45.1	42	60.7	47.8	35.3
11:46:00	11:46:00	40.3	58.5	45.2	38.2	44.9	44	40.3	58.5	46.2	36.7
11:47:00	11:47:00	41.5	60.4	46.4	38.3	45.1	43.3	41.7	60.2	49.4	37.9
11:48:00	11:48:00	40	60	46	35.3	45.3	44.4	39.9	60	47.5	33.9
11:49:00	11:49:00	37.3	63.6	44.8	35.3	43.9	39	37.4	63.6	48.3	33.5
11:50:00	11:50:00	36.8	55.9	41.4	35.3	40.5	38.7	37.5	56.4	43.2	34.8
11:51:00	11:51:00	40	64.1	46.1	35.3	45.7	42.9	40.1	63.9	49.4	35
11:52:00	11:52:00	38.5	59.3	45.3	35.3	45	42.6	39	59.4	48.2	34
11:53:00	11:53:00	42.8	60.7	47.3	38.3	47.1	45.7	42.9	60.8	48.4	37.7
11:54:00	11:54:00	46	63.8	50	40	49.9	48.6	45.9	63.8	51.8	38.4
11:55:00	11:55:00	44.4	62.7	50.4	40.5	49.6	48	44.5	62.7	52.1	39
11:56:00	11:56:00	44.7	62.1	49.8	39.4	49.6	47.9	44.6	62.2	50.6	38.2
11:57:00	11:57:00	43.8	61.5	47.6	38.3	47.5	46.9	44	61.7	49.4	37.8
11:58:00	11:58:00	45	62.2	48.5	42.5	47.8	46.9	45.1	62.1	50.4	41.5
11:59:00	11:59:00	44.7	62.2	49.1	41.3	48.9	47.3	44.8	62.2	50	40.7
12:00:00	12:00:00	44.1	60	46.9	41.1	46.7	46	44.2	60	48	40.2
12:01:00	12:01:00	42	58.6	46.2	38.3	46	44.4	42.1	58.8	47	36.9
12:02:00	12:02:00	42.7	63.1	46.1	38.7	45.7	44.3	42.8	63.2	49.4	38
12:03:00	12:03:00	45.4	64.8	48.5	42.2	48	46.9	45.4	64.9	51.1	41.1
12:04:00	12:04:00	44	59.8	46.9	39.8	46.8	45.8	44	60	48.1	38.9
12:05:00	12:05:00	38.4	53.7	40.3	36.5	40.2	39.3	38.5	54	41.6	35.8
12:06:00	12:06:00	39.4	57.4	43.4	35.3	42.5	41.5	39.5	57.5	45.7	35.8
12:07:00	12:07:00	40	56.1	43.1	38.3	42.5	41.5	40.1	56.3	44.5	37.6
12:08:00	12:08:00	43.9	64.6	51.7	38.3	50.8	48.2	44	64.6	53.5	38.6
12:09:00	12:09:00	39.7	59	46.6	35.3	46	43.8	39.8	58.9	47.9	34.4
12:10:00	12:10:00	41.7	64.3	48.9	38.3	48.5	45.1	41.9	64.3	52.1	37.6
12:11:00	12:11:00	40.5	63.2	46.9	36	45.6	42.9	40.4	63.4	48	35.4
12:12:00	12:12:00	37.5	57.5	43.8	35.3	43	41.3	37.6	57.6	46	33.3
12:13:00	12:13:00	39.9	62.1	46.4	35.3	45.7	43.8	39.8	61.9	48.5	34.1
12:14:00	12:14:00	39.4	59.1	46.2	35.3	45.4	42.4	39.7	58.9	47.8	35.4
12:15:00	12:15:00	43.1	60.8	47.4	39.4	47	45.5	43.2	60.8	49.7	37.9
12:16:00	12:16:00	35.7	51.7	39.4	35.3	38.4	37.8	35.7	52	39.4	33.9
12:17:00	12:17:00	36.5	53.7	39.8	35.3	39.2	38.4	36.7	53.6	42	33.9
12:18:00	12:18:00	38.1	55.1	41.5	35.3	41.4	40.7	38.2	54.8	42.6	33.1
12:19:00	12:19:00	36.8	54	40.1	35.3	40.2	39.8	36.7	54.3	42.6	32.6
12:20:00	12:20:00	39.1	63.8	44.7	35.3	44.4	40.8	39.2	63.9	49.1	35.1
12:21:00	12:21:00	36.7	63.2	44.3	35.3	43.5	38.4	36.7	63.4	48.4	33.2
12:22:00	12:22:00	35.3	50.6	35.9	35.3	35.5	35.4	34.7	50.4	38.4	32.8
12:23:00	12:23:00	39.3	58.6	45.3	35.3	45	43.2	39.8	58.7	48.1	34.3
12:24:00	12:24:00	40.9	60	44.7	38.2	44.3	42.5	41	60	45.1	36.8
12:25:00	12:25:00	39.4	59.5	43.5	35.3	43.1	41.9	39.4	59.3	44.7	33.9
12:26:00	12:26:00	35.3	50.7	35.5	35.3	35.5	35.4	34.4	51.2	37.7	32.2
12:27:00	12:27:00	37.9	61.8	47.7	35.3	45.2	43.3	37.7	61.8	50.6	32.1
12:28:00	12:28:00	41.1	63.8	48.8	35.7	47.1	43.6	41	63.9	51.5	35.8
12:29:00	12:29:00	40.4	59.1	45.9	36.8	45.8	43.8	40.5	59.2	47.4	36.1

12:30:00	12:30:00	42.9	63.2	49.1	35.3	48.9	47.4	42.9	63.2	51.4	33.7
12:31:00	12:31:00	39.7	60	46.8	35.3	46.2	43	39.8	60.1	49	33.9
12:32:00	12:32:00	37.4	57	42.3	35.3	41.5	40.2	37.5	57	45	33.9
12:33:00	12:33:00	38	64.2	44.9	35.3	44.3	41.2	38.1	64.3	49.4	33.6
12:34:00	12:34:00	41.9	63.1	48.7	35.3	48.4	46.8	42.1	63	50.7	35.6
12:35:00	12:35:00	40.5	63.4	48.1	35.3	47.5	46.3	40.6	63.2	49.2	34.5
12:36:00	12:36:00	36.7	62.8	44	35.3	43.1	38.4	37.1	62.7	48.7	34.3
12:37:00	12:37:00	37.6	54.8	41.5	35.3	41.1	39.9	38	54.8	43.2	35.1
12:38:00	12:38:00	40.6	59.7	46.7	38.3	46.4	44.1	40.8	59.7	49	37.2
12:39:00	12:39:00	39.8	60.5	46.7	37.8	46.3	42.2	39.9	60.5	48.7	36.5
12:40:00	12:40:00	40.7	58.1	43.9	38.3	43.7	42.5	40.9	58.2	46.3	37.6
12:41:00	12:41:00	42.5	68.5	50.4	35.3	49.3	46.8	42.4	68.5	53.5	35.2
12:42:00	12:42:00	37.3	59.3	43.9	35.3	42.2	40.3	37.6	59.3	47.6	33.9
12:43:00	12:43:00	38.9	57.6	42	36.7	41.5	40.3	38.9	57.7	44.8	35.4
12:44:00	12:44:00	39.1	56.1	41.6	37	41.1	40.3	39.1	56.8	44.4	35.8
12:45:00	12:45:00	42.4	63.4	46.6	39.7	46.4	44.5	42.4	63.2	48.9	38.7
12:46:00	12:46:00	41.9	58.2	44.7	39.4	44.2	43.1	42	58	46.6	38.3
12:47:00	12:47:00	41.4	57.7	43.7	39.5	43.1	42.7	41.5	57.6	45.5	38
12:48:00	12:48:00	42	59.1	44.5	40	44.5	44.1	42.1	59	46.9	39.2
12:49:00	12:49:00	45.4	60.9	49.2	39.5	48.7	47.5	45.5	60.9	50.4	38.6
12:50:00	12:50:00	43.8	62.5	48.4	37.8	48.1	46.5	43.7	62.5	50.3	35.9
12:51:00	12:51:00	38.4	56.1	41.8	35.3	41.1	40.3	38.5	56.1	43.6	35.2
12:52:00	12:52:00	41.1	58	45.6	38.8	45.4	43.9	41.3	58.2	46.7	37.8
12:53:00	12:53:00	43.7	61.2	48	39.9	47.7	46	43.8	61.1	50.3	38.6
12:54:00	12:54:00	42	63.9	45.8	39.3	45.2	43.9	42.1	63.9	48.6	38.4
12:55:00	12:55:00	39.2	63.6	44.8	35.3	44.3	41.1	39.3	63.4	48.8	35.3
12:56:00	12:56:00	37	54.2	39.7	35.3	39.4	38.9	37.8	54	41.5	35
12:57:00	12:57:00	38.5	56.9	43.2	35.3	42.1	40.6	38.8	57.1	45.2	35.9
12:58:00	12:58:00	40.5	60.1	44.4	38.3	44.2	42.7	40.7	60.2	47	37.2
12:59:00	12:59:00	38.2	55.3	41.6	35.3	41.3	40	38.5	55.2	43.2	35.5
13:00:00	13:00:00	37.8	56	39.9	35.3	39.8	38.5	37.7	56.4	41.3	35.5
13:01:00	13:01:00	36.9	56	41.5	35.3	41	38.4	37.2	56.1	43.7	34.6
13:02:00	13:02:00	35.8	51.7	38.4	35.3	38.4	37.9	36.9	51.7	39.7	35.3
13:03:00	13:03:00	38.6	55.2	41	35.3	40.7	40.2	39.1	54.9	42.5	35.7
13:04:00	13:04:00	40.9	56.7	42.4	39.9	42.1	41.7	41.1	56.6	44.2	39.1
13:05:00	13:05:00	41.9	58.8	44.2	40.2	43.2	42.8	42	58.9	46.7	39.6
13:06:00	13:06:00	39.6	56.5	41.2	38.3	40.9	40.4	39.8	56.2	42.9	37.8
13:07:00	13:07:00	38.4	54.4	39	37.9	38.8	38.6	38.4	54.5	41.5	35.8
13:08:00	13:08:00	38.4	56.1	41.4	37.3	40.7	38.8	38.2	56.2	44	36.1
13:09:00	13:09:00	39.1	58.6	43.5	37.1	42.8	41.7	39.2	58.5	46.1	35.7
13:10:00	13:10:00	40.3	65.1	46.1	38.3	45.4	42.2	40.5	65.2	50.1	37.4
13:11:00	13:11:00	42.1	62.9	44.9	39.7	44.8	44.4	42.2	62.8	48	38.8
13:12:00	13:12:00	42	58.1	44.4	38.3	44.1	43.4	42.1	58.2	45.3	37.9
13:13:00	13:13:00	40.3	58.1	42.7	38.3	42.4	41.7	40.4	57.6	45.4	37.8
13:14:00	13:14:00	41.3	60.8	45.8	38.7	45	43.8	41.4	60.8	47.3	38.2
13:15:00	13:15:00	42	58.4	45.5	40	45.2	43.8	42.2	58.3	46.5	39.8
13:16:00	13:16:00	42	60.2	45.9	39.8	44.9	44.1	42.2	60.4	48.2	39
13:17:00	13:17:00	46.1	66.7	52.2	40	51.4	49.8	46	66.7	54	39.6
13:18:00	13:18:00	41.1	58.6	45.3	39.5	44.7	42.2	41.2	58.6	46.8	38.1
13:19:00	13:19:00	38.8	61.6	42.1	38	41.2	40.2	38.8	62	44	36.4
13:20:00	13:20:00	37.1	57.4	40.8	35.3	40.4	39.4	37.5	57.2	43.2	35.7
13:21:00	13:21:00	38.1	62.5	44.5	35.3	43.6	39.5	38.2	62.4	48.5	35.1
13:22:00	13:22:00	38.6	59.9	41.3	38.2	40.7	39.2	38.5	60	43.7	36.8
13:23:00	13:23:00	40.7	67.6	44.4	38.3	44.2	41.9	41	67.4	48.7	38.1
13:24:00	13:24:00	41.4	73.3	50.9	39	47.6	42.4	41.3	73.2	57.3	38.6
13:25:00	13:25:00	38.7	54.3	40.9	38.3	40.5	40.1	39	54.2	42.1	37.3
13:26:00	13:26:00	40.2	55.5	42.9	38.3	42.6	41.9	40.5	55.7	44.3	38.1
13:27:00	13:27:00	40	57.7	41.4	38.3	41.4	40.4	40.1	57.9	42.2	38.1
13:28:00	13:28:00	40.2	56.5	41.9	39.2	41.8	41	40.4	56.4	43.3	38.4
13:29:00	13:29:00	40.7	64.3	45	40	44.7	41.9	40.9	64.4	48.9	39
13:30:00	13:30:00	40.6	63.8	44.5	38.3	44.1	41.5	40.7	63.8	49.4	38
13:31:00	13:31:00	39.6	56.8	41.3	38.3	40.8	40.3	39.8	57	43.8	37.9
13:32:00	13:32:00	39.8	55.9	42.3	38.3	42.4	41.3	40	56.1	43.9	37.3
13:33:00	13:33:00	41.5	59.7	46.6	38.3	46.4	45.1	41.7	59.8	48	37.2
13:34:00	13:34:00	41.6	58	44.1	38.3	44	43.7	41.8	57.7	45.7	37.7
13:35:00	13:35:00	40.8	56.3	44.3	38.3	44	43.4	41.1	56.4	45.5	37.7
13:36:00	13:36:00	41.5	56.4	43.2	40	43.2	42.6	41.7	56.2	43.9	39.5
13:37:00	13:37:00	42.2	57.8	44	40.1	43.7	43.2	42.4	57.8	45.1	39.4
13:38:00	13:38:00	49.8	68.6	54.1	40.9	54	53.2	49.8	68.5	55.5	39.9
13:39:00	13:39:00	41.9	64.8	52.5	38.3	51.8	44.6	41.7	64.7	53.4	38
13:40:00	13:40:00	44.1	61.4	48.4	40.1	48.1	45.3	44.3	61.3	49.6	40.1
13:41:00	13:41:00	46.3	61.4	48.8	43.7	48.4	47.8	46.3	61.4	51	43
13:42:00	13:42:00	43.8	60.4	45.4	41	45.3	44.8	43.9	60.1	46.8	40
13:43:00	13:43:00	42.2	58.9	45	40.1	44.6	43.9	42.3	58.7	45.9	39.7
13:44:00	13:44:00	43.5	60.1	45.7	40.1	45.6	45.2	43.7	60	47.1	39.8
13:45:00	13:45:00	43.8	58.4	45.4	41.3	45.4	45.2	43.9	58.6	46.4	40.5
13:46:00	13:46:00	42	59.5	46.5	38.3	45.8	44.9	42.2	59.5	47.6	38.5
13:47:00	13:47:00	45.4	64.6	49.8	41.5	49.6	48	45.4	64.5	51.6	39.6
13:48:00	13:48:00	43.9	64.8	45.7	42	45.6	45.3	44	64.6	48.4	41.1
13:49:00	13:49:00	45	62.5	50.5	41.9	50.1	47.6	45.1	62.5	52.3	40.7
13:50:00	13:50:00	45.3	63.2	48.7	42.3	48.3	47.7	45.4	63	51.6	41.1
13:51:00	13:51:00	48.8	64.1	51.4	45.7	51.1	50.5	48.9	64	52.6	45.1
13:52:00	13:52:00	51.2	69.1	54.2	47.7	54.1	53.3	51.1	69.1	55.2	47.1
13:53:00	13:53:00	48.9	66.5	52.6	45.5	52.4	51.8	48.9	66.5	54	44.7
13:54:00	13:54:00	51.8	68.2	54.9	46.1	54.8	53.7	51.8	68.2	56.9	45.3
13:55:00	13:55:00	51.5	66.8	53.6	49.5	53.5	53.2	51.4	66.7	54.2	48.5
13:56:00	13:56:00	54	71.2	57.9	49.7	57.7	56.8	53.9	71.1	58.9	48.5
13:57:00	13:57:00	52.2	69.7	55.9	48.1	55.3	54.4	52.2	69.6	57.5	46.7
13:58:00	13:58:00	54.1	71.3	56.6	51.8	56.3	55.8	54.1	71.3	57.8	50.5
13:59:00	13:59:00	50.3	67.5	54.2	47	53.7	52.6	50.2	67.4	55.1	46.1
14:00:00	14:00:00	50.3	68.6	53.1	46.8	53	52	50.3	68.5	54.3	45.9
14:01:00	14:01:00	50.3	70.1	53.2	48	52.8	52.1	50.4	70.1	54.8	47.1
14:02:00	14:02:00	51.2	66.8	54.7	47.5	54.5	53.2	51.1	66.8	55.5	46.7
14:03:00	14:03:00	47.8	65.9	51.6	44.3	51.3	49.9	47.9	65.8	53.6	43.6

14:04:00	14:04:00	46.1	62.5	51.1	43	49.3	47.5	46.1	62.6	50	42.3
14:05:00	14:05:00	49.4	65.9	51.7	46.7	51.6	50.6	49.4	65.8	52.8	46.5
14:06:00	14:06:00	48.2	64.2	50.6	46.1	50.5	50	48.2	64.2	51.5	45.1
14:07:00	14:07:00	48.1	65.1	50.4	46.2	50.3	49.8	48	65	51.5	45.3
14:08:00	14:08:00	50.5	67	54.6	46.7	54.5	53.1	50.5	67.2	55.3	46.7
14:09:00	14:09:00	47.7	63	50.3	44.3	50.2	49.2	47.7	63.1	50.9	43.4
14:10:00	14:10:00	49.9	65.1	52.2	48	52.1	51.8	49.9	65.2	53.4	46.8
14:11:00	14:11:00	51.2	70.7	55.1	47.7	54.9	54	51.2	70.7	56	47.2
14:12:00	14:12:00	48.7	64.1	51.1	45.6	50.9	49.9	48.6	64.1	52.1	44.8
14:13:00	14:13:00	46.8	65.9	50.5	44.8	50.3	49.3	46.9	65.9	51.8	43.8
14:14:00	14:14:00	49.9	69.2	56.2	46.2	55.9	52.8	49.8	69.1	59.1	45.5
14:15:00	14:15:00	45.6	64	49.8	42.2	49.3	48.1	45.6	64.1	50.7	41.7
14:16:00	14:16:00	47.9	66.6	52.7	43.8	52.6	51.6	47.9	66.6	53.4	43.3
14:17:00	14:17:00	43.9	62.7	46.6	41.9	46.5	45.5	44	62.6	49.4	41.1
14:18:00	14:18:00	45.7	63.2	49	42.9	49	48.7	45.7	63.3	50.1	42.3
14:19:00	14:19:00	44.9	60.6	48.2	43.1	48.1	47.2	45.1	60.5	49	42.8
14:20:00	14:20:00	46.5	63.8	50.2	43.6	50.1	48.7	46.5	63.7	51.1	42.7
14:21:00	14:21:00	47.9	65	52.4	43.7	52.2	50.8	48	65	53.5	43
14:22:00	14:22:00	44.6	62.6	50.2	41.3	49.3	48.2	44.5	62.4	50.5	40.7
14:23:00	14:23:00	44.1	59.8	45.8	41.3	45.8	45.5	44.2	59.7	46.8	40.8
14:24:00	14:24:00	42.8	60	45.3	41.3	45.3	44.7	42.9	60.1	46.2	40.4
14:25:00	14:25:00	46	64.6	52	42	51.8	49.6	46.1	64.7	53.2	41.3
14:26:00	14:26:00	44.9	60.6	47.1	42.8	46.8	46.3	45	60.4	48.1	42
14:27:00	14:27:00	44.8	59.6	47.4	42.2	47.3	46.6	44.9	59.9	48.7	41.7
14:28:00	14:28:00	45.3	60.1	47.3	43	47.1	46.9	45.4	60.2	48	42.4
14:29:00	14:29:00	45.4	67.2	46.7	44.5	46.5	46.1	45.5	67.2	49.5	43.5
14:30:00	14:30:00	45.4	61.9	47.4	43.7	47	46.2	45.4	61.9	49.9	42.7
14:31:00	14:31:00	43.6	58.6	45.3	42.2	44.9	44.5	43.7	58.6	46.2	41.7
14:32:00	14:32:00	42.4	60.6	46.1	40.4	44.9	43.2	42.5	60.8	47.9	39.9
14:33:00	14:33:00	43	58.2	44.7	42.1	44.5	43.9	43.2	58.3	45.7	41.5
14:34:00	14:34:00	44.6	60.6	47.5	42.7	47.3	46.6	44.7	60.4	48.7	42.1
14:35:00	14:35:00	46.1	61.9	48	44.8	47.6	46.7	46.1	62	49.8	44.4
14:36:00	14:36:00	46.2	62.6	49	44.8	48.1	47	46.3	62.5	50.9	44.4
14:37:00	14:37:00	46.5	62.6	49.3	44.3	49	47.7	46.5	62.5	51.1	43.8
14:38:00	14:38:00	45.4	60.4	46.9	44.1	46.7	46.4	45.4	60.2	48.5	43.5
14:39:00	14:39:00	46.8	63.9	49.2	44.3	48.6	48.3	46.9	63.9	52.1	43.9
14:40:00	14:40:00	48.4	64.1	51.4	46.7	50.6	49.9	48.4	64.1	53.6	46
14:41:00	14:41:00	48.6	62.9	49.9	47.6	49.6	49.3	48.7	63	50.9	47
14:42:00	14:42:00	49.8	66.7	52.2	47.9	51.9	51	49.8	66.7	55.4	47.3
14:43:00	14:43:00	53.2	67.4	54.3	51.8	54.2	53.9	53.2	67.3	55.2	51.2
14:44:00	14:44:00	53.8	69.1	55.5	52.1	55.3	55	53.8	69.1	56.2	51.4
14:45:00	14:45:00	53.4	71.1	55.5	51.6	55.3	54.8	53.3	71.1	60.1	50.9
14:46:00	14:46:00	52.6	69.3	55.5	50	55.5	54.7	52.7	69.4	56	49.2
14:47:00	14:47:00	53	67.7	54.7	50.9	54.6	54.2	53	67.7	55.7	50.2
14:48:00	14:48:00	54.2	69	55.5	52.9	55.6	55.4	54.2	69	56.2	52.3
14:49:00	14:49:00	54.8	71.2	56.9	52.9	56.9	56	54.8	71.2	58.5	52
14:50:00	14:50:00	55.4	69.8	57.1	53.1	57.1	56.8	55.3	69.8	57.7	52.4
14:51:00	14:51:00	54.6	69.3	56.4	53	56.4	55.9	54.6	69.2	57.2	52.1
14:52:00	14:52:00	54.3	69.7	56.2	52.5	56.1	55.7	54.3	69.8	57.2	52.1
14:53:00	14:53:00	51.7	67	53.6	49.8	53.6	53	51.6	66.9	54.6	49.2
14:54:00	14:54:00	51.7	66.5	53.5	50.1	53.5	52.7	51.7	66.5	54.2	49.1
14:55:00	14:55:00	50	64.1	51.8	48.8	51.6	50.9	50	64.1	52.2	48.1
14:56:00	14:56:00	49	65.5	50.9	47.6	50.8	50.4	49	65.5	52.2	47.2
14:57:00	14:57:00	49.7	64.6	51	48.2	51	50.6	49.7	64.6	51.9	47.8
14:58:00	14:58:00	48.9	63.4	50.2	47.3	50.2	49.6	48.9	63.5	51.2	46.5
14:59:00	14:59:00	47.2	61.6	48.1	46.3	48	47.8	47.2	61.7	48.6	45.5
15:00:00	15:00:00	47.3	65.3	49.7	45.5	48.8	48.3	47.4	65.3	52.1	44.9
15:01:00	15:01:00	46.4	61.8	47.8	45.6	47.4	46.9	46.4	61.9	49.8	45
15:02:00	15:02:00	47.7	63	49.5	46.1	49.2	48.9	47.7	62.8	50.7	45.5
15:03:00	15:03:00	47.9	62.8	50	46	49.7	49.4	48	62.8	50.9	45.7
15:04:00	15:04:00	49	63.5	50.6	47.2	50.5	50.2	49	63.4	51.7	46.3
15:05:00	15:05:00	49.7	65.7	51.8	47.9	51.7	50.7	49.7	65.6	53.1	46.6
15:06:00	15:06:00	48.4	62.5	50.2	46.5	50.2	49.7	48.4	62.5	51	45.9
15:07:00	15:07:00	48.4	63.5	50	46.2	50	49.7	48.5	63.5	50.9	45.5
15:08:00	15:08:00	48.5	63.2	50.2	46.7	49.9	49.4	48.5	63.1	50.9	46
15:09:00	15:09:00	48.3	63.8	51.1	45.8	50.9	50.2	48.3	63.7	52	45.1
15:10:00	15:10:00	51.6	71.3	55	48.8	54.7	53.4	51.6	71.2	56.1	48.7
15:11:00	15:11:00	50.2	65.9	54.2	47.2	54.2	52.8	50.3	66	55	46.3
15:12:00	15:12:00	50.3	65.3	53.3	48.7	53.3	51.9	50.3	65.3	54.1	47.6
15:13:00	15:13:00	51.5	66.6	54	49.6	54	52.8	51.5	66.5	55.3	48.8
15:14:00	15:14:00	52.2	66.8	54	50.5	54.1	53.6	52.2	66.9	54.9	49.9
15:15:00	15:15:00	51	66	53.8	49.2	53.6	52.8	51	66.1	54.6	48.3
15:16:00	15:16:00	52.6	68.8	55.2	50.1	55.2	54.6	52.6	68.8	56.1	49.4
15:17:00	15:17:00	52.1	67.7	55	49.7	54.7	53.9	52.1	67.7	55.7	49.1
15:18:00	15:18:00	52.9	68.8	56.3	50.3	56	55.2	52.9	68.7	57	49.8
15:19:00	15:19:00	50.8	67.1	53.3	48.8	53.2	52.4	50.8	67.1	54.2	48.1
15:20:00	15:20:00	50.5	66	51.9	48.9	51.7	51.2	50.5	66.1	52.9	48.4
15:21:00	15:21:00	51	66.8	53.3	48.8	53	52	50.9	66.9	55.2	47.9
15:22:00	15:22:00	50.2	66.4	51.8	48.4	51.7	51.3	50.2	66.3	52.8	47.5
15:23:00	15:23:00	50.5	65.2	51.9	49.3	51.7	51.3	50.5	65.2	52.8	48.6
15:24:00	15:24:00	50.4	64.4	52.4	48.6	52.3	51.8	50.3	64.6	52.9	47.8
15:25:00	15:25:00	52.7	67.4	54	50.4	54	53.8	52.7	67.4	55.1	49.6
15:26:00	15:26:00	53.6	68	54.9	51.5	54.9	54.5	53.6	67.9	56.1	50.6
15:27:00	15:27:00	53	69.2	56.1	51.5	55.8	54.4	53	69.1	57.4	50.8
15:28:00	15:28:00	52.3	66.6	53.5	51.2	53.4	53.1	52.3	66.5	54.1	50.5
15:29:00	15:29:00	52.9	69.8	54.9	51.1	54.8	54.3	52.9	69.8	57.4	50.3
15:30:00	15:30:00	54.7	71	56.5	53.3	56.2	55.8	54.7	71.1	58.7	52.6
15:31:00	15:31:00	56.6	71.6	58.8	55	58.5	57.9	56.6	71.6	60	53.9
15:32:00	15:32:00	57	75.5	59.3	54.4	59.1	58.6	56.9	75.4	60.7	53.7
15:33:00	15:33:00	55.5	70.2	57.1	54.1	56.9	56.6	55.5	70.3	57.7	53.5
15:34:00	15:34:00	53.7	73.6	55.4	51.6	55.3	54.8	53.6	73.5	56.7	51.1
15:35:00	15:35:00	51.2	65.9	52.5	49.9	52.5	52.2	51.2	65.9	53	49.2
15:36:00	15:36:00	52.7	77.7	58.1	51.1	55.9	53.8	52.6	77.6	62.9	50.5
15:37:00	15:37:00	54.5	75	58.2	51.9	57.2	56.4	54.5	75	61.3	51.4

15:38:00	15:38:00	64.9	103.4	80.6	55	78.6	73.3	64.1	103.4	86.4	54.1
15:39:00	15:39:00	56.7	71.8	58.7	54.4	58.5	58	56.6	71.8	59.4	53.4
15:40:00	15:40:00	57.8	72.1	59.6	56.3	59.3	58.7	57.8	72	60.6	55.7
15:41:00	15:41:00	59.7	74.7	61.2	57.2	61.1	60.7	59.6	74.6	62.4	56.9
15:42:00	15:42:00	59	75.6	60.9	57.2	60.9	60.4	59	75.6	62.2	56.5
15:43:00	15:43:00	58.7	73.7	61	57.4	60.9	60.2	58.6	73.6	62.1	56.3
15:44:00	15:44:00	59.7	75	63.1	56.6	63	62	59.7	75	63.9	56
15:45:00	15:45:00	61.3	82.8	65.5	59.5	63.7	62.6	61.2	82.8	69.4	58.6
15:46:00	15:46:00	60.8	75.3	63.1	58.7	62.9	62.2	60.8	75.3	64.9	57.9
15:47:00	15:47:00	58.3	75.3	60.6	55.3	60.5	59.8	58.3	75.2	61.4	54.6
15:48:00	15:48:00	58.7	74.1	61.1	56.3	60.9	60	58.6	74.1	62.3	55.6
15:49:00	15:49:00	57.6	72.1	59.2	55.2	59.1	58.8	57.5	72.1	59.9	54.5
15:50:00	15:50:00	57.6	72.9	60.4	55.7	60.3	59.4	57.5	72.9	60.9	55.1
15:51:00	15:51:00	58.7	73.6	60.9	55.5	60.9	60.5	58.6	73.5	61.9	54.8
15:52:00	15:52:00	58	73	59.6	54.9	59.6	59.4	57.9	73	60.9	54.2
15:53:00	15:53:00	57.3	73	59.2	54.9	59.2	58.8	57.3	72.9	60.7	54.4
15:54:00	15:54:00	56	70.4	58.2	54.2	58	57.6	56	70.4	58.9	53.5
15:55:00	15:55:00	55.6	72.1	57	54	57	56.7	55.6	72.1	57.8	53.4
15:56:00	15:56:00	56.4	72	58.5	53.1	58.5	58.1	56.4	72	59.1	52.5
15:57:00	15:57:00	57.2	73.7	59.9	55.2	59.8	59	57.2	73.7	60.6	54.5
15:58:00	15:58:00	57	72.8	58.9	55.1	58.7	58.3	57	72.7	60.1	54.1
15:59:00	15:59:00	56.3	70.9	58.1	55	58	57.5	56.2	70.9	59.2	54.4
16:00:00	16:00:00	55.8	71.1	58.8	54.2	58.6	57.5	55.7	71	61.1	53.7
16:01:00	16:01:00	54.9	70.1	56.6	53.6	56.6	56.4	54.9	70.1	57.3	53
16:02:00	16:02:00	55.5	70	57.3	54.1	57	56.6	55.5	69.9	58.1	53.2
16:03:00	16:03:00	55.3	70.6	57.9	53.9	57.7	56.5	55.2	70.5	58.8	53.4
16:04:00	16:04:00	54.7	71.1	58.1	52.9	56.5	56	54.6	71	61.6	52.3
16:05:00	16:05:00	54.9	70.3	56.5	53.2	56.4	56.1	54.9	70.3	57.2	52.5
16:06:00	16:06:00	55.4	72.1	57.2	53.6	56.7	56.2	55.3	72	60.7	52.9
16:07:00	16:07:00	53.6	68.9	56.1	52.4	55.8	55	53.6	68.9	58.6	51.8
16:08:00	16:08:00	52	67.4	53.7	50.7	53.7	53.2	52	67.4	54.5	50
16:09:00	16:09:00	52	80.9	54.6	50.9	53.8	53.3	52	80.9	58.9	50.4
16:10:00	16:10:00	52.5	75.4	53.5	51.7	53.3	53	52.5	75.3	54.9	51.3
16:11:00	16:11:00	51.4	67.1	52.8	50	52.8	52.6	51.3	67.1	53.6	49.4
16:12:00	16:12:00	50.8	65.2	52.4	50	52.4	52.1	50.8	65.1	53.1	49.3
16:13:00	16:13:00	51.5	66.6	52.7	49.9	52.7	52.4	51.5	66.6	53.9	49.3
16:14:00	16:14:00	51.3	67.3	52.5	50	52.4	52.1	51.3	67.3	54	49.4
16:15:00	16:15:00	50.6	67.9	53	49.6	52.3	51.2	50.6	67.8	56.3	49.2
16:16:00	16:16:00	51.3	65.2	52.6	50.6	52.5	51.8	51.3	65.2	53.6	50.2
16:17:00	16:17:00	51.1	65.6	52.1	49.7	52	51.7	51.1	65.5	53.4	49
16:18:00	16:18:00	51.4	66.6	53.2	50.2	53.2	52.7	51.4	66.5	54	49.7
16:19:00	16:19:00	52.4	66.2	53.9	51.5	53.5	53.2	52.4	66.3	55.2	50.8
16:20:00	16:20:00	53.9	68.8	55.7	52.6	55.6	55	53.9	68.8	56.7	51.9
16:21:00	16:21:00	53.8	68	55	52.8	54.9	54.7	53.8	68	56.1	52.3
16:22:00	16:22:00	53.5	70.1	55.2	52	55	54.6	53.5	70.1	57	51.3
16:23:00	16:23:00	53.1	68.2	54.5	51.7	54.5	54	53.1	68.3	56.2	50.9
16:24:00	16:24:00	52	67.5	53.7	50.8	53.5	52.8	51.9	67.4	54.7	50.2
16:25:00	16:25:00	52.4	68.4	54.8	50.7	54.6	53.7	52.4	68.3	56.9	50.2
16:26:00	16:26:00	51.9	66.5	53.4	50.5	53	52.7	51.9	66.6	54.9	49.9
16:27:00	16:27:00	53.7	68.7	55.9	51.4	55.8	55.3	53.7	68.7	56.8	51
16:28:00	16:28:00	51.1	65.8	53	49.7	52.9	52.6	51.1	65.6	53.6	49.2
16:29:00	16:29:00	55.2	75.1	60.3	50.1	60.2	59.9	55.2	75	60.9	49.2
16:30:00	16:30:00	52.3	72	58.4	49	58.2	56.4	52.1	71.9	58.5	48.4
16:31:00	16:31:00	49.6	65.3	51	48.1	50.8	50.2	49.6	65.2	51.7	47.7
16:32:00	16:32:00	50.2	68.7	52	49.1	51.6	50.9	50.2	68.5	55.3	48.3
16:33:00	16:33:00	51.5	67.3	52.6	50.1	52.6	52.3	51.5	67.3	54.2	49.5
16:34:00	16:34:00	51.1	65.6	52.2	49.9	52.2	52	51.1	65.6	53.4	49.1
16:35:00	16:35:00	51.7	67.8	53.3	50.4	53	52.7	51.7	67.8	55.7	49.7
16:36:00	16:36:00	51.2	66.7	52.8	49.9	52.6	52	51.2	66.7	53.8	49.4
16:37:00	16:37:00	51.4	65.2	52.8	49.9	52.5	52.1	51.4	65.1	54	49.1
16:38:00	16:38:00	49.5	66.1	51	48.3	50.9	50.3	49.5	66	52.8	47.5
16:39:00	16:39:00	49.3	65.6	51.8	47.7	51.5	50.3	49.3	65.6	52.7	47.2
16:40:00	16:40:00	48	64.4	49.9	47.2	49.7	48.7	48	64.3	51.5	46.4
16:41:00	16:41:00	48.2	65.7	51.2	47.1	50.7	49.3	48.2	65.7	52.4	46.5
16:42:00	16:42:00	48.7	63.4	50.5	47.3	50.5	49.7	48.7	63.4	50.9	46.6
16:43:00	16:43:00	62.1	86.3	70.4	50.5	68.5	65.9	62	86.2	73.8	50.6
16:44:00	16:44:00	50.8	71.8	54.6	48.1	54.3	53.8	50.6	71.8	56.5	47.5
16:45:00	16:45:00	48.7	64.3	49.8	47.5	49.5	49.2	48.7	64.4	51.2	46.7
16:46:00	16:46:00	47.9	63.4	50.2	46.5	49.3	48.8	47.9	63.3	53.2	45.9
16:47:00	16:47:00	47.1	63.7	47.9	46	47.9	47.7	47.1	63.5	49.5	45.3
16:48:00	16:48:00	46.9	69.3	49.9	45.7	48.6	47.5	46.9	69.3	54.5	45
16:49:00	16:49:00	46.7	61.8	47.9	45.8	47.7	47.4	46.8	61.8	49	45.2
16:50:00	16:50:00	46.5	61.5	47.1	45.6	47.1	46.9	46.5	61.5	47.9	45.1
16:51:00	16:51:00	46	61.5	47.8	45.2	47.7	46.8	46.1	61.5	49.2	44.7
16:52:00	16:52:00	46.5	67.1	50.1	45.1	48.9	47.6	46.5	67	54.7	44.3
16:53:00	16:53:00	45.9	67	48	44.3	47.9	47.1	45.9	66.9	50.4	43.4
16:54:00	16:54:00	46.7	69.4	55.4	44.8	52.5	47.4	46.6	69.5	58.9	44.1
16:55:00	16:55:00	45.6	60.4	47.4	44.5	47.2	46.6	45.6	60.4	48.2	43.7
16:56:00	16:56:00	46.1	62.4	48.2	44.7	48	47.4	46.2	62.6	49.4	44
16:57:00	16:57:00	45.3	60.3	47.9	43.7	47.7	47.2	45.4	60.4	49.4	43.4
16:58:00	16:58:00	45.8	60.6	47.2	44.7	47	46.6	45.8	60.7	48.4	44.2
16:59:00	16:59:00	47.2	65.9	49.7	45.2	49.2	48.5	47.3	65.8	52.8	44.5
17:00:00	17:00:00	48.6	64.6	51.5	46.9	50.7	50	48.7	64.6	52.4	46.2
17:01:00	17:01:00	49.4	66	51.7	46.9	51.7	51.4	49.4	65.9	52.5	46.3
17:02:00	17:02:00	48.1	62.4	50.1	46.3	49.9	49.3	48	62.4	51.5	45.8
17:03:00	17:03:00	47.9	67.4	52.4	45.4	50	49.3	48	67.4	55.6	44.7
17:04:00	17:04:00	49.5	70.4	57.5	46.4	54.9	50.9	49.2	70.3	62	45.4
17:05:00	17:05:00	50.7	73.6	56	45.1	56	54.1	50.6	73.6	58.3	44.2
17:06:00	17:06:00	45	64.5	46.2	43.9	46	45.8	45	64.4	49.2	42.7
17:07:00	17:07:00	49.2	68.7	56.7	44.6	56.7	54.3	49.4	68.6	58.3	43.8
17:08:00	17:08:00	54.2	74.6	61.8	44.5	61.7	61	54	74.5	62.4	43.8
17:09:00	17:09:00	44.7	62.9	46	43.7	45.8	45.4	44.7	63	47.2	43
17:10:00	17:10:00	44.4	63	47	43.7	46.5	44.9	44.5	63	49	43
17:11:00	17:11:00	44.4	61.8	46	43.7	45.8	45	44.5	61.7	48.4	43.1

17:12:00	17:12:00	44.7	59.7	45.5	44	45.4	45.1	44.7	59.7	46.5	43.3
17:13:00	17:13:00	45.7	63	47.5	44.3	47.3	46.9	45.7	63	50.3	43.3
17:14:00	17:14:00	48.2	64.5	51.6	45.4	51.5	50.9	48.2	64.6	52.6	44.4
17:15:00	17:15:00	47.1	62	48.7	45.2	48.6	48.1	47.1	62	49.4	44.6
17:16:00	17:16:00	45.5	62.1	47.9	43.8	47.6	47	45.4	61.9	48.9	43.3
17:17:00	17:17:00	44.4	60.3	45.7	43.6	45.5	45	44.4	60.3	47.4	42.5
17:18:00	17:18:00	43.9	59.4	45.7	43	45	44.5	43.9	59.4	48.1	42.3
17:19:00	17:19:00	44.7	63.4	48.1	42.9	47.5	46.7	44.7	63.2	51.8	42.2
17:20:00	17:20:00	46.6	65.2	49.5	44.2	48.8	48.1	46.5	65.3	52.8	43.4
17:21:00	17:21:00	49.4	67	53.4	45.3	53	51.8	49.3	66.9	55.2	44.2
17:22:00	17:22:00	52.1	74.5	60.4	44.6	60.1	58.6	52	74.5	61.5	43.7
17:23:00	17:23:00	44.5	62.8	48.8	42.2	48.4	46.6	44.4	62.8	51	41.8
17:24:00	17:24:00	43.4	58.5	45.6	42.2	45	44.5	43.5	58.5	47.5	41.3
17:25:00	17:25:00	45.8	68	51.6	43.1	49.5	47.2	45.8	68.1	54.7	42.2
17:26:00	17:26:00	53.6	69.4	57.2	48.1	57.2	56.5	53.5	69.3	58	47.6
17:27:00	17:27:00	51.1	67.5	55.7	45.2	55.4	54.6	50.9	67.5	56.7	44.2
17:28:00	17:28:00	48.2	67.8	51	45.3	50.8	49.9	48.2	67.9	54.4	44.3
17:29:00	17:29:00	48.1	68.6	51	45.7	50.2	49.2	48	68.5	54.9	44.4
17:30:00	17:30:00	48.9	69	51.7	46.4	51.4	50.5	48.8	68.9	54.4	45.1
17:31:00	17:31:00	47.8	75.5	52.4	45.3	50.9	49.1	47.7	75.4	58	43.5
17:32:00	17:32:00	45.7	63.8	47.9	43.3	47.8	47.3	45.6	63.7	50.1	42.1
17:33:00	17:33:00	45.3	62.2	50.2	43.4	48.3	47	45.3	62.1	52.9	42.4
17:34:00	17:34:00	45.8	69.2	53.1	43.5	50.1	47.1	45.6	69.2	58.4	42.3
17:35:00	17:35:00	45	60.5	48.9	43.1	48	46.3	44.9	60.6	52	42.4
17:36:00	17:36:00	45.8	62.4	51.8	43.5	50.6	47.4	45.8	62.4	54	42.4
17:37:00	17:37:00	48.2	64.8	52.2	44.3	52	51	48.1	64.8	54.4	43.7
17:38:00	17:38:00	46.8	63.8	51.9	43.7	51.1	49.9	46.8	63.8	53.3	42.9
17:39:00	17:39:00	44	59.1	47.2	42.3	46.1	45.1	44	59	48.8	41.7
17:40:00	17:40:00	42.9	58.6	43.8	42	43.8	43.5	43	58.6	45.3	41.2
17:41:00	17:41:00	43	61.4	44.7	42.1	44.5	44	43.1	61.4	47.9	41
17:42:00	17:42:00	42.7	59.4	45.5	42.1	44.6	43.3	42.8	59.5	48.2	41.4
17:43:00	17:43:00	44.1	58.2	45.7	42.3	45.4	45	44.1	58.1	47.1	41.8
17:44:00	17:44:00	42.6	60.7	44.3	41.9	44.2	43.3	42.6	60.6	45.4	40.8
17:45:00	17:45:00	42.6	57.1	44.5	41.6	44.2	43.3	42.7	57.2	45.4	41
17:46:00	17:46:00	42.3	56.9	44.4	41.2	43.9	43.2	42.3	56.7	44.8	40.3
17:47:00	17:47:00	43.5	59.4	47.9	41.1	47.7	46.7	43.6	59.1	48.7	39.9
17:48:00	17:48:00	47	62.4	54.4	42.7	53.7	49.8	47.1	62.2	55.8	41.9
17:49:00	17:49:00	54.8	67.2	59.4	49.4	58.6	57.7	54.7	67.2	60.5	44
17:50:00	17:50:00	50.8	68.1	57.9	42.2	57.8	55.5	50.5	68.1	58.5	41.2
17:51:00	17:51:00	47.8	64.5	50	45.8	49.8	49.3	47.7	64.6	50.8	44.1
17:52:00	17:52:00	49.2	63.9	51.9	45.6	51.6	50.9	49.2	63.8	54	44.7
17:53:00	17:53:00	51.7	67	54.4	44	54.2	53.2	51.6	66.8	56	42.5
17:54:00	17:54:00	49.6	68.5	52.7	45.5	52.3	51.6	49.6	68.5	54.6	44.4
17:55:00	17:55:00	48.2	67.3	52	44.4	51.6	50.5	48	67.2	53.8	43.4
17:56:00	17:56:00	47.9	70.7	50.9	45	50.6	49.9	47.9	70.7	55.4	43.3
17:57:00	17:57:00	49.5	73	54.6	46	54.4	53.7	49.4	72.9	55.9	44.5
17:58:00	17:58:00	46.6	65.3	49.7	44.2	49.1	48.1	46.5	65.3	51.4	42.6
17:59:00	17:59:00	47.6	65.1	49.6	45.8	49.3	48.8	47.5	65.1	51.2	43.7
18:00:00	18:00:00	48.7	64.6	50.9	45.7	50.6	49.9	48.6	64.5	52.1	44.7
18:01:00	18:01:00	54.6	75.2	60	46.5	59.8	58.8	54.6	75.2	61	45.3
18:02:00	18:02:00	49.6	76.3	58.4	43.6	57.9	57	49.2	76.2	59.2	42.2
18:03:00	18:03:00	45	60.9	47	43	46.6	45.9	45	60.8	49.7	42
18:04:00	18:04:00	48.2	63.7	52.4	44.9	51.7	49.9	48.1	63.7	54.8	42.6
18:05:00	18:05:00	47.6	70.9	53.9	43	53.1	50.9	47.4	70.9	58.4	42.1
18:06:00	18:06:00	47.6	64.9	53.6	42.9	53.5	50.9	47.4	64.8	55.3	42
18:07:00	18:07:00	44.3	59.5	46.4	43	46.2	45.4	44.3	59.4	47.7	41.7
18:08:00	18:08:00	44.1	75.4	55.8	41.1	52.8	45.4	43.7	75.3	60.7	40
18:09:00	18:09:00	55.1	77.1	62.6	43	62.6	62	55.1	77.1	63.3	42.2
18:10:00	18:10:00	47.8	66.3	55.9	42.5	55.4	52	47.5	66.4	55.6	41.8
18:11:00	18:11:00	43.3	57.5	45	42.2	44.6	43.9	43.4	57.6	45.7	41.3
18:12:00	18:12:00	42.5	58.1	43.9	41.2	43.9	43.2	42.5	58	44.7	40.3
18:13:00	18:13:00	43.2	57.1	46.4	41.2	46.4	45.7	43.2	57.2	48.2	39.7
18:14:00	18:14:00	43.9	59.7	47.7	41.7	47.5	46.4	43.9	59.8	49.4	40.6
18:15:00	18:15:00	44.4	64.5	47.8	41.6	47.6	46.1	44.3	64.6	49	40.9
18:16:00	18:16:00	43.2	58.1	47.5	40.9	47	45.4	43.2	58.1	48.9	39.7
18:17:00	18:17:00	45.6	63.2	49.5	42.3	49.4	48	45.6	63.1	51.1	41.1
18:18:00	18:18:00	47.3	62.7	51.9	42.9	51.7	50.6	47.3	62.7	52.6	42.1
18:19:00	18:19:00	43.7	58.5	46.4	41.2	46.3	45.8	43.7	58.6	47.4	40
18:20:00	18:20:00	42.1	59.3	43.1	41.1	43.2	43	42.2	59.5	46.4	40.2
18:21:00	18:21:00	43.9	59.9	47.4	41.6	47	46	43.9	59.8	48.5	40.6
18:22:00	18:22:00	45	60.5	48.8	43	48.5	46.7	45	60.2	50	42.4
18:23:00	18:23:00	44.3	63.5	46.4	42.9	46.2	45.3	44.3	63.5	49.9	41.4
18:24:00	18:24:00	43.6	61.3	46.9	41.7	46.3	45.4	43.6	61.2	50.4	40.2
18:25:00	18:25:00	46	67.3	48	42.3	47.9	47.4	46.1	67.3	50.5	42.1
18:26:00	18:26:00	44.6	61.7	49.7	42	49.3	47.7	44.4	61.7	51.1	40.9
18:27:00	18:27:00	43.6	63	47.3	42	45.9	45.1	43.6	62.9	50.5	40.8
18:28:00	18:28:00	45.4	74.6	59.4	41.3	56.3	47.6	44.9	74.6	65.4	40.6
18:29:00	18:29:00	45.5	72.3	55	42.2	53.4	47.1	45.4	72.3	61.2	41.6
18:30:00	18:30:00	45	62.3	50.2	42.2	48.2	46.8	45	62.4	54.7	41.5
18:31:00	18:31:00	43.7	61.5	46.8	42.1	46.7	45.2	43.6	61.4	48.5	40.4
18:32:00	18:32:00	42	59.1	46	39.9	45.2	43.9	42	58.8	47.3	38.4
18:33:00	18:33:00	42.2	56.1	45.6	40	44.7	44	42.2	56.1	47.3	38.8
18:34:00	18:34:00	42	59.2	44.2	40.1	43.9	43.4	42.2	59	46.2	39.2
18:35:00	18:35:00	41.8	57	45	40	44.9	43.9	41.8	57.1	46	38.7
18:36:00	18:36:00	46.9	63	52	40.5	51.5	50.6	46.9	63	53.2	40.4
18:37:00	18:37:00	49.8	66.3	53.7	41.2	53.3	52.8	49.7	66.2	54.9	40.3
18:38:00	18:38:00	45.7	62.1	49.4	42.8	49.1	48.1	45.6	62	51.6	42.1
18:39:00	18:39:00	45.1	62.5	50.7	41.3	50.1	48.6	45.3	62.5	51.7	40.7
18:40:00	18:40:00	53	69.6	56.9	49.3	56.7	56.1	52.9	69.5	57.6	48.3
18:41:00	18:41:00	45.3	61.4	49.8	42.1	49.7	48.5	45.2	61.4	50.5	41.2
18:42:00	18:42:00	41.5	58.7	43.8	39.9	43.6	42.5	41.6	58.5	46.1	39.1
18:43:00	18:43:00	39.5	55.1	41.7	38.3	41.6	41.1	39.8	55.2	43.4	37.8
18:44:00	18:44:00	42.5	59.5	46	38.3	45.8	44.1	42.6	59.5	49.2	38.9
18:45:00	18:45:00	42.7	60.7	45.5	41.2	45.4	44.4	42.8	60.8	48.6	40.3

18:46:00	18:46:00	45.3	62.7	49.6	41.6	49.3	48.5	45.4	62.8	50.5	40.7
18:47:00	18:47:00	43.1	62.9	45.4	41.1	45.2	44.8	43.2	62.8	48.1	40.3
18:48:00	18:48:00	43.6	65.5	47	40.4	46.3	45.3	43.5	65.3	49.4	39.1
18:49:00	18:49:00	42.8	63	46.8	41.2	46	44.4	42.9	63	51	39.9
18:50:00	18:50:00	45.4	61.8	47.8	42.3	47.7	47.2	45.4	61.8	48.6	41
18:51:00	18:51:00	45.1	64	48.1	43.3	47.3	46.4	45	64	52.6	42.5
18:52:00	18:52:00	44.6	62.1	49.6	41.9	48.1	46.8	44.5	62	52.3	40.6
18:53:00	18:53:00	49.4	67.3	55	44.8	54.7	53.4	49.4	67.3	56.1	43.5
18:54:00	18:54:00	44.6	59.7	47.7	41.3	47.4	46.6	44.6	59.7	49.1	40
18:55:00	18:55:00	43.6	61.3	46.8	41.2	46.2	45.6	43.6	61.3	50.4	40.4
18:56:00	18:56:00	43.2	59.7	45.7	41.2	45.5	44.4	43.4	59.6	48.6	40.2
18:57:00	18:57:00	43	60.2	45.5	40.9	45	44.4	43	60.3	48.1	39.6
18:58:00	18:58:00	43.3	58.6	46.7	41	46.4	44.9	43.3	58.4	47.9	40.1
18:59:00	18:59:00	42.3	56.8	44	41.3	43.5	43.1	42.4	56.9	45.1	40.6
19:00:00	19:00:00	43.4	59.4	45.8	41.3	45.8	44.7	43.6	59.6	46.7	40.4
19:01:00	19:01:00	44.8	63.5	49.2	42.7	49.1	47.2	44.9	63.5	50.3	42.1
19:02:00	19:02:00	43.4	58.8	46.8	41.8	46.7	45.5	43.5	58.9	48.2	41.1
19:03:00	19:03:00	54.8	72.7	60.6	45.7	60.5	59.5	54.8	72.7	61.3	44.6
19:04:00	19:04:00	42.8	58.5	45.7	41.3	45.2	44.7	42.8	58.3	46.2	40.6
19:05:00	19:05:00	46.2	65	51	41.3	50.7	49.9	46.3	65	52.1	41
19:06:00	19:06:00	40.7	57.2	42.6	38.3	42.5	42.4	40.6	57.4	44.1	37.4
19:07:00	19:07:00	41.2	57.5	43	39.8	42.9	42.5	41.3	57.5	44.5	38.2
19:08:00	19:08:00	42	62.8	45.8	39.9	45.4	44.2	42.1	62.9	48.5	39
19:09:00	19:09:00	43.5	58.9	45	41.9	45	44.8	43.5	58.9	46.2	41.4
19:10:00	19:10:00	42.9	64.2	46.1	40.9	45.7	44.1	43.1	64.1	49.5	39.8
19:11:00	19:11:00	42.4	57.6	45	40.6	44.7	43.8	42.5	57.7	46.4	39.8
19:12:00	19:12:00	51.1	69.2	56.4	43.1	55.8	54.2	51.1	69.2	57.5	42.4
19:13:00	19:13:00	48.5	64.3	53.4	43.8	53.2	52.2	48.4	64.3	54.5	43.1
19:14:00	19:14:00	44.5	60.6	47.4	41.3	47	46.1	44.6	60.8	48.5	40.7
19:15:00	19:15:00	43.7	59.1	47.1	40.6	46.8	45.8	43.7	59.1	49.1	39.7
19:16:00	19:16:00	44.8	62.1	49.2	41	49.1	48	44.9	62.1	50.4	40.5
19:17:00	19:17:00	46.1	65.7	50.5	41.6	50.1	48.6	46.1	65.7	53.5	41.2
19:18:00	19:18:00	42	59.1	45.6	40	44.8	43.6	42	59.2	47.4	39.4
19:19:00	19:19:00	42.4	57.2	45.6	40	45.3	44.6	42.4	57	47.5	38.9
19:20:00	19:20:00	46.8	70.2	55.8	40	55.5	54.2	47.1	70.1	58.5	39.5
19:21:00	19:21:00	52.9	79.1	62.1	42	61.6	60.6	52.6	79.1	64.5	40.9
19:22:00	19:22:00	44	59.7	47.6	41.6	47.4	45.6	44.1	59.7	48.4	40.2
19:23:00	19:23:00	43.7	59.3	45.3	42.2	45.1	44.7	43.7	59.1	47	40.9
19:24:00	19:24:00	47.4	71	52.7	44.2	52	51.4	47.5	71	55.1	42.6
19:25:00	19:25:00	49.4	76.4	54.5	44.5	54.3	53.1	49.2	76.4	59	43.6
19:26:00	19:26:00	46	66.1	48.8	43.5	48.7	47.8	45.9	66	50.9	42.1
19:27:00	19:27:00	44.7	61.5	46.8	42.7	46.5	46.1	44.7	61.5	50	40.9
19:28:00	19:28:00	43.1	61.2	45.6	40.7	45.5	44.6	43.1	61	49.6	39.9
19:29:00	19:29:00	43.2	58.3	46	40.1	45.8	45.2	43.2	58.3	47.4	39.8
19:30:00	19:30:00	49.4	67.3	56.9	41.6	56.1	53.5	49.4	67.4	58.2	40.2
19:31:00	19:31:00	52.4	66.8	57.2	47.3	57	55.2	52.3	66.7	57.9	44.6
19:32:00	19:32:00	45	63.4	51.7	41.3	51.5	48.4	44.8	63.2	53	41.2
19:33:00	19:33:00	44.6	70	50	40	49.5	48.1	44.6	69.9	51.9	39.7
19:34:00	19:34:00	42	64.5	47.1	39.9	46.7	44.3	42.1	64.4	49	39
19:35:00	19:35:00	41.9	58.1	44.7	40	44.3	43.1	42	58.6	45.7	39.4
19:36:00	19:36:00	42.1	61.2	44.5	40	44.5	43.2	42.2	61.2	45.7	39.4
19:37:00	19:37:00	46.4	80.4	56.5	40	54.6	52.6	46.4	80.4	61.7	39.2
19:38:00	19:38:00	45.3	67.2	51.1	41.3	50.4	47.6	45.3	67.2	53.3	40.3
19:39:00	19:39:00	57.7	85.2	66.8	45.8	66.2	64.2	57.7	85.2	69.7	43.2
19:40:00	19:40:00	59.3	85.1	67.7	41.5	67.1	65.6	58.9	85	69.9	40.8
19:41:00	19:41:00	46.1	77.8	55.9	40.1	55.4	53.4	46.3	77.8	58.6	39.7
19:42:00	19:42:00	44.4	77.8	55.2	41.3	54.5	46.3	44	77.8	56.3	40.4
19:43:00	19:43:00	42.2	61.2	47.1	39.8	46.1	43.9	42.3	61.1	48.6	38.8
19:44:00	19:44:00	43.6	62.2	45.8	41.2	45.6	45	43.6	62	47.6	40.3
19:45:00	19:45:00	43.5	60	45.6	41.8	45.5	44.4	43.5	59.9	48.1	39.3
19:46:00	19:46:00	41.5	58.7	44.2	39.8	44	42.6	41.6	58.5	45.6	38.1
19:47:00	19:47:00	41.2	60.5	43.7	39.9	43.2	42.7	41.4	60.5	47.7	38.9
19:48:00	19:48:00	45	60.6	48.3	42.1	48	47.5	45.1	60.5	50	41.5
19:49:00	19:49:00	48.5	66.1	52.6	44.6	52.2	50.7	48.5	66.2	53.7	43.5
19:50:00	19:50:00	50.6	70.6	55.3	47	55.3	53.5	50.5	70.6	58.2	45.7
19:51:00	19:51:00	47.6	67.1	53.7	42.4	53.2	51.1	47.4	67	55.1	41.3
19:52:00	19:52:00	45.6	62.9	50.9	43.1	49.8	47.2	45.6	62.8	53.6	42.2
19:53:00	19:53:00	50	65.7	54.7	45.6	54.6	53.1	50	65.7	55.2	44.6
19:54:00	19:54:00	42.9	59.5	48.9	40.5	47.6	44	42.8	59.4	49	39.6
19:55:00	19:55:00	43.7	64.5	46.9	41.7	46.6	45.6	43.7	64.5	49.3	40.7
19:56:00	19:56:00	44.9	63.5	50.2	42.1	49.5	47.2	45	63.4	51.7	41.2
19:57:00	19:57:00	50.1	68.9	55.3	44.8	55	54.1	50	68.8	56.9	43.6
19:58:00	19:58:00	45.3	63.3	48.6	42.6	48.4	47.3	45.2	63.3	51.8	41.6
19:59:00	19:59:00	45.1	61	48	42.6	47.3	46.5	45	61.1	50.2	41.5
20:00:00	20:00:00	43	60.9	44.9	41.1	44.6	44.1	43	60.9	45.6	40.2
20:01:00	20:01:00	45.9	67.5	51	41.7	50.1	48.3	45.8	67.4	54.4	40.8
20:02:00	20:02:00	49.1	73.1	55.2	43.8	54	51.7	49	73.1	58.2	43.2
20:03:00	20:03:00	43.3	63	46.2	41.2	45.6	44.7	43.3	63	48.5	39.8
20:04:00	20:04:00	50.7	67.7	56.3	41.8	56	55.5	50.8	67.7	57.6	40.6
20:05:00	20:05:00	47.5	64.5	54.6	44.6	54.1	49.7	47.3	64.5	55.1	43.4
20:06:00	20:06:00	47.5	73.9	55.1	42	54.8	52.9	47.4	73.8	56.2	41.1
20:07:00	20:07:00	43.5	64.3	47.9	41.6	47.6	44.7	43.5	64.4	49.9	40.6
20:08:00	20:08:00	43.5	63.2	45.8	41.5	45.6	44.9	43.5	63.2	48.4	40.3
20:09:00	20:09:00	45.5	60.8	49.7	42.3	49.1	47.3	45.4	61	52.1	41.6
20:10:00	20:10:00	43.6	58.3	45.1	42	44.9	44.5	43.7	58.3	46.7	41.3
20:11:00	20:11:00	44.9	62.2	47.7	42.1	47.1	46.5	45	62.1	49.2	41.5
20:12:00	20:12:00	47.1	68.1	51.9	43.1	51.5	50.1	47.1	68	53.5	42.1
20:13:00	20:13:00	43	59.1	46.6	41.2	46.2	45.3	43.1	59	48.5	40.1
20:14:00	20:14:00	47.7	68.1	53.2	43.4	51.5	50.1	47.7	68.1	56.4	42.7
20:15:00	20:15:00	47.5	69	53.8	43	52.8	50	47.4	69	56	41.7
20:16:00	20:16:00	47.7	74.8	56.6	41.9	56.2	52.9	47.7	74.9	60.2	41
20:17:00	20:17:00	45	63.1	50.5	42	50	47.4	45	63.1	52.3	41.2
20:18:00	20:18:00	58.1	80.8	65.9	45.1	65.6	64.7	57.9	80.8	68.3	44.4
20:19:00	20:19:00	50.6	70	56	46.8	55.5	54.1	50.7	70	58.3	45.8

20:20:00	20:20:00	51.9	72.5	59.1	43.4	58.5	57.5	51.6	72.4	61.3	42.1
20:21:00	20:21:00	43.8	62.1	46.9	41.3	46	45	43.8	62.2	50.5	40.4
20:22:00	20:22:00	45.2	63	50.3	40.2	48.1	47.2	45.3	62.8	53.1	39.6
20:23:00	20:23:00	45.4	62	50.8	42	49.6	47.6	45.3	61.8	52.7	40.9
20:24:00	20:24:00	43.2	59.2	45.8	40.3	45.5	45	43.2	59.1	47.8	39.7
20:25:00	20:25:00	43.3	62.3	48.7	40.4	47.5	45.7	43.4	62.3	51.6	40.2
20:26:00	20:26:00	45.3	61.7	50.6	41.3	50.3	48.3	45.2	61.7	52.7	40.7
20:27:00	20:27:00	47.3	69.4	53	42	52.5	51.1	47.3	69.4	54.1	41.2
20:28:00	20:28:00	59.2	86.7	66.8	47	65.5	64.1	59.1	86.7	70.7	46.1
20:29:00	20:29:00	52.4	79.8	64.3	44.4	62.9	58	51.6	79.7	66.1	43.4
20:30:00	20:30:00	44	60.7	46.9	42	46.4	45.6	44	60.6	48.4	40.8
20:31:00	20:31:00	45.7	62.1	49.6	41.4	49.4	48.6	45.8	62	50.4	40.6
20:32:00	20:32:00	42.9	57.9	46.6	40.5	46.3	44.6	42.9	58	47.5	39.9
20:33:00	20:33:00	44.4	62.1	47.5	41.3	47.3	46.6	44.4	62.1	48.8	40.9
20:34:00	20:34:00	47.2	67.2	51.1	43	50.8	49.5	47.2	67.2	53.9	42.4
20:35:00	20:35:00	44.6	64.2	49	42.3	48.9	46.8	44.6	64.1	50.4	41.4
20:36:00	20:36:00	43.7	60.1	46.2	42.1	45.8	44.6	43.7	60.1	48	41.3
20:37:00	20:37:00	48.1	67.4	53.5	41.8	53.4	52.7	48.1	67.3	54.8	41.3
20:38:00	20:38:00	45.3	68.3	51.1	42.1	50.1	47.7	45.3	68.3	53.8	41.4
20:39:00	20:39:00	43.7	60.4	45.8	42.1	45.5	45.3	43.8	60.6	47.5	41.3
20:40:00	20:40:00	43.6	63.6	47.4	41.3	47.2	45.8	43.7	63.5	48.5	40.9
20:41:00	20:41:00	48.3	68.7	55.2	42.3	54.7	53.3	48.5	68.7	56.9	41.9
20:42:00	20:42:00	44.8	70.6	54.5	41.3	53	49	44.4	70.5	54	40.6
20:43:00	20:43:00	46.8	65.6	53.6	41.3	52.3	49.9	46.9	65.5	56.5	41.2
20:44:00	20:44:00	46	66.1	51.6	43.1	50.8	48.6	45.8	66.1	53.6	41.7
20:45:00	20:45:00	45.3	64.5	49.6	42	48.9	47.4	45.2	64.5	55.2	40.1
20:46:00	20:46:00	45.5	67.9	50.5	41.5	48.4	47.2	45.4	67.9	56.9	39.8
20:47:00	20:47:00	57.1	79.9	65.6	42.8	65	64.2	57.2	79.9	66.5	42
20:48:00	20:48:00	64.3	90.5	76	48.3	75.8	70.9	64	90.4	77	47.4
20:49:00	20:49:00	45.6	62.6	49.4	42.2	49.1	48.1	45.6	62.5	50.4	41.6
20:50:00	20:50:00	46	62.4	48.6	43.2	48.2	47.8	46	62.3	50.1	42.6
20:51:00	20:51:00	46.4	65.7	49	44.1	48.8	47.9	46.4	65.7	50	43.4
20:52:00	20:52:00	46.5	65.5	49	44.4	48.8	48.3	46.5	65.5	50.8	43.2
20:53:00	20:53:00	48	71.4	55.6	44.4	54.9	51.6	48	71.4	59.1	43.8
20:54:00	20:54:00	47.1	64.3	51.5	43.5	50.7	48.8	46.9	64.3	52.3	42.6
20:55:00	20:55:00	46.6	66.3	48.9	44.3	48.7	48.2	46.6	66.2	50.9	43.4
20:56:00	20:56:00	47.2	68.5	50.8	44.1	50	48.9	47.2	68.4	53.4	43.3
20:57:00	20:57:00	47.3	61.2	49.2	44.9	49.1	48.9	47.3	61.2	50.2	43.8
20:58:00	20:58:00	44.3	58.4	47.2	41.3	46.8	46	44.3	58.4	48	40.4
20:59:00	20:59:00	46.4	66.8	52.6	41.8	51.7	49.8	46.5	66.8	56.1	41.3
21:00:00	21:00:00	47.9	66.6	53.1	43.5	52.7	50.8	47.8	66.5	54.2	42.9
21:01:00	21:01:00	45.4	64.9	48.5	43.6	48.2	47.3	45.4	64.9	52.4	42
21:02:00	21:02:00	47.1	64.5	50.5	43.7	49.7	49	47.1	64.4	52.8	42.5
21:03:00	21:03:00	44.4	62.5	48.3	42.2	48.2	45.9	44.4	62.3	49.4	41.7
21:04:00	21:04:00	44.9	63.4	47.5	41.7	47.4	46.4	44.9	63.3	48.5	40.9
21:05:00	21:05:00	53.1	77.6	64.2	42.3	64	61.9	53	77.5	65.9	41.2
21:06:00	21:06:00	45.8	62.9	53.3	42.7	51.2	47.4	45.6	62.9	52.2	41.8
21:07:00	21:07:00	44.8	63.4	48.4	42.1	48.2	46.7	44.9	63.5	50.3	41.1
21:08:00	21:08:00	46.3	69.9	52.7	43.4	52.3	48.5	46.3	69.9	55.9	42.8
21:09:00	21:09:00	50	71.5	57.4	46.4	56.4	54.3	50.1	71.4	58.8	44.5
21:10:00	21:10:00	50	68.4	56	44.5	55.6	54.3	49.8	68.4	58.2	43
21:11:00	21:11:00	45.8	68.4	50.7	43.7	49.9	47.9	45.8	68.4	52.8	42.9
21:12:00	21:12:00	43.3	62	46.8	41.1	46.1	45.2	43.3	61.8	51.8	40.2
21:13:00	21:13:00	45.3	67.5	49.9	42.1	49.3	47.7	45.3	67.5	53.3	41.1
21:14:00	21:14:00	44	60.9	47.5	41.3	47.2	46.2	44	61	49.1	40.9
21:15:00	21:15:00	45.4	65.4	49.7	43.1	47.9	46.8	45.4	65.4	53.7	42.6
21:16:00	21:16:00	44.9	62.7	48.3	43	47.8	46.2	45	62.7	50	42.5
21:17:00	21:17:00	46.4	64.8	51.4	43.4	51	48.5	46.5	64.8	52.6	42.7
21:18:00	21:18:00	47.1	63.9	50.3	44.8	49.9	49.1	47	63.9	51.2	43.9
21:19:00	21:19:00	45.1	62.8	47.3	43.1	47.3	46.6	45.2	62.9	50.3	42.3
21:20:00	21:20:00	44.3	62.7	47.1	42.8	46.2	45.2	44.3	62.8	50.1	42
21:21:00	21:21:00	45.1	59.8	47.2	42.7	47.1	46.6	45.2	59.8	48.6	42.1
21:22:00	21:22:00	43.3	60.4	46.2	41.3	46.2	45.5	43.4	60	47.7	40.9
21:23:00	21:23:00	45	62.1	50.3	42.6	49.3	46.8	45	62.1	52.4	41.7
21:24:00	21:24:00	44.5	66.4	47.2	42.2	47	45.6	44.5	66.2	48.8	41.4
21:25:00	21:25:00	44	58.4	46.1	42.9	45.8	45.3	44.1	58.7	47.5	42
21:26:00	21:26:00	46	64	50.2	43.6	49.2	47.7	46	63.9	52.2	42.4
21:27:00	21:27:00	44.6	64.9	48	42.6	47.3	46.4	44.6	64.9	51	41.8
21:28:00	21:28:00	47.8	66	53	43	52.6	51.2	47.8	66	55	42.3
21:29:00	21:29:00	44.1	59.8	47	42.1	46.9	46	44.2	59.8	47.9	41.1
21:30:00	21:30:00	44.7	61	47.5	42.9	47.3	45.8	44.7	61	48.4	41.9
21:31:00	21:31:00	44.7	61.3	47.4	42.7	47.1	46.2	44.7	61.3	48.5	41.8
21:32:00	21:32:00	43.3	58.5	44.7	42.3	44.5	43.9	43.4	58.5	46	41.9
21:33:00	21:33:00	45.3	71.5	51.1	42	50.9	48.5	45.4	71.4	52.3	41.2
21:34:00	21:34:00	47.1	73.9	54.4	42.8	54.1	52.4	47	73.9	55.5	41.5
21:35:00	21:35:00	45.7	69.1	48	43.7	47.8	47.3	45.7	69	52	43
21:36:00	21:36:00	46.5	74.7	56	42.7	53.1	49.4	46.4	74.6	61.8	41.8
21:37:00	21:37:00	45.4	62.3	51	42.5	49.1	47.4	45.2	62.3	51.5	41.7
21:38:00	21:38:00	50.3	75.1	60.5	42.9	59.6	57.1	50.4	75.1	63.9	42
21:39:00	21:39:00	49.7	75.9	61.2	42.7	59.3	54.9	49.2	75.8	63.8	42.2
21:40:00	21:40:00	42.9	58.3	45.1	41.3	44.9	44.2	43	58.3	46.9	40.7
21:41:00	21:41:00	43	62.3	47.1	40.6	46.6	44.9	43.1	62.3	50.4	40
21:42:00	21:42:00	42.7	59.2	44.9	41.3	44.6	43.8	42.7	59.1	47.7	40.7
21:43:00	21:43:00	41.9	63.4	44.4	40.7	44	43.2	42	63.4	46	39.7
21:44:00	21:44:00	42.1	60.1	45.6	40.2	45	43.8	42.2	60.1	48.4	39.6
21:45:00	21:45:00	44.7	79.9	51.2	41.2	48.3	46.5	44.6	79.8	58.7	40.2
21:46:00	21:46:00	43.8	60.4	46.5	41.3	46.1	45.6	43.8	60	48.9	40.6
21:47:00	21:47:00	43.9	68.8	47.3	41.2	46.6	45.8	43.9	68.8	51.6	40.3
21:48:00	21:48:00	51.5	72.3	59.7	41.7	59.6	58.8	51.8	72.2	60.6	40.9
21:49:00	21:49:00	52.8	74.2	61.1	40.9	61.1	60.7	52.5	74.2	61.6	39.7
21:50:00	21:50:00	42.3	63.6	46.8	40.1	45.4	43.6	42.3	63.5	51.3	39.3
21:51:00	21:51:00	42.2	59.6	45.4	39.9	45.1	44.5	42.3	59.7	47.5	38.9
21:52:00	21:52:00	42.5	60	45.5	39.9	45.1	44.4	42.6	60	48	38.9
21:53:00	21:53:00	43.5	60.1	46.9	40	46.7	45.6	43.5	60	47.9	39.3

21:54:00	21:54:00	44	62.7	47	42	46.6	45.9	44.1	62.8	50.9	41.3
21:55:00	21:55:00	44.4	62.8	49.1	40.1	48.5	47	44.3	62.8	51.5	40
21:56:00	21:56:00	41.4	58.7	44.7	39.5	43.9	43	41.3	58.6	46.2	38.4
21:57:00	21:57:00	42.3	59.4	46.6	40	46.3	44.6	42.5	59.5	47.7	39.1
21:58:00	21:58:00	43.9	59.9	46.7	41.6	46.5	45.7	44	59.9	47.8	41.2
21:59:00	21:59:00	44.4	64.1	50.9	41.3	49.9	47.4	44.4	64.2	52.9	40.8
22:00:00	22:00:00	44.4	67.8	49.9	41.3	48.9	47.1	44.3	67.6	53.5	40.5
22:01:00	22:01:00	50.3	71.4	57.1	43.8	56.8	54	50.4	71.4	59.2	42.1
22:02:00	22:02:00	46.5	65.6	53	42.2	52.6	49.7	46.3	65.5	54.6	41.6
22:03:00	22:03:00	47.2	63.5	50.8	43.9	50.5	49	47.2	63.4	52.8	42.9
22:04:00	22:04:00	44.1	60.5	46.8	42.8	46.1	45	44.1	60.5	47	42.1
22:05:00	22:05:00	46	62.4	48.1	43.7	47.7	47.2	46.1	62.3	49.9	43
22:06:00	22:06:00	48.8	67.1	53.5	43.7	53.2	52.2	48.9	67	56	43.1
22:07:00	22:07:00	49.8	65.2	53.6	45.9	53.1	52.7	49.7	65.3	54.8	44.7
22:08:00	22:08:00	50.9	68.1	55.2	45.5	54.5	53.6	50.9	68.2	57.4	44.4
22:09:00	22:09:00	54.2	74.8	60.9	47.9	60.3	59.2	54.3	74.8	63	47
22:10:00	22:10:00	48	71.6	59.5	43.4	58.8	51.6	47.5	71.6	59.8	42.6
22:11:00	22:11:00	49.1	66	51.9	44.2	51.8	51.1	49.1	66	53.4	43.4
22:12:00	22:12:00	44.6	63.8	50.3	41.2	49.4	48.2	44.5	63.8	53	40.3
22:13:00	22:13:00	46.8	64.7	49.8	43.8	49.1	48.3	46.7	64.7	53.6	42.9
22:14:00	22:14:00	44.8	63.4	47.8	42.8	47.3	46.3	44.8	63.5	49.5	41.8
22:15:00	22:15:00	44.6	62.1	47.9	42.2	47.2	46.3	44.7	62.1	49.9	41.6
22:16:00	22:16:00	45.3	63.5	49.4	42.6	48.4	47.9	45.3	63.4	52.5	41.7
22:17:00	22:17:00	44.3	63.2	48.4	41.3	47.8	46.1	44.3	63.1	50.5	40.7
22:18:00	22:18:00	46.4	65.1	51.7	41.7	51	49.7	46.3	65	54	41.1
22:19:00	22:19:00	47.2	74.2	58.7	42.2	57.6	50.2	47.5	74.2	61.3	41.3
22:20:00	22:20:00	48.2	71.8	59	42.1	58.2	54.2	47.8	71.7	60.5	40.9
22:21:00	22:21:00	45.7	63.5	48.9	42.1	48.7	47.9	45.7	63.5	50.7	41.6
22:22:00	22:22:00	47.3	69.8	52.5	42.9	51.8	50.7	47.3	69.6	55.1	41.5
22:23:00	22:23:00	44.8	60.9	47.4	42	47	46.4	44.8	60.7	49.4	40.9
22:24:00	22:24:00	44	60.6	45.7	42.2	45.5	45	44.1	60.6	47.2	41.7
22:25:00	22:25:00	46	66.5	49	42.6	48.6	47.9	46.1	66.4	52.9	41.9
22:26:00	22:26:00	45.7	62.5	48.1	43.9	47.9	47	45.7	62.3	49.6	42.9
22:27:00	22:27:00	45.4	61.8	47.7	43.4	47.4	46.9	45.4	61.7	50.5	42.7
22:28:00	22:28:00	46.6	65	51.8	43.5	50.6	49.5	46.7	65	54.2	42
22:29:00	22:29:00	47.2	67.3	52	43.7	51.1	48.8	47	67.3	55	42.6
22:30:00	22:30:00	46.4	63.7	50.9	43.7	50.5	48.3	46.5	63.7	53	43
22:31:00	22:31:00	46.5	64.2	50.4	43.3	49.9	48.9	46.3	64.2	53.3	42.4
22:32:00	22:32:00	47.7	64.9	52.1	43.9	51.4	50.7	47.6	64.7	54.2	43.3
22:33:00	22:33:00	45.2	63.7	47.6	43.7	47.6	46.2	45.2	63.8	50.3	42.7
22:34:00	22:34:00	46	64.8	49.5	43.5	49	47.7	46.1	64.8	52.3	42.9
22:35:00	22:35:00	46.6	65.1	50.9	44.1	50.1	48	46.6	65	52.9	43.2
22:36:00	22:36:00	45.3	61	47.7	43.4	47.4	46.6	45.4	61	48.7	42.7
22:37:00	22:37:00	46.9	67.2	49.9	44.8	49.1	48.5	46.9	67.3	54.5	44
22:38:00	22:38:00	45.1	64.7	48.5	41.3	48.1	47.3	45	64.7	51.5	40.6
22:39:00	22:39:00	43.9	60.9	47	41.3	46.7	45.6	44.1	60.8	48	40.5
22:40:00	22:40:00	47.1	66.7	51.4	44.5	50.8	48.6	47.1	66.6	54.1	43.7
22:41:00	22:41:00	47.9	64.8	49.9	45.7	49.6	49	47.9	64.7	51.9	44.7
22:42:00	22:42:00	47.6	65.8	51.9	44.8	51.6	50.4	47.6	65.8	54.7	43.6
22:43:00	22:43:00	51.3	67.5	55.9	46.2	55.8	54.4	51.2	67.4	56.7	44.8
22:44:00	22:44:00	50.8	80.4	62	44.5	61.7	54.8	50.6	80.3	64.7	43.2
22:45:00	22:45:00	50.2	83.1	63.8	41.4	63.1	57	50.1	83.1	65.4	41
22:46:00	22:46:00	45	68.5	51.5	41.7	50.5	47.5	44.9	68.4	52.7	41.3
22:47:00	22:47:00	46.6	63.8	49.5	43.9	49.3	48	46.6	63.7	51.8	43
22:48:00	22:48:00	47	63.9	50.6	43.2	50	49.4	47	63.7	52.5	42.4
22:49:00	22:49:00	46	63.7	49.5	42.3	49.1	47.9	46.1	63.6	52.5	41.6
22:50:00	22:50:00	47	64.5	51.2	42.8	50.9	49.2	46.9	64.6	53.2	41.6
22:51:00	22:51:00	47	68.8	56	41.2	55.2	52.1	47.2	68.8	58.5	40.5
22:52:00	22:52:00	46	70.9	53.3	42.8	52.8	49.5	45.8	70.8	53.1	42
22:53:00	22:53:00	45.8	63.6	49.3	42.5	48.9	48.2	45.9	63.6	51.4	41.9
22:54:00	22:54:00	47.8	69.5	54.4	44	52.1	49.9	47.6	69.5	59	42.9
22:55:00	22:55:00	45.7	61.3	47.6	43.8	47.4	47.1	45.8	61.3	49.4	42.9
22:56:00	22:56:00	44.9	63.1	48.3	42.2	48.1	47.2	44.9	63	50.8	41.8
22:57:00	22:57:00	44.4	73.4	54.5	41.2	52.2	45.4	44.3	73.4	58.9	40.2
22:58:00	22:58:00	45	63.2	47.2	42.2	46.7	46.2	45	63	50.1	41.6
22:59:00	22:59:00	43	59.3	45.5	40.6	45.2	44.5	43	59.4	47.7	39.6
23:00:00	23:00:00	45	64	49	41.3	47.9	46.9	45.1	63.9	51.9	40.7
23:01:00	23:01:00	44.4	62.6	48.2	41.3	48.1	47.3	44.3	62.6	51	40.6
23:02:00	23:02:00	46.3	65.1	51.8	42.4	51.2	48.9	46.3	65.3	54.5	42.3
23:03:00	23:03:00	44.2	60.5	47.2	42	46.7	45.9	44.2	60.6	48.8	41.4
23:04:00	23:04:00	45.6	65.4	52.1	42.7	50.9	47.5	45.6	65.4	55.9	42.1
23:05:00	23:05:00	46	67.3	50.3	42.6	49.5	48	45.9	67.2	54.3	41
23:06:00	23:06:00	47.2	68	52.6	44.2	52	50.1	47.2	68	54.8	42.8
23:07:00	23:07:00	45.7	62.9	48.5	42.9	48.4	47.9	45.8	63	51	42.3
23:08:00	23:08:00	45.1	62.2	48.9	42.2	48.4	47.3	45	62.2	49.9	41.7
23:09:00	23:09:00	44.2	61	46.7	42.2	46.2	45.4	44.3	60.9	48	41.7
23:10:00	23:10:00	54.4	73.3	62.5	44.8	60.9	59.6	54.4	73.2	64.6	43.8
23:11:00	23:11:00	50.5	69.9	60.5	44.7	60.2	55	50.1	69.8	61.4	43.2
23:12:00	23:12:00	44.4	69.1	48.4	42.3	46.7	45.8	44.4	69.1	54.5	41.4
23:13:00	23:13:00	48.3	70.4	57.4	42.3	55.6	52.7	48.1	70.4	60.4	41.6
23:14:00	23:14:00	46.9	65.7	51.9	43.7	51.6	50.1	47	65.7	53.8	42.8
23:15:00	23:15:00	65	92.6	74.6	49.9	74.5	72.3	65	92.6	77	49.2
23:16:00	23:16:00	55.5	78	66.2	45	65.8	62.3	54.9	78	66	43.9
23:17:00	23:17:00	47	63.4	49.7	44.2	49.5	49	47	63.3	50.9	43.3
23:18:00	23:18:00	46.2	63.4	49.3	44.6	48.7	47.4	46.2	63.3	51.1	43.6
23:19:00	23:19:00	46.8	65	49.9	44.2	49.1	48.4	46.7	64.9	52.6	43.4
23:20:00	23:20:00	47.5	65.1	50.6	44.2	50.1	49.2	47.5	65	52.9	43.6
23:21:00	23:21:00	53.3	77.1	64.2	45.2	62.1	60	53.6	77.1	66.1	44.5
23:22:00	23:22:00	58.9	82.5	67.7	49.5	67.2	64.8	58.5	82.4	69.9	48.6
23:23:00	23:23:00	51.8	76.2	55.5	49.2	55.1	53.9	51.7	76.1	57.7	47.9
23:24:00	23:24:00	49.8	68.9	52.5	48.7	51.7	50.9	49.8	68.8	55.2	47.8
23:25:00	23:25:00	49.4	65.9	52.2	48	51.8	51.1	49.4	66	54.4	47.2
23:26:00	23:26:00	48.6	84.3	59.1	47.4	54.9	49.1	48.4	84.2	66.9	47
23:27:00	23:27:00	56.7	82.7	65.9	48	65.3	62.7	56.5	82.6	68.3	48.2

23:28:00	23:28:00	49.9	66.7	52.4	48	52.2	51.3	49.9	66.7	54.1	47.2
23:29:00	23:29:00	48.8	69	52.2	47.5	51.8	50.4	48.8	69	54.5	46.9
23:30:00	23:30:00	49	63.9	51.6	47.8	51.5	50.5	49.1	63.9	52.2	47.3
23:31:00	23:31:00	52	85.3	59.5	49.4	56.1	53.6	51.9	85.3	66.9	48.6
23:32:00	23:32:00	61.5	80.8	67.6	50.2	67.4	66.4	61.4	80.8	68.8	49.4
23:33:00	23:33:00	50.7	68.7	54.2	48.5	53.7	52.7	50.6	68.6	57.4	47.3
23:34:00	23:34:00	49	66.6	51.9	47.3	51.7	50.1	49	66.5	53.7	46.7
23:35:00	23:35:00	48.2	65	51.1	46.8	50.6	49.2	48.1	65	53.3	46.4
23:36:00	23:36:00	48.7	67.1	51.6	46.8	51	50	48.7	66.9	54	46.5
23:37:00	23:37:00	48.4	63.2	50.2	47.4	49.9	49.3	48.4	63.2	52	46.8
23:38:00	23:38:00	49.5	65.8	53	47.5	52.6	51	49.5	65.8	54.9	46.9
23:39:00	23:39:00	54	74.2	59.5	48.7	59.1	57.9	54	74.2	62.2	47.9
23:40:00	23:40:00	58.1	80.4	64.5	46.4	63.8	63.1	57.9	80.4	68.2	45.5
23:41:00	23:41:00	47.3	65.5	50.2	44	49.5	49	47.2	65.4	51.5	42.9
23:42:00	23:42:00	47.3	64.6	50.6	43.6	50.3	49.4	47.3	64.5	53.8	42.8
23:43:00	23:43:00	46.4	65.2	49.4	42.9	49.1	48.3	46.4	65.2	51.2	41.9
23:44:00	23:44:00	46.7	67	50.1	43	49.8	49.1	46.7	67	52.1	42.3
23:45:00	23:45:00	46.2	62.1	49.9	44.1	49.5	47.7	46.1	62.2	51.7	43.4
23:46:00	23:46:00	45.5	65.4	48.4	42.7	47.9	47.1	45.5	65.3	52.5	41.7
23:47:00	23:47:00	45.6	64	49.3	43.1	48.6	47.8	45.6	64	51.7	42.3
23:48:00	23:48:00	45.6	69.8	51.1	42.3	50.3	47.7	45.6	69.8	54.4	41.8
23:49:00	23:49:00	46.8	67.7	55.3	43	54.6	50.5	46.7	67.7	57.5	41.8
23:50:00	23:50:00	46	66.1	49.4	43.2	49	47.7	46	66.1	51.4	42.7
23:51:00	23:51:00	46.1	63.1	49.1	43.6	48.8	47.8	46.2	63.1	51.2	42.9
23:52:00	23:52:00	51.4	72	58.6	46.1	58.3	54.1	51.6	72	60	45.9
23:53:00	23:53:00	57.3	75.9	63.9	46.9	63.5	60.9	57.1	75.9	66	46
23:54:00	23:54:00	48.5	68.3	53.8	44.6	53.3	50.9	48.3	68.3	57.6	43.2
23:55:00	23:55:00	45	67.1	48.7	42	47.9	47	45	67	50.9	41
23:56:00	23:56:00	44.1	63	46.2	42.2	46.1	45.2	44.2	63.1	48.5	41.4
23:57:00	23:57:00	43.7	61.5	46.5	42.1	45.6	45	43.8	61.4	48.9	41.4
23:58:00	23:58:00	51.5	77.9	63.4	42.4	61.6	56.7	51.8	77.9	65.9	41.6
23:59:00	23:59:00	56.5	80.9	67.3	42.8	67.1	64.6	56.1	80.9	69.5	42.2
24:00:00	24:00:00	45.2	67	50.8	42.3	49.9	48	45.3	67	53.9	41.9

Serial Number BIJ090010
Start Time 3:12:04 PM 7/23/2014
Run Length 0:30:00 115200
Stop Time 3:42:04 PM

UNIT REV R13B

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information			
Description	Units	Value	
Pre-Cal Level	dB	114	
Date		15:09:26 23-Jul-2014	
Post-Cal Level	dB		
Date			
ReCert Date		Unavailable	

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	5	5
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	8	8
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2	16	31.5	63	125	250	500	1000	2000	4000	8000	16000
		Broadband	Broadband	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz
Lavg	dB	53	52.7	22.3	32.2	39.8	43.3	43.6	45.1	47.3	44.3	38.9	36.4	35.6
Lmax	dB	75.5	77.6	39.8	50.6	61.6	67.2	68.3	69.1	70.7	68.9	63.4	52.5	59.9
Lmin	dB	41.2	40.3	8.2	15.3	26.2	29.9	29.4	31.1	35.9	29.3	32.3	35.3	35.3
Lpk	dB	91.7	91.7	53.6	63.6	76.4	83.3	87	83.3	86.3	86.9	83.5	80.8	78.3
TWA	dB	33	32.7	2.3	12.2	19.8	23.3	23.6	25.1	27.3	24.3	18.9	16.4	15.6
PTWA	dB	53	52.7	22.3	32.2	39.8	43.3	43.6	45.1	47.3	44.3	38.9	36.4	35.6
DOSE	%	0.04	0.04	0	0	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0	0
PDOSE	%	0.59	0.57	0.01	0.03	0.1	0.15	0.16	0.2	0.27	0.18	0.08	0.06	0.05
SEL	dB	107	106.8	76.4	86.3	93.9	97.4	97.7	99.1	101.3	98.4	92.9	90.5	89.6
EXP	p2s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Measurement	Units	Value
LDN	dB	N/A
CNEL	dB	N/A
TAKTMAX (5sec)	dB	N/A
LC-A	dB	N/A

Exceedence	Units	Value
L02	dB	66.9
L10	dB	57.5
L50	dB	47.5
L90	dB	43.8

Receptor 1 (Southwest)
7/23/2016

		Meter 1			Meter 2		
		Count	Percent	Time	Count	Percent	Time
Overload	(OL)	0		00:00:00	0	0	00:00:00
Under-Range	(UR)	0		00:00:00	0	0	00:00:00
Upper Limit	(UL)	0		00:00:00	0	0	00:00:00

Exceedence Table

	0	1	2	3	4	5	6	7	8	9
0	75.5	68.8	66.9	65.4	63.3	61.7	60.5	59.7	59	58.1
10	57.5	56.9	56.4	56	55.6	55.3	55	54.6	54.1	53.6
20	53.2	52.7	52.4	52	51.7	51.5	51.3	51.1	50.9	50.7
30	50.5	50.3	50.1	49.9	49.8	49.6	49.4	49.2	49.1	48.9
40	48.7	48.6	48.4	48.3	48.2	48	47.9	47.8	47.7	47.6
50	47.5	47.3	47.2	47	46.9	46.8	46.7	46.6	46.6	46.5
60	46.4	46.3	46.3	46.2	46.1	46.1	46	46	45.9	45.8
70	45.8	45.7	45.6	45.6	45.5	45.4	45.3	45.2	45.2	45
80	45	44.9	44.8	44.7	44.6	44.5	44.4	44.3	44.2	44
90	43.8	43.7	43.6	43.4	43.2	43	42.9	42.5	42.2	41.9

Raw Stat Table

dB	Count
41.2	6
41.3	130
41.4	193
41.5	72
41.6	77
41.7	86
41.8	114
41.9	217
42	326
42.1	462
42.2	398
42.3	787
42.4	277
42.5	233
42.6	228
42.7	257
42.8	312
42.9	432
43	650
43.1	859
43.2	493
43.3	524
43.4	533
43.5	532
43.6	689
43.7	872
43.8	1329
43.9	701
44	695
44.1	652
44.2	635
44.3	1036
44.4	1251
44.5	915
44.6	892
44.7	930

Statistics Table

	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
41			0	0.11	0.16	0.06	0.06	0.07	0.09	0.18
42	0.28	0.4	0.34	0.68	0.24	0.2	0.19	0.22	0.27	0.37
43	0.56	0.74	0.42	0.45	0.46	0.46	0.59	0.75	1.15	0.6
44	0.6	0.56	0.55	0.89	1.08	0.79	0.77	0.8	1.16	1.35
45	1.05	1.21	0.88	1.16	1.34	1.18	1.03	1.7	1.41	1.42
46	1.67	1.94	1.35	1.47	1.47	1.33	1.22	1.3	1.25	1
47	0.93	0.84	0.74	0.73	0.7	0.71	0.88	0.91	0.93	0.98
48	0.83	0.83	0.64	0.47	0.8	0.88	0.74	0.73	0.55	0.6
49	0.52	0.52	0.57	0.61	0.6	0.62	0.64	0.47	0.58	0.54
50	0.54	0.53	0.51	0.6	0.64	0.58	0.5	0.43	0.47	0.53
51	0.52	0.54	0.52	0.26	0.5	0.49	0.51	0.39	0.36	0.37
52	0.36	0.35	0.27	0.26	0.23	0.26	0.27	0.29	0.3	0.25
53	0.2	0.25	0.2	0.22	0.18	0.21	0.25	0.17	0.17	0.17
54	0.18	0.27	0.25	0.08	0.22	0.26	0.28	0.23	0.22	0.26
55	0.22	0.27	0.38	0.35	0.25	0.26	0.29	0.29	0.29	0.28
56	0.32	0.27	0.22	0.24	0.24	0.23	0.18	0.22	0.2	0.16
57	0.19	0.19	0.19	0.04	0.17	0.21	0.2	0.15	0.13	0.12
58	0.17	0.15	0.14	0.12	0.12	0.13	0.11	0.1	0.11	0.1
59	0.1	0.14	0.15	0.13	0.12	0.11	0.13	0.14	0.11	0.16
60	0.18	0.16	0.13	0.03	0.09	0.09	0.08	0.1	0.09	0.08
61	0.12	0.09	0.07	0.07	0.08	0.08	0.07	0.05	0.05	0.07
62	0.06	0.07	0.05	0.05	0.06	0.06	0.06	0.05	0.09	0.09

Receptor 1 (Southwest)
7/23/2014

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 R1 (Southwest)	0:00:10	0:00:10		56.1	85.7	63.5	48	55.3	85.7	70	45.1
	0:00:20	0:00:20		67.1	91.1	72.1	55.4	67.1	91.1	77.6	47.3
	0:00:30	0:00:30		63.9	91.7	70.8	51	61.4	91.7	75.1	45.7
	0:00:40	0:00:40		56.4	77.5	61	46.3	55	77.5	64.1	43
	0:00:50	0:00:50		51.4	74.6	56.4	45.7	51	74.5	60.3	43.1
	0:01:00	0:01:00		53.8	76.8	60	44.8	53.2	76.8	65.1	42.3
	0:01:10	0:01:10		50	72.4	54.8	44.9	48.7	72.4	60.7	43.6
	0:01:20	0:01:20		50.1	78.9	59.7	43.2	50.3	78.8	64.7	42
	0:01:30	0:01:30		58.6	86.7	66	50.3	57	86.7	71.3	43
	0:01:40	0:01:40		55.7	77.6	59.6	50.9	54.9	77.5	64.1	42.2
	0:01:50	0:01:50		55.8	79.6	62.1	48.3	54.4	79.6	67.1	42.8
	0:02:00	0:02:00		54.3	79.6	57.1	49.6	54.4	79.6	60.9	46.7
	0:02:10	0:02:10		52.6	84.3	58.2	49.2	51.7	84.3	62.6	46.2
	0:02:20	0:02:20		57.7	79.4	62	50.3	57.4	79.4	66.4	49.5
	0:02:30	0:02:30		56.8	81.6	61.2	54	56.3	81.5	65.8	48.6
	0:02:40	0:02:40		51.5	78.2	54	49.8	51.1	78.2	56.3	47
	0:02:50	0:02:50		48.6	76.1	51.4	45.2	48.1	76	53.9	44.3
	0:03:00	0:03:00		47.1	76.4	50.2	44.3	46.7	76.4	54.2	42.6
	0:03:10	0:03:10		48.5	72.1	55.9	44.1	49.5	72.1	58.2	43.2
	0:03:20	0:03:20		64.3	86.6	70.8	50.8	63.6	86.5	72.7	47.4
	0:03:30	0:03:30		47.2	65.3	51.3	42.4	46.4	65.3	52.7	41.3
	0:03:40	0:03:40		42.4	57.9	43.1	41.9	42.4	57.7	44.2	41.1
	0:03:50	0:03:50		60	84.1	67	41.9	60.2	84.1	68.5	41.4
	0:04:00	0:04:00		50.8	68.4	60.6	45.1	46.5	68.2	53	43.9
	0:04:10	0:04:10		44.9	61.8	47	43.9	45.1	61.7	49	43.1
	0:04:20	0:04:20		49.5	64.1	53.5	45	49.6	64.1	54.9	43.9
	0:04:30	0:04:30		55.7	71.6	57.6	50.4	56	71.6	58.6	51
	0:04:40	0:04:40		59	74.4	60.9	55.4	58.9	74.4	63.2	53
	0:04:50	0:04:50		56.8	73.7	59.5	54.1	56.4	73.7	62.2	52.2
	0:05:00	0:05:00		53.1	71.2	55.5	50.8	52.8	71.2	57.5	49.2
	0:05:10	0:05:10		50.9	65.8	53.8	48.6	50.4	65.8	55.1	46.8
	0:05:20	0:05:20		49.3	64.8	50.7	46.9	49.1	64.8	52.1	45.7
	0:05:30	0:05:30		48	70.6	50.3	46.4	47.9	70.6	54.6	44.9
	0:05:40	0:05:40		46.7	65	48.9	43.7	46.5	65.1	51.7	42.5
	0:05:50	0:05:50		46.7	68.5	49.1	44	46.6	68.5	53.8	42.2
	0:06:00	0:06:00		43.6	59.9	45.4	42	43.4	59.7	46.4	41.2
	0:06:10	0:06:10		42.3	56.1	43.2	41.3	42.4	56	44.3	40.3
	0:06:20	0:06:20		42.9	61.7	46	41.2	43.3	61.8	48.9	40.5
	0:06:30	0:06:30		45.3	61.8	46.9	43.8	45.2	61.8	49.2	43
	0:06:40	0:06:40		43.8	63.8	46.7	42.3	43.9	64	50.3	41.2
	0:06:50	0:06:50		44.6	61.5	45.9	43.2	44.6	61.5	47.5	42.1
	0:07:00	0:07:00		45.2	63.7	48.1	43.1	45.1	63.7	50.4	42.3
	0:07:10	0:07:10		44.5	63.5	48	43.2	44.6	63.4	51.4	42.5
	0:07:20	0:07:20		48.8	66.6	52.3	44.2	49.3	66.4	54	43.1
	0:07:30	0:07:30		59.6	83.5	67.7	50.4	60.7	83.4	69.2	48.9
	0:07:40	0:07:40		57.7	77	66.7	47.9	54.6	77	64.5	46.1
	0:07:50	0:07:50		46.7	62.2	48.4	44.8	46.4	62.2	49	44.1
	0:08:00	0:08:00		46.4	66.1	48.2	44.8	46.5	66.1	49.9	44.3
0:08:10	0:08:10		48.2	70.5	52	44.8	48	70.5	54.6	44.1	
0:08:20	0:08:20		50	73	52.1	44.4	50.3	73	55	43.8	
0:08:30	0:08:30		48.8	67.2	50.9	47.5	48.6	67.1	51.9	46.4	
0:08:40	0:08:40		48.7	64.2	50.6	46.4	48.4	64.2	52.3	45.4	
0:08:50	0:08:50		47.4	68.7	49	45.7	47.3	68.7	51.2	44	
0:09:00	0:09:00		46.3	61.8	47.7	44.9	46.4	61.8	49	44.2	
0:09:10	0:09:10		47.8	62	49.4	46.4	48	61.9	50.8	45.7	
0:09:20	0:09:20		50	65.3	51.7	48.5	50.1	65.2	53.1	47	
0:09:30	0:09:30		48.8	63.4	51.2	46.3	48.4	63.3	52.7	45.2	
0:09:40	0:09:40		46.6	65.5	48.8	45.9	46.6	65.5	52.2	45	
0:09:50	0:09:50		46.7	62.3	47.9	45.9	46.8	62.3	48.6	45.4	
0:10:00	0:10:00		46.4	61.2	46.8	45.7	46.4	61.1	48.1	45	
0:10:10	0:10:10		46.2	61.5	46.9	45.4	46.2	61.5	49.7	44.9	
0:10:20	0:10:20		46.9	63.7	47.9	46	47	63.6	49.8	45.1	
0:10:30	0:10:30		50.8	66.1	52.9	47.7	51.2	66.1	53.6	47.1	
0:10:40	0:10:40		55.1	68.7	56.3	52.9	55.3	68.7	57	53.2	
0:10:50	0:10:50		55.4	71.1	57.2	52.8	55.3	71.1	59.5	50.3	
0:11:00	0:11:00		68.2	89.5	74.9	55.8	69.4	89.5	75.8	55.4	
0:11:10	0:11:10		69.7	87.5	75.5	56.3	68.1	87.5	76.1	52.4	
0:11:20	0:11:20		49.1	66.5	56.3	44.8	47.2	66.5	53.1	43.3	
0:11:30	0:11:30		47.4	64.6	50	45.7	47.4	64.5	52.5	44.9	
0:11:40	0:11:40		47.5	66.4	49.3	46.6	47.5	66.4	52.4	44	
0:11:50	0:11:50		46.1	60.5	47.8	45.3	46	60.5	49	44.7	
0:12:00	0:12:00		46.1	60.7	47.2	44.5	46	60.6	49	43.7	
0:12:10	0:12:10		45.5	66.7	48.6	44.6	45.5	66.7	51.9	43.5	
0:12:20	0:12:20		45.5	59.6	46.1	44.6	45.6	59.6	47	43.3	
0:12:30	0:12:30		47.3	66	50.8	45.1	47.3	66	54.1	44	

Start: 3:12:00 PM
End: 3:42:00 PM

L _{eq}
55.6

0:12:40	0:12:40	47.1	64	48.7	45.2	47	64	50.5	44.2
0:12:50	0:12:50	45.2	62.3	48.7	43.6	44.9	62.3	51.7	42.4
0:13:00	0:13:00	42.5	58.4	43.8	42	42.3	58.7	45.3	41.1
0:13:10	0:13:10	42.3	56.9	43.6	41.3	42.3	56.9	46.4	40.4
0:13:20	0:13:20	46.1	73	49.3	41.3	46.1	73	54.6	40.6
0:13:30	0:13:30	47.3	64.5	50.2	45.4	47.1	64.4	52.9	42.5
0:13:40	0:13:40	44.8	61.1	47.9	43.4	44.5	61.1	49.4	42.3
0:13:50	0:13:50	46.7	64.7	48.3	44.7	46.7	64.6	52.3	43.7
0:14:00	0:14:00	47.4	66.2	48.7	45.8	47.4	66	51.9	44.8
0:14:10	0:14:10	46.4	59.7	47.6	45.8	46.6	59.8	48.5	45.3
0:14:20	0:14:20	46.3	62.2	49.4	44.5	46.1	62.1	51.5	43.7
0:14:30	0:14:30	45.3	65.6	49.7	43.9	45.7	65.5	52.9	43.1
0:14:40	0:14:40	46.7	67.6	51.7	43.3	46.8	67.4	55.8	42.4
0:14:50	0:14:50	50.5	70	53.6	47.7	50.1	70	57.4	43.8
0:15:00	0:15:00	45.7	64.7	50.5	43.6	44.7	64.8	50.7	42.1
0:15:10	0:15:10	44	60.9	45	43.1	44.2	60.9	47.4	42.4
0:15:20	0:15:20	44.9	59.3	45.7	44.3	45	59.4	47	43.2
0:15:30	0:15:30	44.3	58	45.1	43.4	44.3	58.3	46	42.7
0:15:40	0:15:40	46.5	66.5	48.7	44.5	46.8	66.4	52.3	43.9
0:15:50	0:15:50	61.1	89.1	66.7	48.8	61.2	89.1	70	50.2
0:16:00	0:16:00	53.3	70.5	59.5	50.4	51.7	70.5	55.5	48.2
0:16:10	0:16:10	47.4	63.7	50.4	44.3	46.8	63.6	49.8	43.6
0:16:20	0:16:20	43.7	61	44.9	42.8	43.7	60.9	45.9	42.1
0:16:30	0:16:30	44.7	65.8	46.8	43.1	44.7	65.7	50.1	42.4
0:16:40	0:16:40	45	60.7	46.2	43.8	45.2	60.6	48.3	43.4
0:16:50	0:16:50	45.9	62.5	46.9	45.2	46	62.3	49	44.8
0:17:00	0:17:00	46.2	60.6	46.8	45.4	46.3	60.6	48.1	44.9
0:17:10	0:17:10	46.2	60.9	46.6	45.9	46.2	60.7	47.4	45.4
0:17:20	0:17:20	48.6	68.7	50.6	45.7	49	68.7	52.1	45.4
0:17:30	0:17:30	57.5	83.8	62.9	50.6	58.4	83.8	63.8	50.7
0:17:40	0:17:40	57.6	76.6	62.9	48.2	56.3	76.5	63	46.2
0:17:50	0:17:50	46.9	68.6	50.5	44.8	46.5	68.6	55.5	43.4
0:18:00	0:18:00	46	63.4	47.2	45.1	46	63.4	50	44.2
0:18:10	0:18:10	45.1	65.3	46.5	43.6	44.9	65.2	48.3	42.9
0:18:20	0:18:20	43.7	68.3	46.8	42.9	43.6	68.3	52.1	42
0:18:30	0:18:30	43.2	56.8	43.8	42.8	43.2	56.5	45	42
0:18:40	0:18:40	45.4	62.6	48.8	43.2	45.5	62.5	51.2	42.7
0:18:50	0:18:50	45.2	58.4	45.7	44.6	45.3	58.4	46.2	43.9
0:19:00	0:19:00	45.2	59.7	45.8	44.4	45.3	59.8	46.8	44
0:19:10	0:19:10	45.8	62.2	46.6	44.8	46	62.1	48.7	44
0:19:20	0:19:20	47.9	70.3	49.3	46.3	48.1	70.3	50.8	45.9
0:19:30	0:19:30	49.7	67.4	52.7	48	49.9	67.6	55.3	46.8
0:19:40	0:19:40	53.5	71	56.8	50.3	53.8	70.9	59.1	49
0:19:50	0:19:50	64.6	87.3	69.7	56.9	64.9	87.3	71.2	59.1
0:20:00	0:20:00	56.4	74.4	65.7	46.8	52.7	74.4	63.1	43.7
0:20:10	0:20:10	43.8	60.2	46.8	42	43.3	60.1	46.6	41.1
0:20:20	0:20:20	43	60.8	45.1	41.9	43.3	61	46.8	41.3
0:20:30	0:20:30	45.5	63.2	47.4	43.7	45.4	63.5	50.7	43.1
0:20:40	0:20:40	44.7	64.2	46.3	43.7	44.8	64.1	49.8	43.4
0:20:50	0:20:50	45.8	61.2	48.2	44.3	46.2	61.3	48.9	43.9
0:21:00	0:21:00	50	65.3	52.1	48.2	50.2	65.3	53.7	48.1
0:21:10	0:21:10	48.5	62.1	51	47.5	48.2	62	51.8	46.8
0:21:20	0:21:20	51.5	65.6	52.9	48.8	51.7	65.6	53.4	48.1
0:21:30	0:21:30	55.5	70.8	56.8	52.3	55.8	70.7	58	52.9
0:21:40	0:21:40	59.3	81	67.3	55.1	60.4	80.9	69.2	53.5
0:21:50	0:21:50	66.9	83.9	69.4	61.1	66.4	83.8	70.1	60.2
0:22:00	0:22:00	54.7	78	61.4	48.8	53	78	62.2	45.7
0:22:10	0:22:10	53.9	78.5	57	47.6	53.5	78.5	61	44.6
0:22:20	0:22:20	45.5	63.3	47.9	43.1	45	63.4	50.9	41.6
0:22:30	0:22:30	44.9	63.5	46.6	43.2	45.1	63.4	48.9	42.5
0:22:40	0:22:40	46.9	67.6	50.9	43.6	46.6	67.4	55.2	42.5
0:22:50	0:22:50	45.2	68.7	49.4	43.5	45.2	68.6	54.8	43.1
0:23:00	0:23:00	44.8	61.3	46	44.2	44.9	61.4	48.9	43.1
0:23:10	0:23:10	45.7	64.7	46.8	44.9	45.7	64.7	50.2	44.2
0:23:20	0:23:20	46.6	65.8	48.5	45.7	46.8	65.7	52.1	45
0:23:30	0:23:30	51.3	72	54.8	47.8	51.2	72	59.2	46.5
0:23:40	0:23:40	59.2	90.5	68.4	47.5	58.5	90.4	73.7	46
0:23:50	0:23:50	54.3	81	61.8	45.1	52.4	81	66.2	43.4
0:24:00	0:24:00	47.2	64.8	50	45.8	47.1	64.8	54.2	44.3
0:24:10	0:24:10	50.2	68	52.6	46.9	50.4	68	55.3	45.6
0:24:20	0:24:20	49.2	66.8	51.5	47.3	49	66.8	55.2	46.4
0:24:30	0:24:30	50	65.9	51.4	48.1	49.7	65.8	53.8	46.8
0:24:40	0:24:40	48.9	64.4	50.7	45.6	48.6	64.2	51.9	44.3
0:24:50	0:24:50	46.4	63.8	48.1	44.7	46.3	63.8	51.3	43.4
0:25:00	0:25:00	46.2	61.4	47.2	44.8	46.1	61.5	49.2	43.9
0:25:10	0:25:10	46	68.3	47	44.9	46.1	68.4	50	44
0:25:20	0:25:20	46.4	64.3	47.5	45.3	46.3	64.3	49.8	44.4
0:25:30	0:25:30	47.8	69.8	50.2	45.7	47.9	69.8	55.1	45
0:25:40	0:25:40	49.5	69	53.5	47.5	49.2	68.9	57	46.6

0:25:50	0:25:50	47	62.5	49.4	45.2	46.8	62.5	51.4	43.8
0:26:00	0:26:00	45.2	58.9	46.2	44.8	45.2	58.9	46.8	44.1
0:26:10	0:26:10	45.9	59.2	47.4	44.2	45.8	59	48.7	43.1
0:26:20	0:26:20	47.3	65.1	51.4	43.9	47.1	65.1	54.5	43.2
0:26:30	0:26:30	44.7	61.5	46.1	44.3	44.8	61.5	48.3	43.5
0:26:40	0:26:40	48.5	67.9	51.8	44.6	48.8	67.7	56.6	44.2
0:26:50	0:26:50	50.5	69.1	52.5	48	50.3	69.1	54.2	44.9
0:27:00	0:27:00	49.5	65	51	47.1	49.2	65	52.7	44.2
0:27:10	0:27:10	51.6	69.7	53.1	48.5	51.7	69.7	56.1	48.2
0:27:20	0:27:20	54	69.2	55.9	51.8	54.1	69.2	57	50.5
0:27:30	0:27:30	62.5	81.3	67.5	54.2	63.2	81.2	68.9	54.4
0:27:40	0:27:40	59.8	75.9	66.2	54	58.4	75.8	65.3	52.6
0:27:50	0:27:50	53.1	67.9	57.1	49	52.3	67.9	57	48
0:28:00	0:28:00	53.8	73.5	56.3	49.3	53.3	73.4	60.5	47.4
0:28:10	0:28:10	49.2	65.4	50.5	47.8	49.1	65.2	53.6	46.7
0:28:20	0:28:20	50.2	66	51.4	49.2	50.3	66.2	53.2	48.3
0:28:30	0:28:30	55.3	73.7	60.1	51	56	73.7	61.1	49.1
0:28:40	0:28:40	59.2	76.7	61.5	57.1	59.2	76.7	63.4	56.3
0:28:50	0:28:50	65.9	82	68.3	61.5	65.8	82	70.3	60.4
0:29:00	0:29:00	57.4	73.2	62.1	55.1	56.5	73.1	60.5	54.1
0:29:10	0:29:10	51.9	74.8	55.1	48.9	51.2	74.8	55.4	46.6
0:29:20	0:29:20	48	64.3	49	46.8	47.8	64.3	51.3	45.3
0:29:30	0:29:30	47.2	63.4	49	45.3	47	63.3	51.5	43.6
0:29:40	0:29:40	46.2	60.6	47.4	44.9	46.1	60.6	49.4	42.9
0:29:50	0:29:50	43.6	59.8	45.3	42	43.3	59.6	47.2	41
0:30:00	0:30:00	42.5	57	43.4	41.8	42.6	56.7	44.6	41.2

Serial Number BIJ090010
Start Time 3:49:04 PM 7/23/2014
Run Length 0:30:00 115200
Stop Time 4:19:04 PM

UNIT REV R13B

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114
Date		15:48:31 23-Jul-2014
Post-Cal Level	dB	
Date		
ReCert Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	5	5
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	8	8
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2	16	31.5	63	125	250	500	1000	2000	4000	8000	16000
		Broadband	Broadband	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz
Lavg	dB	48.3	48.1	26.1	35.4	40.5	40.3	38.4	38.7	40.5	38.5	36.5	36.2	35.4
Lmax	dB	75.6	77.2	39	51.4	68.5	70.2	62.6	63.2	70.1	70.1	66.2	58.5	47
Lmin	dB	37.6	36.5	13.4	19.4	25.8	27.9	28.1	28.8	30.9	29.3	32.3	35.3	35.3
Lpk	dB	88.8	88.7	52.8	60.5	73	76.1	73.4	80.4	83.8	83.3	80.3	75.5	67.3
TWA	dB	28.3	28.1	6.1	15.4	20.5	20.3	18.4	18.7	20.5	18.5	16.5	16.2	15.4
PTWA	dB	48.3	48.1	26.1	35.4	40.5	40.3	38.4	38.7	40.5	38.5	36.5	36.2	35.4
DOSE	%	0.02	0.02	0	0	0.01	0.01	0	0.01	0.01	0	0	0	0
PDOSE	%	0.31	0.3	0.01	0.05	0.11	0.1	0.08	0.08	0.1	0.08	0.06	0.06	0.05
SEL	dB	102.4	102.1	80.2	89.5	94.6	94.4	92.5	92.8	94.6	92.6	90.6	90.3	89.5
EXP	p2s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Measurement	Units	Value
LDN	dB	N/A
CNEL	dB	N/A
TAKTMAX (5sec)	dB	N/A
LC-A	dB	N/A

Exceedence	Units	Value
L02	dB	57.6
L10	dB	49.8
L50	dB	44.3
L90	dB	40.2

Receptor 2 (South)
7/23/2014

		Meter 1			Meter 2		
		Count	Percent	Time	Count	Percent	Time
Overload	(OL)	0	0	00:00:00	0	0	00:00:00
Under-Range	(UR)	7075	6.14	00:01:50	12864	11.16	00:03:21
Upper Limit	(UL)	0	0	00:00:00	0	0	00:00:00

Exceedence Table

	0	1	2	3	4	5	6	7	8	9
0	75.6	65.4	57.6	55	52.9	52	51.2	50.8	50.4	50.1
10	49.8	49.5	49.3	49	48.7	48.5	48.3	48.1	47.9	47.7
20	47.6	47.4	47.3	47.1	46.9	46.8	46.7	46.5	46.4	46.3
30	46.2	46.1	45.9	45.8	45.7	45.7	45.6	45.5	45.4	45.3
40	45.1	45	45	44.9	44.8	44.7	44.6	44.6	44.5	44.4
50	44.3	44.2	44.1	44	43.9	43.8	43.8	43.7	43.6	43.5
60	43.5	43.4	43.3	43.2	43.1	43	42.9	42.8	42.7	42.6
70	42.5	42.4	42.3	42.2	42.1	42	41.9	41.7	41.6	41.5
80	41.4	41.3	41.2	41.2	41.1	41	40.9	40.7	40.6	40.3
90	40.2	40	40	39.9	39.8	39.7	39.2	38.6	38.3	38.2

Raw Stat Table

dB	Count
37.6	9
37.7	87
37.8	32
37.9	27
38	18
38.1	14
38.2	14
38.3	1765
38.4	836
38.5	254
38.6	244
38.7	185
38.8	194
38.9	191
39	246
39.1	228
39.2	97
39.3	199
39.4	269
39.5	242
39.6	293
39.7	314
39.8	568
39.9	749
40	1428
40.1	2407
40.2	592
40.3	541
40.4	642
40.5	482
40.6	581
40.7	623
40.8	724
40.9	891
41	1104
41.1	1233

Statistics Table

	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
37							0	0.07	0.02	0.02
38	0.01	0.01	0.01	1.53	0.72	0.22	0.21	0.16	0.16	0.16
39	0.21	0.19	0.08	0.17	0.23	0.21	0.25	0.27	0.49	0.65
40	1.23	2.08	0.51	0.46	0.55	0.41	0.5	0.54	0.62	0.77
41	0.95	1.07	0.96	1.64	1.31	0.82	0.75	0.84	0.86	0.86
42	0.86	1.03	0.7	1.25	0.99	0.78	0.71	0.8	0.91	1
43	1.23	1.4	1.08	1.03	1.03	1.09	1.23	1.4	1.38	1.07
44	1.07	1.17	1.05	1.21	1.14	1.05	1.08	1.25	1.4	1.3
45	1.08	1.29	0.83	0.75	0.91	0.93	1.08	1.24	1.09	0.97
46	0.97	0.95	0.85	0.76	0.79	0.81	0.82	0.79	0.73	0.71
47	0.71	0.64	0.59	0.6	0.57	0.67	0.75	0.64	0.63	0.62
48	0.59	0.53	0.46	0.33	0.55	0.45	0.41	0.43	0.46	0.37
49	0.37	0.41	0.36	0.43	0.39	0.36	0.36	0.32	0.33	0.34
50	0.37	0.35	0.28	0.31	0.31	0.33	0.29	0.3	0.28	0.29
51	0.25	0.22	0.19	0.08	0.16	0.12	0.09	0.14	0.15	0.13
52	0.13	0.13	0.13	0.09	0.08	0.08	0.12	0.08	0.07	0.08
53	0.1	0.08	0.08	0.07	0.04	0.03	0.03	0.04	0.02	0.03
54	0.03	0.03	0.04	0.02	0.03	0.03	0.04	0.04	0.04	0.07
55	0.07	0.05	0.03	0.04	0.03	0.03	0.05	0.06	0.05	0.03
56	0.02	0.02	0.03	0.02	0.05	0.05	0.04	0.04	0.05	0.03
57	0.03	0.02	0.02	0	0.02	0.02	0.04	0.07	0.02	0.02
58	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 R2 (South)	0:00:10	0:00:10		43.9	83.1	50.6	39.2	43.5	83.1	58.5	37.6
	0:00:20	0:00:20		44.9	68.1	47.8	41.1	44.5	68.1	51.1	38.4
	0:00:30	0:00:30		49.8	86.5	61.7	45.1	50.6	86.4	69.4	41.2
	0:00:40	0:00:40		52.3	83.6	60.4	46	48.8	83.6	65.7	39.9
	0:00:50	0:00:50		46.2	61.7	53.6	42	43.9	61.7	49.5	39.4
	0:01:00	0:01:00		43.3	61.7	45.6	40.5	43	61.7	50.4	37.6
	0:01:10	0:01:10		41.7	60.6	45	39	41.7	60.6	48.3	36.8
	0:01:20	0:01:20		44.4	68.8	48.2	41.3	44	68.8	54.8	38.3
	0:01:30	0:01:30		42.1	60.1	44.9	40.4	42	60.2	49.6	39.4
	0:01:40	0:01:40		45.8	69.2	48.4	42.1	45.7	69.2	51.5	40.7
	0:01:50	0:01:50		48.3	69.8	50.8	44	48.5	69.7	55.1	44.8
	0:02:00	0:02:00		45.4	67.5	49.6	41.2	44.5	67.5	54	39.3
	0:02:10	0:02:10		42.1	71.2	44.8	39.9	42.2	71.2	48.2	38.3
	0:02:20	0:02:20		44.4	64.9	46.7	42.7	44.2	64.8	49	39.4
	0:02:30	0:02:30		46.7	77.5	55	42.1	45.6	77.4	62.6	40.1
	0:02:40	0:02:40		45.5	70.2	49.6	43.5	44.9	70.1	55.4	40.9
	0:02:50	0:02:50		46.1	62.8	49.5	43.1	46.6	62.7	50.9	42.4
	0:03:00	0:03:00		52.1	68.7	54.7	49.5	52.5	68.6	55.7	48.4
	0:03:10	0:03:10		62.6	86.8	72.6	54.7	64.3	86.8	74.5	55.1
	0:03:20	0:03:20		70.8	88.8	75.6	60.7	69.9	88.7	76.4	58.5
	0:03:30	0:03:30		53.8	69.7	60.7	47.8	52	69.6	59.5	44.8
	0:03:40	0:03:40		44.3	59	47.8	42.8	43.9	58.9	48.5	41.7
	0:03:50	0:03:50		43.2	61	44.8	41.7	43	60.8	48.6	40.1
	0:04:00	0:04:00		46.2	71.4	51.5	42.1	46.3	71.4	56.4	41.2
	0:04:10	0:04:10		48.4	66.7	51.2	43.6	47.9	66.7	54.5	41.5
	0:04:20	0:04:20		47.5	68.7	50.7	44.2	47.5	68.7	54.7	42.7
	0:04:30	0:04:30		45.6	62.8	48.8	43.3	45.3	62.7	51.6	41.2
	0:04:40	0:04:40		41.6	57.1	43.6	39.9	41.5	56.9	44.5	38.9
	0:04:50	0:04:50		44.2	63	47.3	41.2	44	62.8	51.6	40.1
	0:05:00	0:05:00		44.5	62.8	47.2	41.1	44.4	62.7	49.1	40.4
	0:05:10	0:05:10		40.7	53.9	41.5	39.7	40.6	54	42.5	38.6
	0:05:20	0:05:20		40.3	54.9	41.1	39.2	40.3	54.4	42.9	38.2
	0:05:30	0:05:30		39.1	56.1	41.9	38.3	39.7	55.9	44.1	38
	0:05:40	0:05:40		46.4	64.4	48.9	41.7	46.7	64.3	51.9	41.7
	0:05:50	0:05:50		45.7	65.1	49.9	42.5	45.4	65.1	54.9	40.4
	0:06:00	0:06:00		41.6	58.4	46.5	38.3	40.9	58.6	47.2	37.7
0:06:10	0:06:10		48.1	66.5	52.5	42.7	48.3	66.4	56.8	40.9	
0:06:20	0:06:20		43.8	61.7	50.4	40.1	42.4	61.5	50.4	39.4	
0:06:30	0:06:30		43.6	60.6	46	40.9	43.9	60.6	48.2	40.1	
0:06:40	0:06:40		44.2	71.1	50.1	40.5	43.8	71.2	56.8	39	
0:06:50	0:06:50		43.1	64.7	48.1	39.9	42.5	64.7	52.7	38.5	
0:07:00	0:07:00		45.4	64.9	50.4	40	45	65.1	53.1	39	
0:07:10	0:07:10		42.1	60.4	45.4	38.9	42.2	60.3	49.8	38.5	
0:07:20	0:07:20		43	62.9	45.4	40.1	42.5	62.8	50	38.6	
0:07:30	0:07:30		42.9	65.1	46	40	42.8	65.1	50.7	37.7	
0:07:40	0:07:40		47	70.9	51.8	42.6	46.7	70.9	56.7	40.2	
0:07:50	0:07:50		44.9	66.7	48.6	41.2	43.9	66.7	55	38.9	
0:08:00	0:08:00		51.3	70.3	55.3	42.2	51.1	70.2	59.4	43.2	
0:08:10	0:08:10		45.4	61.6	47.8	43.2	45.2	61.6	50.6	41.7	
0:08:20	0:08:20		47.6	64.9	50	43.7	47.5	64.9	52.4	42	
0:08:30	0:08:30		49.6	74.6	54.8	46.2	49.5	74.5	61.3	42.7	
0:08:40	0:08:40		52	69.7	55.3	49.6	51.8	69.6	58.1	47.2	
0:08:50	0:08:50		48.4	68.5	53.1	44.4	47.5	68.5	57.2	41.9	
0:09:00	0:09:00		45.9	66.7	47.8	44.4	45.9	66.5	53.3	41.8	
0:09:10	0:09:10		44.8	61.6	47.6	41.8	44.3	61.4	50.7	39.9	
0:09:20	0:09:20		40.5	57.7	42.1	39.9	40.7	57.6	45	38.6	
0:09:30	0:09:30		46.6	65.9	51	41.1	47.1	65.9	54.7	38.9	
0:09:40	0:09:40		47.1	69.7	52.5	42.4	47	69.6	55.7	40.8	
0:09:50	0:09:50		46.7	65.1	52.4	42.9	45.7	65.1	53.9	41	
0:10:00	0:10:00		42.5	58.5	45.7	40.9	41.9	58.3	45.9	38.9	
0:10:10	0:10:10		44.1	61.3	47.7	39.8	44.1	61.3	50.3	38.7	
0:10:20	0:10:20		41	58.1	43.9	39.6	40.9	58	45.9	38.7	
0:10:30	0:10:30		44.4	59.8	45.6	42.8	44.5	59.8	47.6	39.9	
0:10:40	0:10:40		44.5	61.9	46.4	41	44.3	61.7	47.5	39.1	
0:10:50	0:10:50		39.4	55	41.4	38.3	39.2	55.1	43.3	37.3	
0:11:00	0:11:00		39.1	60.2	44	38.3	39.8	60.2	49.5	37.6	
0:11:10	0:11:10		44.5	62.8	46.5	41.2	44.6	62.8	48.6	38.2	
0:11:20	0:11:20		43.2	57.5	45.4	41.3	42.9	57.2	45.4	40	
0:11:30	0:11:30		43.3	62.3	46.3	41.1	43.4	62.4	48.5	40	
0:11:40	0:11:40		42.2	59.4	44.7	40.3	42.1	59.3	46.5	40	
0:11:50	0:11:50		40.2	55.5	41.9	38.3	40.2	55.5	43.9	38.3	
0:12:00	0:12:00		41.9	60.4	45.8	38.3	42.6	60.1	47.9	38.8	
0:12:10	0:12:10		43.9	62.6	46.9	41.2	43.6	62.5	50.2	39.8	
0:12:20	0:12:20		40.7	58.4	42.1	39.6	40.6	58.2	45.9	38.9	
0:12:30	0:12:30		40.6	57.5	42.5	39.5	40.8	57.4	45.2	38.5	

Start: 3:49:00 PM
End: 4:19:00 PM

L _{eq}
52.6

0:12:40	0:12:40	43.8	64.6	47.7	40	43.5	64.6	51.5	38.9
0:12:50	0:12:50	39	54.6	40.2	38.3	38.8	54.5	43.5	37.2
0:13:00	0:13:00	38.3	52.2	38.5	38.3	38.2	52.3	39.7	37.2
0:13:10	0:13:10	38.5	54.3	40.1	37.6	38.5	54.2	43.1	36.5
0:13:20	0:13:20	39.8	56.2	42.4	38.3	40.4	56.3	44.2	38
0:13:30	0:13:30	42.5	62.6	44.3	40.4	42.5	62.6	48.8	38.9
0:13:40	0:13:40	43.6	61	46.9	39.3	43.2	61	49.9	38.2
0:13:50	0:13:50	40.5	58.2	41.4	39.8	40.6	58.1	44.2	38.4
0:14:00	0:14:00	47.6	69.6	52.3	39.4	47.6	69.6	56.9	38.5
0:14:10	0:14:10	49	69.9	51.2	44.4	49	69.9	57.1	42.1
0:14:20	0:14:20	47.4	63	50.9	45	46.7	63	52.1	42.6
0:14:30	0:14:30	46.5	71.3	51.6	42.4	46.3	71.3	57.5	40.3
0:14:40	0:14:40	44.4	63	47.9	41.3	44.1	63	50.8	40.1
0:14:50	0:14:50	45.8	65.1	49.4	43.8	45.3	65.2	52.4	41.6
0:15:00	0:15:00	42.5	62.1	46.8	40.8	42.7	62.1	50.8	40
0:15:10	0:15:10	46.3	67.3	48	44.2	46.1	67.4	51.9	41.2
0:15:20	0:15:20	47	62.6	48.9	44.8	47.1	62.6	50	43.3
0:15:30	0:15:30	50.9	71.3	55.8	46.5	51.6	71.3	58	44.7
0:15:40	0:15:40	56.2	72.2	57.7	54.8	56	72.2	59.1	52.7
0:15:50	0:15:50	50.7	66.2	54.9	46.1	49.6	66.4	53.6	44.2
0:16:00	0:16:00	44.8	62.1	46.4	42.5	44.5	61.9	49	41.3
0:16:10	0:16:10	45.1	62.5	46.6	42.5	45.3	62.4	48.5	41.1
0:16:20	0:16:20	42.8	57.9	45.3	40.7	42.7	58.5	46.9	39.5
0:16:30	0:16:30	44	65.5	48.2	41.6	43.8	65.5	52.5	39.2
0:16:40	0:16:40	50.1	68.2	53.5	44.1	50	68.1	55.5	42.4
0:16:50	0:16:50	46.2	69.5	51.2	42.2	45.6	69.5	56.7	41
0:17:00	0:17:00	47.6	66.8	50.4	43	47.6	66.8	56.3	41.1
0:17:10	0:17:10	43.4	60.4	48.1	40	42.6	60.4	47.9	38.9
0:17:20	0:17:20	40.9	57.1	42.3	40	40.9	57	44.7	38.9
0:17:30	0:17:30	46	63.2	48	40.1	46.3	63.3	51	39.9
0:17:40	0:17:40	43	60.2	46.6	41.5	42.7	60.2	48	40.4
0:17:50	0:17:50	45	66.7	49.6	42.9	44.7	66.7	54.9	41.2
0:18:00	0:18:00	50.2	65.4	53.3	45.1	50.8	65.3	54.2	45.1
0:18:10	0:18:10	68.2	88.8	75.6	53.3	69.2	88.7	77.2	54.1
0:18:20	0:18:20	67	82.1	74.4	54.9	64.7	82	72.6	52.7
0:18:30	0:18:30	49.8	64	54.9	45.7	48.6	64.1	53.6	44.7
0:18:40	0:18:40	45.1	59.7	45.9	44.1	44.9	59.8	47.7	42.9
0:18:50	0:18:50	48.5	64.9	51.4	43.7	48.7	64.8	53.5	42.9
0:19:00	0:19:00	45.8	62.9	48.4	43.5	45.2	62.9	52.3	41.8
0:19:10	0:19:10	46.3	64.2	48	43.3	46.4	64.1	50.4	41.3
0:19:20	0:19:20	47.5	66.8	51	43.5	47	66.9	53.5	41.6
0:19:30	0:19:30	49.6	69.4	53.3	43.7	49.6	69.4	57.4	42.6
0:19:40	0:19:40	47.2	64.4	50.4	44.2	46.5	64.3	51.8	41.7
0:19:50	0:19:50	44.3	62.3	46.8	42.1	44.4	62.5	49.1	39.8
0:20:00	0:20:00	43.2	58.6	45.6	40.1	42.7	58.6	46.9	39.2
0:20:10	0:20:10	45	67	50.5	39.8	45.2	66.9	55.1	38.7
0:20:20	0:20:20	45.4	62.1	47.2	42.8	45.1	62.1	50	40.1
0:20:30	0:20:30	43.5	59.5	45.2	40.6	43.3	59.4	48.6	39.3
0:20:40	0:20:40	41.8	58.6	44.2	40.1	42	58.6	47.6	39
0:20:50	0:20:50	44	60.4	46.2	41.7	44	60.4	48.3	39.9
0:21:00	0:21:00	43.8	62.2	47.4	41.2	44	62.3	51.1	39.7
0:21:10	0:21:10	43.2	59.5	46.4	40.9	42.8	59.6	48.1	39.9
0:21:20	0:21:20	41.8	57.5	43.1	39.8	41.6	57.5	45.5	38.7
0:21:30	0:21:30	40.1	55	40.5	39.7	40	54.9	42.2	38.9
0:21:40	0:21:40	42.6	63.9	45.5	40.1	43	64	50.4	39.5
0:21:50	0:21:50	48.4	64.9	51.1	43.7	48.3	64.8	53.2	41.7
0:22:00	0:22:00	42.8	59.7	46.2	40.1	42.2	59.6	47	39.2
0:22:10	0:22:10	45	67.8	50.9	39.9	45.7	67.8	55.3	39.1
0:22:20	0:22:20	47	64.7	51	43.3	46.3	64.5	52.4	40.6
0:22:30	0:22:30	42.8	63.1	46.9	39.9	42.2	63.1	50.8	38.6
0:22:40	0:22:40	39.5	56.8	40.4	38.3	39.4	56.5	44.3	37.8
0:22:50	0:22:50	42.3	59.4	44.9	40.4	42.7	59.2	47.7	39.7
0:23:00	0:23:00	44.2	60	45.6	42.4	44	60	48.5	40.2
0:23:10	0:23:10	44.8	63.7	48.6	39.8	45.1	63.8	51.4	38.4
0:23:20	0:23:20	45.4	62.8	48	43.1	45	62.8	50.4	40.8
0:23:30	0:23:30	47.3	68.4	51.9	42.8	47.4	68.3	57.1	40.3
0:23:40	0:23:40	47.3	65.1	50.9	41	46.4	65.1	53.7	38.6
0:23:50	0:23:50	44.8	64.1	49.2	41.1	44.7	64.3	52.8	39.9
0:24:00	0:24:00	40.7	56.3	43.7	39.1	40.2	56.5	43	38.2
0:24:10	0:24:10	40.7	63.1	42.7	38.3	41	62.9	47.1	37.8
0:24:20	0:24:20	40.7	57.4	42.3	39.1	40.7	57.2	45	38.2
0:24:30	0:24:30	43.7	65.6	48	40.1	43.7	65.7	49.9	39.3
0:24:40	0:24:40	43.3	61	46.3	40.5	43.1	60.7	48.7	39.7
0:24:50	0:24:50	42.3	59.9	45.6	40	42.1	59.7	49.1	39.1
0:25:00	0:25:00	43	63.1	45.8	40.2	43.1	62.9	48.7	38.7
0:25:10	0:25:10	49.5	70	52.6	42.8	49.6	69.9	56.5	42.2
0:25:20	0:25:20	50.2	66.5	52.3	47.6	50	66.4	55.5	45.8
0:25:30	0:25:30	45	61.8	48	41.9	44.4	61.8	48.7	41.1
0:25:40	0:25:40	45.9	63.9	48.9	41.7	46.1	63.9	51.1	40.9

0:25:50	0:25:50	47.6	66.8	50.6	45.1	47.4	66.9	54.3	42.8
0:26:00	0:26:00	45.4	62.8	48.8	43	45.2	63	51.2	41
0:26:10	0:26:10	48.8	67.7	51.1	45.7	48.6	67.8	54.6	41.5
0:26:20	0:26:20	47.5	67.6	51.2	44.1	47.3	67.5	56.6	41.1
0:26:30	0:26:30	43.9	61.9	47.3	41.3	43.4	61.9	48.8	40.3
0:26:40	0:26:40	44.3	63.6	48.1	41.7	44.7	63.7	51.7	40.2
0:26:50	0:26:50	46.6	63.2	48.8	44.6	46.3	63.2	51.1	42.1
0:27:00	0:27:00	45.4	71	51.1	42	44.8	70.9	57.2	40.5
0:27:10	0:27:10	45.2	64.6	50.2	41.4	45.3	64.6	53.2	40.8
0:27:20	0:27:20	46.8	66.4	50.7	43.1	46.8	66.2	54.1	41.6
0:27:30	0:27:30	47.4	65.1	50.1	44.8	47.1	64.9	52	42.5
0:27:40	0:27:40	47.1	69.7	51.1	44.2	46.8	69.6	55.2	42.5
0:27:50	0:27:50	43.6	59.9	45.6	41.9	43.3	60	49.4	40.1
0:28:00	0:28:00	42.1	59.5	44	41	42	59.3	47.4	39.6
0:28:10	0:28:10	43.3	63.5	47.4	40.9	43.7	63.5	49.7	39.1
0:28:20	0:28:20	43.2	58.7	46.5	41.9	42.7	58.7	47.2	40.4
0:28:30	0:28:30	45.7	65.6	50.8	40.7	46.3	65.4	53.4	39.4
0:28:40	0:28:40	47.7	64.5	50.7	44.2	47	64.5	51.2	41.9
0:28:50	0:28:50	44.8	61.1	47	42.3	45	61.1	49.5	40.9
0:29:00	0:29:00	44.6	60.6	46.9	40.3	44.1	60.4	48.7	38.6
0:29:10	0:29:10	42	61	45.7	39.8	42.4	61.2	48.4	38.5
0:29:20	0:29:20	44.9	61.5	46.6	42	44.7	61.4	48.7	40.8
0:29:30	0:29:30	44.6	60.5	46.7	42.3	44.9	60.5	48.3	41.7
0:29:40	0:29:40	45.5	60	47.1	42.6	45.5	60	48.3	40.4
0:29:50	0:29:50	44.2	61.2	46.5	42.8	43.9	60.9	47.7	40.6
0:30:00	0:30:00	43.5	59.9	45.9	40.9	43.3	59.8	48	39.5

Serial Number BIJ090010
Start Time 4:27:47 PM 7/23/2014
Run Length 0:30:00 115200
Stop Time 4:57:47 PM

UNIT REV R13B

Microphone Information		
Description	Units	Value
Sensitivity	dB	29
Polarization	Volts	0
Meter Range	dB	120
Max Level	dB	140
Meas. Floor	dB	-20

Calibration Information		
Description	Units	Value
Pre-Cal Level	dB	114
Pre-Cal Date		16:26:51 23-Jul-2014
Post-Cal Level	dB	
Post-Cal Date		
ReCert Date		Unavailable

Configuration Information			
Description	Units	Meter 1	Meter 2
Integration Threshold	dB	OFF	OFF
Exchange Rate	dB	5	5
Criterion Level	dB	90	90
Upper Limit Level	dB	140	140
Projected Time	Hrs	8	8
Weighting		A	A
Time Response		SLOW	SLOW

Measurement	Units	Meter 1	Meter 2	16	31.5	63	125	250	500	1000	2000	4000	8000	16000
		Broadband	Broadband	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz
Lavg	dB	46.9	46.7	9.7	19.3	30.4	35.8	37.4	40.9	41.2	38.2	35.9	36.1	35.4
Lmax	dB	81.8	83.9	26.1	41.6	54.5	67.9	69.9	76.4	76.9	75.2	70.2	60.2	50.7
Lmin	dB	38.3	37.2	8.2	11.2	23.5	27	27.3	30.8	32.1	29.3	32.3	35.3	35.3
Lpk	dB	96.7	96.6	37.7	57.2	67.9	81.1	81.3	88.6	89.7	91.1	85.1	75.1	67.8
TWA	dB	26.9	26.7	-10.2	-0.6	10.4	15.8	17.4	20.9	21.2	18.2	15.9	16.1	15.4
PTWA	dB	46.9	46.7	9.7	19.3	30.4	35.8	37.4	40.9	41.2	38.2	35.9	36.1	35.4
DOSE	%	0.02	0.02	0	0	0	0	0	0.01	0.01	0	0	0	0
PDOSE	%	0.25	0.25	0	0.01	0.03	0.05	0.07	0.11	0.11	0.08	0.06	0.06	0.05
SEL	dB	101	100.7	63.8	73.4	84.5	89.9	91.5	94.9	95.2	92.3	90	90.1	89.5
EXP	p2s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Measurement	Units	Value
LDN	dB	N/A
CNEL	dB	N/A
TAKTMAX (5sec)	dB	N/A
LC-A	dB	N/A

Exceedence	Units	Value
L02	dB	54.2
L10	dB	46.6
L50	dB	40.7
L90	dB	38.5

Receptor 3 (Southeast)
7/23/2014

		Meter 1			Meter 2		
		Count	Percent	Time	Count	Percent	Time
Overload (OL)		0	0	00:00:00	0	0	00:00:00
Under-Range (UR)		23101	20.05	00:06:00	35875	31.14	00:09:20
Upper Limit (UL)		0	0	00:00:00	0	0	00:00:00

Exceedence Table

	0	1	2	3	4	5	6	7	8	9
0	81.8	57.7	54.2	52.9	51.8	50.4	49.4	48.2	47.6	47.1
10	46.6	46.1	45.8	45.5	45.2	44.9	44.6	44.3	44.1	43.8
20	43.5	43.2	43	43	42.8	42.7	42.5	42.4	42.2	42.2
30	42.2	42	41.9	41.8	41.6	41.5	41.4	41.3	41.3	41.3
40	41.2	41.2	41.2	41.2	41.2	41.1	41.1	41	40.9	40.8
50	40.7	40.6	40.5	40.3	40.2	40.2	40.1	40	40	40
60	40	40	40	40	40	40	40	40	40	40
70	40	40	40	40	40	40	39.9	39.9	39.9	39.9
80	39.8	39.8	39.8	39.7	39.6	39.5	39.3	39.1	38.9	38.7
90	38.5	38.3	38.3	38.3	38.3	38.2	38.2	38.2	38.2	38.2

Raw Stat Table

dB	Count
38.3	6020
38.4	4497
38.5	989
38.6	520
38.7	444
38.8	537
38.9	602
39	502
39.1	582
39.2	299
39.3	583
39.4	796
39.5	864
39.6	859
39.7	1111
39.8	1409
39.9	2478
40	4952
40.1	21570
40.2	2101
40.3	1470
40.4	1024
40.5	926
40.6	844
40.7	933
40.8	890
40.9	1027
41	1272
41.1	1454
41.2	2051
41.3	5523
41.4	4571
41.5	964
41.6	815
41.7	801
41.8	740

Statistics Table

	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
38				5.22	3.9	0.85	0.45	0.38	0.46	0.52
39	0.43	0.5	0.25	0.5	0.69	0.75	0.74	0.96	1.22	2.15
40	4.29	18.72	1.82	1.27	0.88	0.8	0.73	0.8	0.77	0.89
41	1.1	1.26	1.78	4.79	3.96	0.83	0.7	0.69	0.64	0.7
42	0.66	0.83	0.59	2.5	0.72	0.57	0.54	0.58	0.77	0.7
43	0.82	1.22	0.53	0.48	0.33	0.27	0.37	0.4	0.36	0.37
44	0.3	0.4	0.35	0.46	0.42	0.27	0.27	0.34	0.4	0.39
45	0.32	0.36	0.31	0.47	0.31	0.21	0.23	0.36	0.23	0.21
46	0.24	0.59	0.26	0.18	0.2	0.2	0.2	0.25	0.21	0.19
47	0.22	0.17	0.15	0.15	0.22	0.19	0.17	0.15	0.21	0.21
48	0.19	0.12	0.12	0.09	0.16	0.22	0.09	0.06	0.05	0.08
49	0.05	0.05	0.05	0.05	0.04	0.07	0.08	0.07	0.07	0.12
50	0.08	0.1	0.17	0.11	0.07	0.08	0.07	0.08	0.07	0.06
51	0.08	0.07	0.04	0.03	0.08	0.06	0.04	0.05	0.08	0.08
52	0.12	0.08	0.07	0.06	0.1	0.05	0.07	0.13	0.1	0.13
53	0.12	0.13	0.13	0.1	0.06	0.07	0.08	0.05	0.03	0.03
54	0.03	0.05	0.07	0.04	0.06	0.03	0.02	0.02	0.02	0.03
55	0.06	0.04	0.01	0.02	0.01	0.02	0.05	0.05	0.04	0.07
56	0.03	0.04	0.06	0.02	0.03	0.03	0.02	0	0	0
57	0.01	0	0	0	0	0	0	0	0	0
58	0	0	0	0	0	0	0	0	0	0
59	0	0	0	0	0	0	0	0	0	0

Receptor 3 (Southeast)
7/23/2014

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 R3 (Southeast)	0:00:10	0:00:10		46.4	73	47.7	44.9	46.2	72.9	51	43.9
	0:00:20	0:00:20		45.2	62.1	46.7	44	45.3	61.9	50.3	43.4
	0:00:30	0:00:30		47.7	76.2	51	45.7	47.6	76.2	58.1	44.6
	0:00:40	0:00:40		46.2	61.1	47.9	44.9	46	61	47.9	44.6
	0:00:50	0:00:50		44.2	58.4	45.8	41.6	44.1	58.3	46.5	40.8
	0:01:00	0:01:00		42.1	64.5	46.4	40.8	41.9	64.5	51.4	40.2
	0:01:10	0:01:10		41.3	56.4	41.7	41	41.3	56.3	43.4	40.4
	0:01:20	0:01:20		41.3	55.2	41.5	41.1	41.2	54.9	42.1	40.3
	0:01:30	0:01:30		41.3	55.5	41.4	40.2	41.1	55.3	42.2	39.5
	0:01:40	0:01:40		40.1	54.6	40.3	39.9	39.9	54.5	41.8	39
	0:01:50	0:01:50		44.1	74	50.8	40	43.2	73.9	57.4	39.4
	0:02:00	0:02:00		43.1	70.1	46.5	41.3	43.1	70.1	51.1	40.9
	0:02:10	0:02:10		46.9	84.9	54.6	42.4	45.9	84.9	62.7	40.9
	0:02:20	0:02:20		43.6	78	48.3	41.3	43.4	78	55.6	40.8
	0:02:30	0:02:30		44.7	78.9	50.4	42.7	44.1	78.9	57.5	40.6
	0:02:40	0:02:40		45.5	79.5	53.1	41.7	44.5	79.5	60.4	41.3
	0:02:50	0:02:50		50.2	67	55	42.7	50.9	67	56.3	42
	0:03:00	0:03:00		48.4	66.3	54.2	42.8	47.8	66.3	55.7	42.1
	0:03:10	0:03:10		51.4	66.4	53.7	47.6	50.8	66.4	54.9	45.2
	0:03:20	0:03:20		43.5	60.7	47.6	41.3	42.9	60.6	47.5	40.9
	0:03:30	0:03:30		41.8	67.8	47.5	41.3	42.4	67.8	52.3	41
	0:03:40	0:03:40		48.7	63.9	50.3	45.8	48.6	63.8	52.4	44.2
	0:03:50	0:03:50		42.8	58.9	45.8	41.3	42.8	58.9	46	41
	0:04:00	0:04:00		43.4	59.5	44.4	42.7	43.4	59.7	47	42
	0:04:10	0:04:10		42.9	60.5	46.1	41.4	43.3	60.7	47.2	41
	0:04:20	0:04:20		46.4	61.5	47.9	45.1	46.3	61.4	49.8	44.2
	0:04:30	0:04:30		44.5	58.1	45.7	42.8	44.5	58.3	47.9	42.2
	0:04:40	0:04:40		42.8	59.2	47.1	41.2	42.3	59.1	50.1	40.5
	0:04:50	0:04:50		41.3	55.1	41.4	40.9	41.1	54.9	42.1	40.3
	0:05:00	0:05:00		42.1	67.6	45.6	41.3	42	67.7	52.1	40.6
	0:05:10	0:05:10		41.3	56.5	41.9	41.2	41.3	56.2	43.5	40.5
	0:05:20	0:05:20		41.4	58.1	42.5	40.8	41.5	58.2	45.4	40.3
	0:05:30	0:05:30		40.4	58.4	41.7	40	40.3	58.3	45.4	39.5
	0:05:40	0:05:40		40.1	53.8	40.1	40	40	53.8	40.9	39.4
	0:05:50	0:05:50		40.5	63.8	44.5	38.3	40.3	63.9	49.8	38.5
	0:06:00	0:06:00		40	62.2	44.1	38.3	40.2	62	50.2	38.5
	0:06:10	0:06:10		39.7	53.8	40.2	39.1	39.7	53.8	41.1	38.7
	0:06:20	0:06:20		38.8	53.2	40	38.3	39.1	53.3	40.8	38.1
	0:06:30	0:06:30		38.6	54.1	39.6	38.3	39.3	54.2	42	38.1
	0:06:40	0:06:40		38.5	52.9	39.4	38.3	39	53	40.9	38.2
	0:06:50	0:06:50		40.2	55.3	41.3	38.4	40.4	54.9	42.6	38.3
	0:07:00	0:07:00		39.5	55.9	40.8	38.3	39.6	55.9	43.6	38.2
	0:07:10	0:07:10		39.6	54	40.2	38.9	39.8	53.8	41.2	38.6
	0:07:20	0:07:20		40.1	54.8	40.3	40	40	54.8	41.5	39.3
	0:07:30	0:07:30		40.6	55	42.6	39.9	40.9	55.1	43.6	39
	0:07:40	0:07:40		42.1	55.6	43	39.3	41.9	55.7	43.7	38.4
	0:07:50	0:07:50		38.9	58	40.4	38.3	39.6	58	42.4	38.1
	0:08:00	0:08:00		40	54.7	40.1	39.8	39.8	54.5	41	39
0:08:10	0:08:10		41	55.7	41.5	40.1	41.3	55.8	42.4	40.2	
0:08:20	0:08:20		41.3	54.2	41.5	41	41.2	54.2	42.4	40.4	
0:08:30	0:08:30		40.7	53.9	41.3	40.1	40.7	54.5	41.5	39.8	
0:08:40	0:08:40		40.1	54.9	40.3	40	40.2	54.8	41.5	39.3	
0:08:50	0:08:50		40.3	55.8	41.8	39.5	40.6	56.1	42.9	38.9	
0:09:00	0:09:00		41.6	55.7	42.3	41.2	41.7	55.5	42.8	40.4	
0:09:10	0:09:10		40.6	59.9	41.5	40.1	40.6	59.8	45.6	39.4	
0:09:20	0:09:20		40.3	57	40.8	40	40.7	57.2	42.9	39.4	
0:09:30	0:09:30		40.6	57.1	44	40	41	57.1	45.7	39.2	
0:09:40	0:09:40		42.9	57.9	44.7	41	42.7	57.6	46.1	39.9	
0:09:50	0:09:50		42.9	60.4	44.9	41.4	43.3	60.1	46.6	41.7	
0:10:00	0:10:00		47.7	64.2	51.7	44.6	48.3	64.3	52.9	43.6	
0:10:10	0:10:10		66.7	88.6	75.3	51.7	68.2	88.6	76.6	52.2	
0:10:20	0:10:20		76.6	96.7	81.8	61.2	75.6	96.6	83.9	53.2	
0:10:30	0:10:30		53.4	80.7	61.2	45.4	49.8	80.6	64.2	43.1	
0:10:40	0:10:40		42.3	69.2	45.4	40	41.7	69.2	49.9	39.1	
0:10:50	0:10:50		40.6	57.9	41.4	40	40.8	57.9	43.2	39.4	
0:11:00	0:11:00		41.5	64	43.2	40.1	41.5	64	47.8	39.6	
0:11:10	0:11:10		48.4	84	59.3	40.8	45.7	84	67	39	
0:11:20	0:11:20		40.4	54.7	41.9	39.9	40.2	54.7	42.5	39	
0:11:30	0:11:30		40.3	55.6	41	39.9	40.5	55.5	43.2	39.1	
0:11:40	0:11:40		41.3	56.4	41.5	40.9	41.3	56.2	42.6	40.3	
0:11:50	0:11:50		43.3	63.5	46.2	41.3	43.4	63.4	49.4	41.2	
0:12:00	0:12:00		42.9	67.3	44.3	42.2	43.2	67.3	46.5	41.7	
0:12:10	0:12:10		42	58.8	43.8	41	41.7	58.6	44.8	40.4	
0:12:20	0:12:20		41.1	54.2	41.5	40.6	41.2	54.5	42.5	40	
0:12:30	0:12:30		42.4	58.8	43.1	41.3	42.7	59.1	44.9	41.1	

Start: 4:28:00 PM
End: 4:58:00 PM

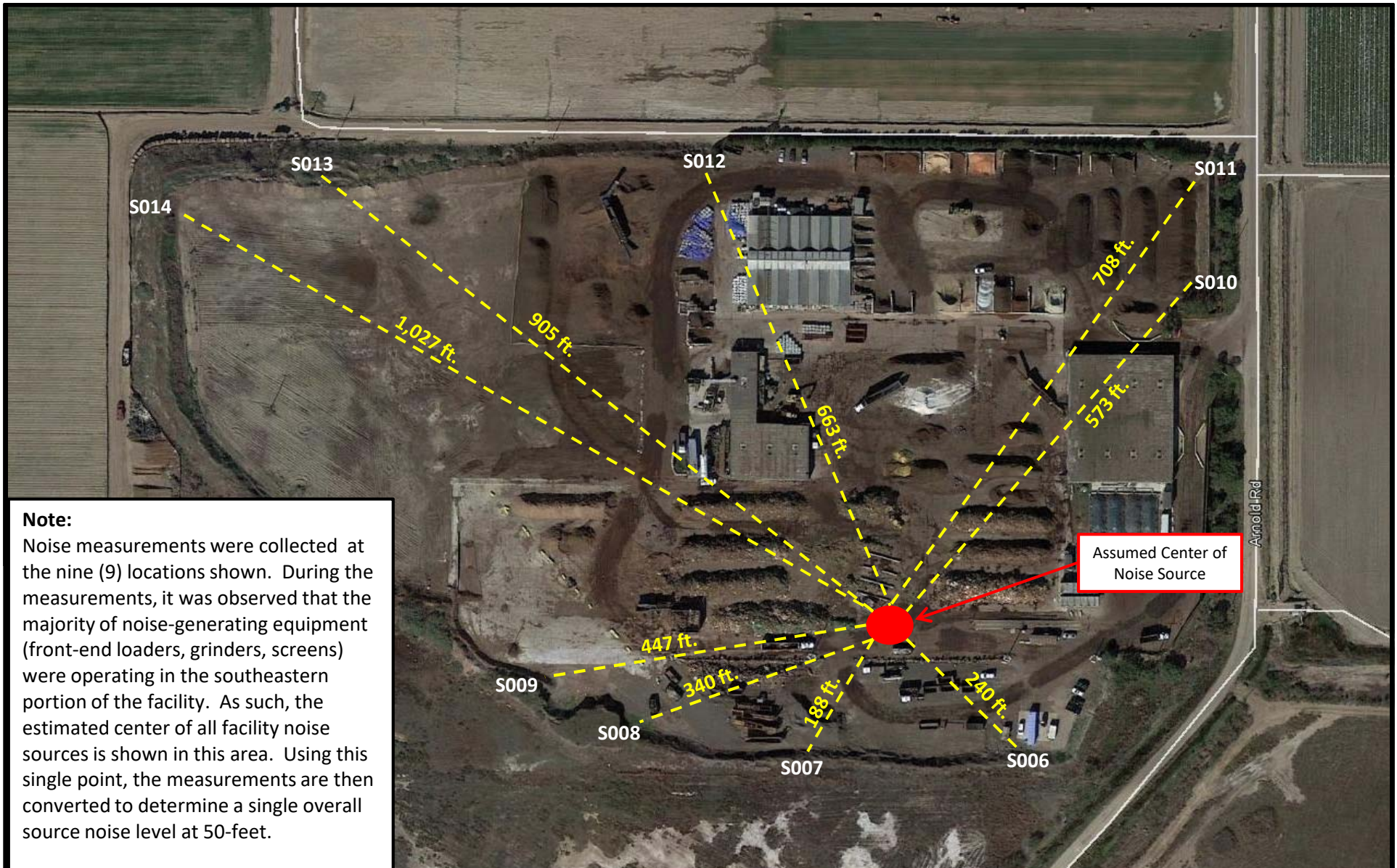
L _{eq}
54.8

0:12:40	0:12:40	43.2	63	44.8	42.2	43.2	63.1	49.3	41.6
0:12:50	0:12:50	42.2	60.1	42.6	41.6	42.1	60.2	43.8	41
0:13:00	0:13:00	40.4	57.1	42	39.9	40	57.1	41.3	39
0:13:10	0:13:10	39.4	55.9	41.8	38.3	40	55.7	43.5	38.5
0:13:20	0:13:20	41.1	62.7	41.8	40.1	41.1	63	42.9	40
0:13:30	0:13:30	41.9	56.8	43.2	40.1	42.5	57.1	44.1	40.6
0:13:40	0:13:40	45.5	64.5	48.1	43.2	45.5	64.3	50.6	43.3
0:13:50	0:13:50	42.7	56.1	43.9	42.2	42.7	56	43.8	41.7
0:14:00	0:14:00	42.6	57.7	43.4	42.2	42.8	57.6	44.4	41.7
0:14:10	0:14:10	44.4	58	46.1	42.3	44.8	58	47	42.1
0:14:20	0:14:20	48.3	62.5	50.8	46.1	48.7	62.5	52.2	46.9
0:14:30	0:14:30	52.7	68.4	54.4	50.7	52.9	68.3	56.5	50.5
0:14:40	0:14:40	55.7	71.6	56.6	54.1	55.8	71.6	58	53.3
0:14:50	0:14:50	52.8	67.4	55.2	50.1	52.3	67.4	55.7	49
0:15:00	0:15:00	48.8	63.6	50.3	47	48.5	63.6	51.2	46.3
0:15:10	0:15:10	47	63.5	48	45.7	46.9	63.5	49	45.2
0:15:20	0:15:20	45.6	65.8	47.4	44.8	45.6	65.8	50.5	44
0:15:30	0:15:30	44.1	61.4	45.4	43	44	61.2	46.2	42.6
0:15:40	0:15:40	42.6	58	43.4	42.3	42.8	58.1	44.1	42
0:15:50	0:15:50	41.6	54.9	42.4	40.8	41.4	54.9	42.8	40.1
0:16:00	0:16:00	40.2	53.1	40.9	40	40.1	53.2	40.7	39.2
0:16:10	0:16:10	40.1	53.8	40.2	40	40.1	54.1	41.4	39.2
0:16:20	0:16:20	40.1	54.5	40.4	39.9	40.5	54.4	41.6	39
0:16:30	0:16:30	41.2	55.5	42.3	40.2	41.3	55.8	44.4	40.5
0:16:40	0:16:40	42	56.8	43.3	40.9	42.1	56.3	45	40.2
0:16:50	0:16:50	42.6	57	44.5	41	43	57	46	40.9
0:17:00	0:17:00	45.3	59.5	47.5	43.5	45.5	59.7	48.6	42.9
0:17:10	0:17:10	48.2	64.6	51.7	44.7	48.6	64.5	53.8	43.8
0:17:20	0:17:20	52.8	67.4	53.6	51.7	52.9	67.4	54.6	50.9
0:17:30	0:17:30	49.5	63.5	52.6	46.2	48.8	63.3	51.2	45.2
0:17:40	0:17:40	45.4	59.1	47.1	43.6	45.3	59.1	47.7	43
0:17:50	0:17:50	43.5	57.5	44.6	42.6	43.6	57.2	46	41.9
0:18:00	0:18:00	42.3	57.2	44.8	40.1	42	57.2	45.6	39.7
0:18:10	0:18:10	40.1	54.1	40.2	40	40.2	54	41.4	39.3
0:18:20	0:18:20	40.9	54.7	41.5	40	41.3	54.9	42.3	39.6
0:18:30	0:18:30	41.5	55.6	42.3	41.3	41.8	55.6	42.8	40.7
0:18:40	0:18:40	42.3	57.4	42.6	42.2	42.5	57.7	43.5	41.8
0:18:50	0:18:50	40.7	54	42.3	40.1	40.7	54.1	42.2	39.6
0:19:00	0:19:00	40.1	54.2	40.8	39.3	40	54.2	42.4	38.4
0:19:10	0:19:10	39.1	53.5	39.9	38.3	39.4	53.3	41	38.5
0:19:20	0:19:20	38.4	52.5	38.6	38.3	39.2	52.3	40.2	38.3
0:19:30	0:19:30	39.6	53.2	40.1	38.3	40	53.2	40.7	39
0:19:40	0:19:40	40.3	54.7	40.7	40.1	40.8	54.5	41.8	40
0:19:50	0:19:50	40.1	54.1	40.1	39.9	40.1	54.2	40.8	39
0:20:00	0:20:00	40.1	53.6	40.1	39.8	39.9	53.3	40.5	39
0:20:10	0:20:10	40.2	53.7	40.6	40.1	40.5	53.6	42	39.7
0:20:20	0:20:20	40.3	54.6	40.7	40.1	40.9	54.6	41.6	40.1
0:20:30	0:20:30	40.2	54.7	40.4	40.1	40.8	54.5	41.6	39.9
0:20:40	0:20:40	39.7	53.2	40.1	38.3	39.5	53	40.4	38.5
0:20:50	0:20:50	38.4	53.7	39.1	38.3	39	53.9	41.6	38.2
0:21:00	0:21:00	39.6	61.2	41.9	38.3	39.9	60.9	46.7	38.2
0:21:10	0:21:10	38.8	53.6	41.2	38.3	39	53.6	43.3	38
0:21:20	0:21:20	39.1	58.7	41.1	38.3	39.5	58.8	45.1	38.3
0:21:30	0:21:30	38.5	52.7	39	38.3	39.3	52.2	40.6	38.5
0:21:40	0:21:40	38.5	53.7	39.7	38.3	39.4	54.1	41	38.5
0:21:50	0:21:50	40.1	53.6	40.2	39.7	39.9	54	41.1	39.1
0:22:00	0:22:00	40.3	54.3	41.4	40	40.3	54.5	43.3	39.2
0:22:10	0:22:10	40.2	54.2	40.5	39.9	40.3	54.2	41.7	39
0:22:20	0:22:20	40.8	55.3	42.8	39.5	40.8	55.3	44.5	38.8
0:22:30	0:22:30	40.2	57.4	41.1	39.7	40.2	57.1	43.5	38.8
0:22:40	0:22:40	39.5	55.4	40.5	38.3	39.7	55.1	42.3	38.5
0:22:50	0:22:50	40.4	56.1	41.3	40	40.7	56.3	44.1	39.6
0:23:00	0:23:00	40.1	54.1	40.4	40	40.4	54.4	41.8	39.5
0:23:10	0:23:10	40	56.9	40.1	39.8	39.7	56.5	40.8	38.8
0:23:20	0:23:20	40.4	60.4	41.9	40	40.4	60.4	44.9	39.1
0:23:30	0:23:30	40.3	59.5	41.7	39.9	40.5	59.5	45.5	38.9
0:23:40	0:23:40	42.2	64.3	46.3	40	42.2	64.4	50.6	39.4
0:23:50	0:23:50	42.6	63	46.4	41.3	42.5	63	51.2	40.7
0:24:00	0:24:00	41.8	60.9	44	41.2	42	61.2	48.8	40.3
0:24:10	0:24:10	41	59.1	43.1	39.9	40.6	58.9	45.2	39
0:24:20	0:24:20	39.6	56.3	40.3	38.3	39.5	56	41.4	38.1
0:24:30	0:24:30	38.6	57.6	39.7	38.3	39.3	57.5	43.9	38.1
0:24:40	0:24:40	38.5	58.6	40.2	38.3	39.2	58.7	44.9	38.5
0:24:50	0:24:50	38.6	56.3	39.7	38.3	39.2	56.4	41.6	38.3
0:25:00	0:25:00	39	60	40.7	38.3	39.6	59.7	44.5	38.4
0:25:10	0:25:10	40.1	53.7	40.1	39.9	39.9	53.6	40.5	39.1
0:25:20	0:25:20	40	54.6	40.1	39.6	39.7	54.5	40.5	39
0:25:30	0:25:30	40	57	40.3	39.7	39.7	56.6	42	38.8
0:25:40	0:25:40	40.1	55.9	40.4	39.8	40.2	55.7	42.1	39

0:25:50	0:25:50	40.2	54	40.4	40.1	40.9	54.2	41.5	40.2
0:26:00	0:26:00	40	52.9	40.1	39.7	39.8	52.9	40.7	39
0:26:10	0:26:10	40.2	60.9	42.5	38.3	40.1	60.9	46.6	38.1
0:26:20	0:26:20	39.5	63.5	44.4	38.3	39.4	63.5	50.5	38
0:26:30	0:26:30	40.1	61.8	44	38.3	40.1	61.9	49.9	38.2
0:26:40	0:26:40	40.1	55.4	40.3	39.8	39.9	55.1	41.5	39
0:26:50	0:26:50	40.1	53.1	40.1	40	40	53.3	40.7	39.4
0:27:00	0:27:00	41.6	66.7	47	40	41.2	66.8	53.9	39.2
0:27:10	0:27:10	40.6	62.3	43.7	39.7	40.3	62.3	48.8	38.6
0:27:20	0:27:20	40.4	61.7	43.4	38.3	40.2	61.5	48.7	37.9
0:27:30	0:27:30	39.7	62.1	43.4	38.3	39.6	62.1	49.2	38
0:27:40	0:27:40	38.3	52.5	38.5	38.3	38.8	52.1	39.8	37.9
0:27:50	0:27:50	38.7	60.4	40.4	38.3	39.3	60.1	45.3	38.3
0:28:00	0:28:00	39.9	60.5	42.7	38.3	39.9	60.2	47.9	37.8
0:28:10	0:28:10	39.5	59.8	41.6	38.3	39.6	59.8	46.5	37.8
0:28:20	0:28:20	38.9	60.9	41.6	38.3	39.2	60.5	46.2	37.9
0:28:30	0:28:30	39.2	60.3	41.6	38.3	39.5	60.2	46.9	37.2
0:28:40	0:28:40	38.5	52.7	39.8	38.3	38.7	52.8	39.9	37.7
0:28:50	0:28:50	39.9	58.1	41.9	38.3	40.4	58.1	45.5	38.5
0:29:00	0:29:00	40.4	56.9	42	40	40.4	56.2	44	38.9
0:29:10	0:29:10	39.9	57.6	41.2	38.3	39.7	57.6	44.5	38.4
0:29:20	0:29:20	39.7	60.5	41.5	38.3	39.9	60.6	45.1	38.2
0:29:30	0:29:30	40.8	57.9	41.4	40	40.9	57.5	44.2	39.3
0:29:40	0:29:40	40.8	60.2	42.8	40	40.9	60.4	47.2	39.3
0:29:50	0:29:50	40.4	56.2	41.5	39.5	40.2	56	43.5	38.4
0:30:00	0:30:00	40.1	61	42.9	39.1	39.8	61.2	48	38.5

APPENDIX D

OXNARD-SHORELINE OPERATIONS NOISE SOURCE CHARACTERIZATION



Note:
 Noise measurements were collected at the nine (9) locations shown. During the measurements, it was observed that the majority of noise-generating equipment (front-end loaders, grinders, screens) were operating in the southeastern portion of the facility. As such, the estimated center of all facility noise sources is shown in this area. Using this single point, the measurements are then converted to determine a single overall source noise level at 50-feet.

Source: Google Earth 2016



SESPE
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FIGURE

OXNARD SOURCE CHARACTERIZATION

Oxnard-Shoreline Organics Operation
 6859 Arnold Road
 Oxnard, California 93033

PROJECT #:	AG01.11.02	DATE:	1/7/17
SCALE:	N/A	DRAWN BY:	GPS

Project Increment Determination (Baseline vs. Project)	
Facility	Total Throughput (tons/year) ^A
Oxnard-Shoreline	55,243
Biogenic Energy Park	295,000
Increment (%)^B	534%

Footnotes:

- A - Oxnard-Shoreline yearly throughput based on actual data gathered during the 2014 operating year. Commercial Organics Processing Operation (i.e. Project) throughput is based on the estimated feedstock processing capacity once the Facility is fully operational.
- B - The increment (%) shown is utilized to scale up the measured Oxnard-Shoreline source noise level (see below) to more accurately reflect the expanded operations at the proposed Facility. This accounts for the increased number of equipment operating to accommodate the expanded open windrow composting operations at the new Facility.
- C - The Oxnard-Shoreline equipment shown was assumed to be operating while source measurements were collected. As similar equipment will be utilized for open windrow composting operations at the proposed Facility, the measured source noise levels (see below) from Oxnard-Shoreline will be utilized to predict certain Facility noise impacts (i.e. open windrow composting) within the SoundPLAN model.

Oxnard-Shoreline Processes & Equipment Operating ^C		
Process	Location	Equipment Operating
Feedstock Receiving	Outdoors	Front-End Loader
Chipping/Grinding	Outdoors	Front-End Loader
		Grinder
		Screen
Windrow Composting	Outdoors	Pile Turner
		Front-End Loader
		Front-End Loader
		Front-End Loader
		Water Truck
CASP	Outdoors	Screen
		Front-End Loader
Bagging Operations	Indoors	Screen
		Forklift
		Front-End Loader

Oxnard-Shoreline Facility Source Noise Measurements & Calculations						
Measurement #	Measured		Converted		Arithmetic SPL (10 ^(L_{avg}/10))	
	Measured L _{avg}	Distance (ft.)	Distance (ft.)	L _{avg} @ 50-feet		
S006	64.9	240	50	78.5	71,200,407	
S007	66.6	188	50	78.1	64,621,300	
S008	64.4	340	50	81.1	127,355,535	
S009	67.2	447	50	86.2	419,445,015	
S010	64.9	573	50	86.1	405,853,444	
S011	54.3	708	50	77.3	53,966,780	
S012	55.6	663	50	78.1	63,839,143	
S013	52.0	905	50	77.2	51,922,686	
S014	52.5	1,027	50	78.8	75,024,115	
Average:					148,136,492	
Oxnard-Shoreline L_{avg} @ 50-feet:					81.7	dBA
Expected Project L_{avg} @ 50-feet:					89.0	dBA

Note: Noise measurements were collected at nine (9) locations surrounding the Oxnard-Shoreline facility (see attached meter output files). Measurements were collected while the site was fully operational and within line-of-sight of noise sources (on/off-road equipment, portable equipment, compost pile turner, etc.). Based on the observed location of equipment operating during the measurements, an assumed center point was chosen (see previous Figure) and noise measurements combined to determine a total source noise level at 50-feet (i.e. 81.7 dBA). This combined source noise level is then scaled up based on the Project increment shown above (534%) to more accurately reflect expanded operations at the new Facility. The adjusted noise level shown is utilized within the SoundPLAN Essential model to represent "open windrow composting" operations.

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 (S006)	0:00:10	0:00:10		59.9	86.1	61.1	58.5	59.8	86.1	62.6	57.8
	0:00:20	0:00:20		59.6	72.8	60.5	58.5	59.5	72.8	61	57.4
	0:00:30	0:00:30		60.1	95.4	64.1	58.5	59.9	95.4	70.6	57.8
	0:00:40	0:00:40		78.4	110.4	89.5	58.7	75.1	110.3	94.2	57.8
	0:00:50	0:00:50		66.2	81.4	69.1	62.6	66.4	81.3	70.1	62.4
	0:01:00	0:01:00		64.4	79.8	66.9	61.5	63.9	79.7	67.6	60.1
	0:01:10	0:01:10		61.9	77.3	63.5	60.1	61.9	77.2	65.4	58.8
	0:01:20	0:01:20		75.3	105.8	85.9	62.3	72.8	105.8	90.6	58.2
	0:01:30	0:01:30		60.9	74	66.4	58.9	59.7	73.9	62	57.8
	0:01:40	0:01:40		75.6	105.6	86.2	60.2	73.5	105.6	90.6	59.6
	0:01:50	0:01:50		64.9	103.1	80.6	61.2	65.3	103.1	87.1	60.1
	0:02:00	0:02:00		77.1	107.2	87.9	62.1	73.7	107.1	91.3	60.4
	0:02:10	0:02:10		61.6	76.2	63.6	60.4	61.6	76.1	64.7	59.4
	0:02:20	0:02:20		63	80	64.8	62.4	63	80	67.1	61
	0:02:30	0:02:30		63.3	77.3	64.5	62.2	63	77.3	65	60.2
	0:02:40	0:02:40		62.5	76.9	63.3	61	62.3	76.8	64	60.2
	0:02:50	0:02:50		61.1	75	62.8	60.1	61.2	74.9	63.7	59.2
	0:03:00	0:03:00		63	77.9	64.4	62.3	62.9	77.8	65.6	60.9
	0:03:10	0:03:10		61.2	79.3	62.6	60	60.9	79.2	64.2	58.7
	0:03:20	0:03:20		61.4	76.6	62.6	60	61.4	76.6	63.4	59.6
	0:03:30	0:03:30		63.8	77.9	65.6	60.5	63.8	77.9	66.5	60.4
	0:03:40	0:03:40		61.3	76.3	62.7	60	61.2	76.3	64	58.1
	0:03:50	0:03:50		63.1	78.3	65.8	60.6	63.1	78.3	67	59.9
	0:04:00	0:04:00		61.7	75.7	63.1	59.5	61.5	75.6	63.8	58.3
	0:04:10	0:04:10		60.9	79.3	62.4	59.5	60.8	79.2	63.4	58.6
	0:04:20	0:04:20		62.1	78.1	62.9	60.4	62	78.1	65.7	58.9
	0:04:30	0:04:30		60.6	74.3	62.4	59.4	60.3	74.2	62.9	58.5
	0:04:40	0:04:40		60.4	77.7	61.2	59.6	60.4	77.7	63.9	58.8
	0:04:50	0:04:50		59.7	73.9	61.3	58.5	59.6	73.8	62.7	57.7
	0:05:00	0:05:00		60.3	97.7	73.5	58.8	61.4	97.7	79.8	58
0:05:10	0:05:10		66.1	92.5	75.9	59.4	63.6	92.5	80.4	58.3	
0:05:20	0:05:20		68	100.9	78.2	58	66	100.8	83.2	57	
0:05:30	0:05:30		59.7	72.4	61.8	58.8	59.4	72.3	60.7	58.1	
0:05:40	0:05:40		67.9	97	78	59.6	66.3	97	82.2	58.6	
0:05:50	0:05:50		60.6	75	65.8	58.3	59.4	75	62.4	57.4	
0:06:00	0:06:00		60.1	73.9	61.5	57.9	60.3	73.9	62.6	57.1	
0:06:10	0:06:10		60.4	74.4	61.6	58.4	60.1	74.3	62.1	57.7	
0:06:20	0:06:20		60	74.3	61.4	58.9	60	74.3	62.9	58.6	
0:06:30	0:06:30		59.2	72.4	60	58	59	72.3	60.6	57.5	
0:06:40	0:06:40		58.9	73.8	60.8	57.9	59.1	73.7	61.6	57.2	
0:06:50	0:06:50		59.8	74.3	60.5	59.2	59.6	74.2	60.9	58	
0:07:00	0:07:00		60.7	78.2	62.2	59.7	60.7	78.2	64.7	58.6	
0:07:10	0:07:10		67.9	97.9	77.5	60.4	66.2	97.9	82.4	59.5	
0:07:20	0:07:20		59.7	73.6	60.3	59	59.6	73.6	61.2	58.1	
0:07:30	0:07:30		60.3	74.1	61.2	59.4	60.3	74.1	62.5	58.5	
0:07:40	0:07:40		60.6	83.3	63.3	59.5	60.4	83.3	66.9	58.7	
0:07:50	0:07:50		60.2	73	60.7	59.7	60.2	73	61.6	59.1	
0:08:00	0:08:00		60.6	73.7	61.1	60.1	60.5	73.7	62	59	
0:08:10	0:08:10		61	78.7	62.7	60.1	61.2	78.7	63.8	59.4	
0:08:20	0:08:20		62.5	88.5	65.5	60.7	62.1	88.4	71.7	59.5	
0:08:30	0:08:30		61.4	77.4	63	60.4	61.5	77.4	64.2	59.2	
0:08:40	0:08:40		61.8	77	62.9	60.2	61.6	77	63.4	59.5	
0:08:50	0:08:50		60.9	75.8	61.9	59.5	60.8	75.7	62.6	58.3	
0:09:00	0:09:00		60.7	76.9	62.8	59.3	60.6	76.9	64.6	58.4	
0:09:10	0:09:10		61.1	75.9	62.8	59.2	61.2	75.8	63.6	58.6	
0:09:20	0:09:20		63.4	81.1	66.7	61.2	63.6	81.1	68.9	60.5	
0:09:30	0:09:30		62.3	75.8	65.2	61	61.9	75.8	64.3	60.1	
0:09:40	0:09:40		61.3	75.3	62.1	60.2	61.1	75.3	63.3	59.3	
0:09:50	0:09:50		59.9	73.8	61.4	58.9	59.8	73.8	62.6	58	
0:10:00	0:10:00		68.9	97.9	78.9	59.9	67	97.8	83.7	59.2	

L _{avg}
64.9

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 (S007)	0:00:10	0:00:10		64.4	80.3	66.6	62.8	64.2	80.3	67.6	60.2
	0:00:20	0:00:20		63	77.3	64	62.1	62.9	77.2	64.6	60.6
	0:00:30	0:00:30		66.6	89.3	71.5	63.1	66.2	89.3	76.1	60.7
	0:00:40	0:00:40		65.2	80.8	66.9	63.8	65.2	80.8	68.4	61.1
	0:00:50	0:00:50		65.6	81	67.7	63	65.6	81	68.9	61.4
	0:01:00	0:01:00		63.9	78.1	66.5	62.2	63.5	78.1	67	59.7
	0:01:10	0:01:10		65.9	82	68	63.2	65.9	82	69.3	62.8
	0:01:20	0:01:20		66.2	81.5	68.1	63.8	66.1	81.5	69.6	61.8
	0:01:30	0:01:30		64.2	78.9	65.4	62.6	63.9	78.9	66.5	60.9
	0:01:40	0:01:40		64.8	85.8	67	62.4	64.9	85.8	69.5	61.4
	0:01:50	0:01:50		65.5	81.5	67.1	63	65.3	81.5	69.1	61.6
	0:02:00	0:02:00		66	81.9	67.8	63.8	66	81.9	68.6	62.5
	0:02:10	0:02:10		65.9	82.3	67.7	64.3	65.8	82.2	69.8	63
	0:02:20	0:02:20		64.5	79.4	65.9	63.1	64.2	79.3	66.9	61.6
	0:02:30	0:02:30		66.1	83.3	68.5	63.6	66.1	83.3	70.9	62.1
	0:02:40	0:02:40		66.9	83.1	68.5	65.6	66.8	83	70.4	63.8
	0:02:50	0:02:50		64.3	79	65.8	63.1	63.9	79	67	61.7
	0:03:00	0:03:00		67.8	93.7	75	63.8	67	93.7	79.7	62.5
	0:03:10	0:03:10		64.6	82.9	66.6	62.6	64.4	82.9	67.7	60.5
	0:03:20	0:03:20		66.7	93.1	73.3	62.5	66.2	93	79.2	61.1
	0:03:30	0:03:30		66	82.1	68.3	64.2	65.9	82	69.9	62.4
	0:03:40	0:03:40		64.2	83.7	65.7	62.4	63.9	83.7	67.7	60.5
	0:03:50	0:03:50		62.3	77.7	63.9	60.1	62.1	77.7	65.3	58.1
	0:04:00	0:04:00		63	80.5	64.5	60.5	62.9	80.5	66.9	58.4
	0:04:10	0:04:10		64.9	81	67.9	63.2	64.9	81	69.6	59.9
	0:04:20	0:04:20		65.2	79.4	66.2	62.5	65	79.3	67.3	59.2
	0:04:30	0:04:30		63.8	77.7	64.9	61.8	63.6	77.7	65.7	60.9
	0:04:40	0:04:40		63.5	79.1	65	62.1	63.4	79.1	67.1	60.7
	0:04:50	0:04:50		65.1	82.2	66.2	63.9	65.1	82.1	67.9	62.1
	0:05:00	0:05:00		65.4	81.8	67.6	63.5	65.4	81.8	69.6	61.6
0:05:10	0:05:10		66.4	85.9	68	64.7	66.2	85.8	69.4	62.8	
0:05:20	0:05:20		71.9	109.4	82.5	64	69.7	109.4	90.1	61.7	
0:05:30	0:05:30		65.9	80.7	67.7	64.1	65.7	80.7	69	62.7	
0:05:40	0:05:40		66	84.6	68	64	65.8	84.6	70.1	61.9	
0:05:50	0:05:50		65.8	83	68	62.9	65.6	83	69.2	61	
0:06:00	0:06:00		65	82	66.9	62.7	64.9	82	69.2	61.2	
0:06:10	0:06:10		63.7	78.7	65.4	61.2	63.4	78.7	67.3	59.4	
0:06:20	0:06:20		60.2	75.3	61.8	58.8	60	75.2	63.7	57.4	
0:06:30	0:06:30		71.7	105.2	82.8	60.2	68.9	105.1	89	58.3	
0:06:40	0:06:40		63.5	102.5	77.1	59.3	64.4	102.4	84.3	57.4	
0:06:50	0:06:50		72.3	108.8	82.6	63	69.8	108.7	88	61.2	
0:07:00	0:07:00		72.7	104.2	82.8	62.9	70.7	104.2	88	60.8	
0:07:10	0:07:10		63.5	82.2	64.4	61.6	63.3	82.2	65.9	60.6	
0:07:20	0:07:20		67.2	88.2	69.9	61.8	67.3	88.2	71.5	61.4	
0:07:30	0:07:30		68.4	89.6	71.6	65.1	68.1	89.5	75.2	62	
0:07:40	0:07:40		67.2	84	69.1	65.2	67.1	84	71.3	63.6	
0:07:50	0:07:50		77	108.3	88.5	62.9	74.4	108.3	94.4	60.7	
0:08:00	0:08:00		66.6	84.8	73.1	62.5	65	84.7	70.7	60.5	
0:08:10	0:08:10		64.6	80.7	67	62.1	64.6	80.7	68.7	59.6	
0:08:20	0:08:20		64.9	80.6	67	62.4	64.6	80.6	68.1	60.6	
0:08:30	0:08:30		64	81	66	61.3	64	80.9	68.2	60	
0:08:40	0:08:40		65.4	83.9	68.3	62.9	65.3	83.9	71.9	59.5	
0:08:50	0:08:50		65.9	81.2	67.3	64.4	65.7	81.2	68.2	62.9	
0:09:00	0:09:00		65.5	82.5	66.6	64	65.6	82.5	67.8	62.6	
0:09:10	0:09:10		67.9	94	76	63.8	67.8	94	80.3	61.7	
0:09:20	0:09:20		66.6	87.1	71.9	64.3	65.4	87.1	73.3	63	
0:09:30	0:09:30		66.5	85.4	68.7	63.5	66.1	85.4	71.6	62.2	
0:09:40	0:09:40		65.4	80.9	67.6	62.6	65.1	80.9	69	60.1	
0:09:50	0:09:50		66.7	92.3	70	62.8	67.2	92.2	72.3	62.1	
0:10:00	0:10:00		68.3	85	70.1	66.7	68	84.9	71.3	63.8	

L _{avg}
66.6

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 (S008)	0:00:10	0:00:10		64.8	84.3	66.5	62.6	64.4	84.3	70.3	60.7
	0:00:20	0:00:20		60.1	79.1	63.8	59	59.5	79.1	63.5	57.6
	0:00:30	0:00:30		61.9	84.8	64	60	62.1	84.8	66.2	58.2
	0:00:40	0:00:40		65.7	86.5	69.9	61.2	65.6	86.5	72.3	59.1
	0:00:50	0:00:50		68.8	87.8	71.5	65.8	69	87.7	74.3	64.5
	0:01:00	0:01:00		70	87.2	72.1	68.3	69.6	87.2	73.5	64
	0:01:10	0:01:10		67.1	85	69.6	63	66.8	84.9	73.1	62
	0:01:20	0:01:20		69.5	89.6	72.9	66.9	69.2	89.5	75.1	63.8
	0:01:30	0:01:30		65.4	90	69.4	61.9	64.9	90	73.8	60.7
	0:01:40	0:01:40		69.6	90.4	72.9	65.1	69.6	90.3	76.3	64
	0:01:50	0:01:50		70	97.3	74.8	68	69.5	97.3	80	63
	0:02:00	0:02:00		66.2	83.5	68.4	64.7	65.7	83.5	68.9	62.3
	0:02:10	0:02:10		64.6	85.3	66.3	63.5	64.6	85.2	70	60.8
	0:02:20	0:02:20		68.3	98.5	72.4	66	68.1	98.5	75.6	63.5
	0:02:30	0:02:30		66.7	86.3	68.1	64.6	66.3	86.2	72	62.4
	0:02:40	0:02:40		66.6	88	69.1	65	66.5	88	73.3	63.2
	0:02:50	0:02:50		62.4	77.3	66.5	60.6	61.9	77.3	67.4	59.1
	0:03:00	0:03:00		63.8	78.2	65	61.7	63.6	78.2	65.7	59.7
	0:03:10	0:03:10		61.2	77.4	62.8	59.9	61.1	77.4	63.8	58.6
	0:03:20	0:03:20		64.9	81.1	66.9	61	64.9	81.1	69.2	60.8
	0:03:30	0:03:30		62.4	79.1	63.7	61.6	62.2	79.1	64.8	60.1
	0:03:40	0:03:40		64.7	81	66.8	62.6	64.7	81	68.3	61.8
	0:03:50	0:03:50		63.3	80.4	64.7	61.5	62.9	80.3	66.2	60
	0:04:00	0:04:00		62.1	78.9	64.7	60.4	62.1	78.9	66.5	58.9
	0:04:10	0:04:10		61.5	79.2	62.6	60.7	61.3	79.2	64.3	59.6
	0:04:20	0:04:20		60.7	77	61.9	59.8	60.7	77	63.1	58.1
	0:04:30	0:04:30		64.1	84.2	66	61.4	64.1	84.2	68.2	61.1
	0:04:40	0:04:40		63.4	79.6	65.8	61.6	63.4	79.5	67	60.1
	0:04:50	0:04:50		61.1	78.2	63.8	58.8	60.5	78.2	64.6	57.6
	0:05:00	0:05:00		60.8	82	62.5	59.2	60.8	81.9	65.8	58.2
	0:05:10	0:05:10		60.7	77	61.4	59.2	60.7	77	62.2	56.8
	0:05:20	0:05:20		62	76.8	63.1	60	62	76.8	64.1	58.1
	0:05:30	0:05:30		65.8	100.7	78.8	61.4	67.1	100.7	85.7	60.4
	0:05:40	0:05:40		67.8	82.2	76.8	62.8	64.4	82.2	70.1	61.3
	0:05:50	0:05:50		63.5	81.7	66.6	61.3	63.4	81.6	68.5	60.1
	0:06:00	0:06:00		61.8	79.1	64.2	59.9	61.8	79	66.7	58.6
	0:06:10	0:06:10		63.8	80.8	65	62.9	63.7	80.8	65.9	61.5
	0:06:20	0:06:20		64.7	79.4	65.8	62.7	64.5	79.4	67.7	61.8
	0:06:30	0:06:30		65	87.8	69.4	62.9	64.7	87.8	73.1	59.7
	0:06:40	0:06:40		63.6	79.1	65	61.8	63.4	79	66.5	59.9
0:06:50	0:06:50		62.9	81	64.5	61.2	62.8	81	68.1	59.8	
0:07:00	0:07:00		65.2	92.7	73.6	59.4	64	92.7	78.5	56.9	
0:07:10	0:07:10		64.4	88.1	68	60.7	64.1	88	70.9	58.7	
0:07:20	0:07:20		61.6	81.1	62.5	60.6	61.6	81	64.1	59.1	
0:07:30	0:07:30		61.9	76.4	63.1	60.4	61.7	76.3	64.1	59.4	
0:07:40	0:07:40		62.6	100.3	77.5	60	64.3	100.3	82.9	58.9	
0:07:50	0:07:50		67.7	87.5	77.5	61.2	64.5	87.3	82.4	58.4	
0:08:00	0:08:00		60.6	77	61.8	59.3	60.3	77	63.2	57.9	
0:08:10	0:08:10		60.3	78.9	62.3	58.9	60.3	78.9	63.9	57.9	
0:08:20	0:08:20		62.5	81.1	64.1	60	62.4	81	66.4	58.6	
0:08:30	0:08:30		62.2	80.6	64.6	60.4	62.3	80.5	67	58.7	
0:08:40	0:08:40		62.7	80.9	64.4	61.3	62.5	80.9	67.2	59.4	
0:08:50	0:08:50		62.5	85.5	64.7	61.1	62.5	85.5	67.9	59.7	
0:09:00	0:09:00		60.9	78.9	64	58.4	60.2	78.9	64.5	57.8	
0:09:10	0:09:10		61	90.7	68.3	57.5	60.1	90.6	75	55.9	
0:09:20	0:09:20		58.9	75.3	59.8	58.1	58.9	75.3	60.7	57.1	
0:09:30	0:09:30		61.2	75.8	63.1	58.8	61.3	75.8	64.1	57.8	
0:09:40	0:09:40		60.8	77.2	63.7	59.5	60.9	77.2	65.9	58.6	
0:09:50	0:09:50		64.6	83.7	67.1	61.4	64.8	83.7	68.6	59.5	
0:10:00	0:10:00		64.2	85.2	66.8	60.5	63.5	85.1	70.2	58.9	

L _{avg}
64.4

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 (S009)	0:00:10	0:00:10		67.9	87.5	69.7	65.6	67.5	87.5	71.4	63.4
	0:00:20	0:00:20		66.2	82.9	68.5	63.9	66	82.9	70.8	63
	0:00:30	0:00:30		65.8	82.8	67.5	62.8	65.6	82.8	68.6	61.7
	0:00:40	0:00:40		66.3	83.1	67.4	63	66.5	83.1	68.9	63.1
	0:00:50	0:00:50		67.8	85.4	69.5	65.8	67.7	85.4	71	63.6
	0:01:00	0:01:00		68.7	86.9	69.9	67.2	68.8	86.8	71.4	66.8
	0:01:10	0:01:10		66.3	85	68.9	64.3	65.7	84.9	70.1	62.8
	0:01:20	0:01:20		64.6	86.1	66.3	62.7	64.4	86.1	69.5	60.9
	0:01:30	0:01:30		64.4	83.2	66.2	62	64.2	83.1	68.6	59.7
	0:01:40	0:01:40		65	84.7	66.2	63.9	64.9	84.6	68.6	60.4
	0:01:50	0:01:50		63.9	79.4	65.9	62.7	63.6	79.4	67	61.1
	0:02:00	0:02:00		66.2	82.4	68	64.2	66.1	82.3	69.8	63.1
	0:02:10	0:02:10		64.2	81.1	66	62.4	64	81.1	67.6	61
	0:02:20	0:02:20		64.3	82	65.5	62	64.3	81.9	67.2	60.7
	0:02:30	0:02:30		63.9	86.7	65.8	62.4	63.7	86.6	67.7	59.7
	0:02:40	0:02:40		69	86.1	71	63.8	69.4	86.1	72.4	63.5
	0:02:50	0:02:50		70.5	101.4	74	65.7	69.7	101.3	81.1	63.5
	0:03:00	0:03:00		66.2	84	67.7	63.8	65.9	83.9	68.7	61.8
	0:03:10	0:03:10		66.6	93.8	74.9	61.7	65.4	93.7	79.2	58.9
	0:03:20	0:03:20		60	76.7	64	58.2	59.3	76.6	64.6	57
	0:03:30	0:03:30		60.8	88.7	63.4	58.3	61	88.7	64.9	56.8
	0:03:40	0:03:40		67.5	95.1	74	62.7	66.8	95	78.3	60.6
	0:03:50	0:03:50		69.4	94.2	75.4	66.1	68.9	94.2	81.5	64.4
	0:04:00	0:04:00		68.7	89.5	72.3	65.4	68.4	89.5	74.5	62.1
	0:04:10	0:04:10		68.3	95.5	75.8	64.7	67.4	95.5	80.9	61.4
	0:04:20	0:04:20		68.2	88.7	71.7	65	68.7	88.6	74.4	63.7
	0:04:30	0:04:30		71.6	89.8	73.8	68.3	71.3	89.7	75.8	66.5
	0:04:40	0:04:40		65.4	82.8	68.3	62.7	64.7	82.7	69	61.2
	0:04:50	0:04:50		61.3	80	63.2	59	61	79.9	65.3	57.6
	0:05:00	0:05:00		60.3	76.4	61.9	59.1	60	76.4	63.4	58.1
0:05:10	0:05:10		76.6	110.3	86.5	59.7	73.8	110.3	91.2	59	
0:05:20	0:05:20		76.2	110	87.2	62.4	74.7	110	91.2	60.2	
0:05:30	0:05:30		67.9	80.6	78	61.1	63.4	80.6	67.9	59.5	
0:05:40	0:05:40		63.6	85.1	65.4	62.2	63.5	85	67.3	60.3	
0:05:50	0:05:50		63.4	87.5	67	60.6	63.1	87.5	69.2	59.1	
0:06:00	0:06:00		63.2	82.2	64.8	61.8	63.3	82.1	66.7	60.7	
0:06:10	0:06:10		62.5	86.2	65.1	59.9	62.3	86.1	70.4	59	
0:06:20	0:06:20		74.4	106.3	83.8	63.9	72.3	106.2	88.3	61.4	
0:06:30	0:06:30		65.2	84	66.5	63.7	65.2	84	68.3	62.3	
0:06:40	0:06:40		67.8	89.3	71	64.3	67.7	89.3	74	60.9	
0:06:50	0:06:50		68.2	92.6	73	64.2	68.1	92.5	76.1	61.6	
0:07:00	0:07:00		66.4	84.8	68.6	65	66.2	84.8	71.4	62	
0:07:10	0:07:10		68.4	94.6	76	62.6	68.2	94.5	80.7	60.5	
0:07:20	0:07:20		66.2	82.9	72.6	62.9	64.3	82.9	68.3	60.1	
0:07:30	0:07:30		66.7	89.8	70.7	62.6	67.1	89.8	74.7	61.5	
0:07:40	0:07:40		73.3	98.4	78.6	69.7	73.9	98.3	81.5	67.3	
0:07:50	0:07:50		70.7	90.3	77.4	66.6	68.8	90.2	76.5	64.5	
0:08:00	0:08:00		71	94.8	77.7	65.3	70	94.7	82.1	62.5	
0:08:10	0:08:10		66.7	85.2	69.4	64.3	66.6	85.2	71.7	62.2	
0:08:20	0:08:20		63.9	82.8	66.8	61.7	63.3	82.8	66.8	59.1	
0:08:30	0:08:30		63.8	86.2	66.8	61.2	63.8	86.2	68.4	59.3	
0:08:40	0:08:40		63.8	86.5	66.3	61.3	63.7	86.4	70.6	59	
0:08:50	0:08:50		63.5	79.8	65.7	61.4	63.3	79.8	67.5	60.5	
0:09:00	0:09:00		64.6	82.1	66.6	62.6	64.5	82	69.1	60.1	
0:09:10	0:09:10		67.5	88.7	70.5	64.5	67.2	88.7	73.5	61	
0:09:20	0:09:20		62.7	82.8	67.8	57.2	61.8	82.8	70.7	55.8	
0:09:30	0:09:30		57.3	78	64.3	54	57.7	77.9	68.5	51.9	
0:09:40	0:09:40		58.1	79.4	64	55.2	56.7	79.3	64.3	52.5	
0:09:50	0:09:50		56.4	71.8	57.2	55.7	56.4	71.8	59.3	54	
0:10:00	0:10:00		56.5	70.7	57.6	55.1	56.4	70.7	58.5	53.7	

L _{avg}
67.2

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 (S010)	0:00:10	0:00:10		66.9	83.8	69.5	64.5	67	83.8	71.2	63.4
	0:00:20	0:00:20		71.5	90.2	75.9	61.9	70.9	90.2	77.6	59.6
	0:00:30	0:00:30		61	77	62.6	57.6	60.6	77	63.4	56.1
	0:00:40	0:00:40		56.7	80	59.3	54.8	56.3	80	65.4	52.1
	0:00:50	0:00:50		54.2	72	56	52.1	54	72	57.7	50.1
	0:01:00	0:01:00		51.8	66.4	54.9	49.8	51.5	66.4	57.2	49
	0:01:10	0:01:10		60.3	87.2	68.8	52	58.5	87.1	72.9	50.1
	0:01:20	0:01:20		53.4	67.9	54.5	51.5	53.2	67.8	55.5	49.1
	0:01:30	0:01:30		58	71.2	61.4	49.6	57.9	71.2	64.2	48.2
	0:01:40	0:01:40		62.6	94.1	73.8	49.2	58.9	94.1	80.5	47.3
	0:01:50	0:01:50		62.4	97.1	74.7	48.9	60.3	97	81.8	48.1
	0:02:00	0:02:00		55.8	69.5	63.7	50.9	53.3	69.5	57.5	49.4
	0:02:10	0:02:10		62.8	92.6	74	52.3	60.6	92.5	80	50.3
	0:02:20	0:02:20		65.1	91.8	74.8	55.1	62.8	91.8	79.8	53
	0:02:30	0:02:30		65.1	94.3	75.4	55.9	62.8	94.3	81.2	53.1
	0:02:40	0:02:40		65.3	95.8	77.4	55.6	64	95.7	83.2	54.1
	0:02:50	0:02:50		60.9	74.2	69.9	54.7	57.8	74.2	66.8	53.2
	0:03:00	0:03:00		60	81.8	64.2	54.6	59.2	81.7	66.4	52.6
	0:03:10	0:03:10		56.9	72.5	58.6	54.4	56.6	72.5	59.7	53.3
	0:03:20	0:03:20		55.8	74	58.5	54.1	55.6	73.9	62	53.1
	0:03:30	0:03:30		55.8	71.9	59.3	52.6	55.4	71.8	61	51.3
	0:03:40	0:03:40		64	86	71.3	51.9	63.6	85.9	73.5	50.9
	0:03:50	0:03:50		71.8	104.9	84	52.4	69.4	104.9	89.5	51.4
	0:04:00	0:04:00		62.1	70.3	73.5	53.2	54.3	70.2	58.3	51.8
	0:04:10	0:04:10		77.2	108.8	88.4	55	73.9	108.7	93.2	52.7
	0:04:20	0:04:20		72.9	107.1	86.2	55	72.7	107	90.5	53.4
	0:04:30	0:04:30		69.1	73.4	81.4	54.1	57.4	73.3	65.6	51.7
	0:04:40	0:04:40		67.6	112.9	90.9	53.2	72.6	112.8	96.2	52.2
	0:04:50	0:04:50		79.5	109.8	91.8	54.2	71.9	109.7	96.9	50.6
	0:05:00	0:05:00		77.7	107.8	89.6	53.1	75.2	107.8	93	51.3
0:05:10	0:05:10		65.6	71.9	77.4	55.2	56.2	71.9	60.1	52.9	
0:05:20	0:05:20		57.8	74.4	59.6	55.1	57.8	74.5	61.7	54.1	
0:05:30	0:05:30		63	89.4	71.8	57.1	64.3	89.3	75	56.4	
0:05:40	0:05:40		70.1	88.8	72.2	62.3	69.3	88.7	74.5	56.6	
0:05:50	0:05:50		58.8	73.6	63.5	54.2	57.9	73.6	65.6	52.4	
0:06:00	0:06:00		68.2	100	82.8	53.7	69.3	100	87.1	51.4	
0:06:10	0:06:10		67.6	72.4	79.7	54.6	57.3	72.4	65	51.6	
0:06:20	0:06:20		56	70.9	57.6	52	55.6	70.9	59.7	50.9	
0:06:30	0:06:30		53.4	70.2	57.5	51.4	53.8	70.1	60.2	50.3	
0:06:40	0:06:40		56.7	70.3	58	55	56.4	70.2	59.9	53.1	
0:06:50	0:06:50		56.4	68.8	58	52.9	56.4	68.8	59.2	51.5	
0:07:00	0:07:00		53	70.8	56.7	51.1	52.5	70.8	57.9	50.2	
0:07:10	0:07:10		66.6	99.2	77.2	53.1	64	99.2	81.5	51.2	
0:07:20	0:07:20		56.1	70.6	57.8	54.9	56.1	70.5	59.1	54	
0:07:30	0:07:30		56.5	72.7	58.5	54.7	56.3	72.7	59.7	53.1	
0:07:40	0:07:40		54.8	71.3	57.1	53.2	55	71.3	58	52	
0:07:50	0:07:50		62.9	97	76.7	53	63.9	97	80.6	51.9	
0:08:00	0:08:00		62.6	73.5	73.9	52.8	55.3	73.5	61.8	51.2	
0:08:10	0:08:10		54.6	69.8	57.6	51.9	54.5	69.9	58.9	50.7	
0:08:20	0:08:20		53.2	69	55.2	51.8	53.3	69	56.5	51.2	
0:08:30	0:08:30		52.3	66.8	54.6	50.8	52	66.8	54.4	49.6	
0:08:40	0:08:40		53.5	71.9	54.5	51.3	53.5	71.9	55.8	49.9	
0:08:50	0:08:50		60.5	80	65.6	52.8	61.3	80	66.7	52.3	
0:09:00	0:09:00		68.2	100.2	78.2	53.4	65.7	100.2	83.2	52	
0:09:10	0:09:10		52.9	69.2	55.2	51.2	52.7	69.2	56.6	49.9	
0:09:20	0:09:20		53	68	54.8	51.6	52.9	68.1	56.2	50.8	
0:09:30	0:09:30		51.3	67.8	52.3	49.8	51.2	67.7	54.3	48.7	
0:09:40	0:09:40		52	67.7	53.5	51.1	52	67.5	54.9	50.2	
0:09:50	0:09:50		53.3	69.9	56.3	51.2	53.3	69.8	57.9	49.5	
0:10:00	0:10:00		52.6	66.7	53.6	51.5	52.5	66.6	54.7	50.7	

L _{avg}
64.9

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 (S011)	0:00:10	0:00:10		52.8	73.3	54.2	51.2	52.6	73.3	55.5	50.2
	0:00:20	0:00:20		51.5	65.8	52.8	50.2	51.4	65.8	53.2	49.3
	0:00:30	0:00:30		52.3	76	54.2	51.1	52.2	76	59.2	50
	0:00:40	0:00:40		57.5	85.5	69.6	51.6	59.2	85.4	72.8	51.6
	0:00:50	0:00:50		61.7	83.3	70	51	59.1	83.2	72.2	49.4
	0:01:00	0:01:00		51.1	66	51.8	49.9	51.1	65.9	52.8	48.7
	0:01:10	0:01:10		51.9	80.9	56.4	49.8	51.6	80.8	62.9	47.6
	0:01:20	0:01:20		53.7	74.9	55.8	51.9	53.8	74.9	60.2	50.4
	0:01:30	0:01:30		52.3	68.9	55.2	50.1	51.7	68.8	57.3	49.3
	0:01:40	0:01:40		50.6	65.3	51.2	49.8	50.5	65.2	52.1	48.3
	0:01:50	0:01:50		49.8	64.1	50.4	48.5	49.8	63.9	52.3	47.5
	0:02:00	0:02:00		58.6	79.2	64.5	50.3	58.5	79.1	65.8	50.2
	0:02:10	0:02:10		55.1	70.5	58.5	49.9	54.5	70.4	59.5	49
	0:02:20	0:02:20		50.9	65.9	52.2	49.6	50.9	66	53.1	48.4
	0:02:30	0:02:30		51.6	71.5	53.3	50.9	51.7	71.6	56.3	49.1
	0:02:40	0:02:40		57.2	86.7	66.6	51	55.8	86.7	70.6	48.9
	0:02:50	0:02:50		51.8	65.9	54.7	49.6	51.3	65.9	54	48.5
	0:03:00	0:03:00		50.6	69.2	51.9	49.6	50.6	69.1	54.2	48.8
	0:03:10	0:03:10		51	65	52.8	49.9	51	65	54.2	48.9
	0:03:20	0:03:20		50	63.9	51.3	48.1	49.9	63.7	52	47.2
	0:03:30	0:03:30		51.1	73.4	56.2	47.8	51.5	73.5	58.3	46.5
	0:03:40	0:03:40		52.2	67.5	54.4	50.8	51.8	67.6	55.1	48.4
	0:03:50	0:03:50		52.6	76	55.9	50.2	52.7	76	60.2	49.4
	0:04:00	0:04:00		62.6	91	71.8	54.4	61.7	91	76.5	50.9
	0:04:10	0:04:10		55.6	79.1	63.5	50.5	52.4	79.1	63.6	48.4
	0:04:20	0:04:20		54.6	82.3	59	50.3	54.7	82.3	62.5	48.6
	0:04:30	0:04:30		57.4	78.1	62	52	57	78	64.7	49.8
	0:04:40	0:04:40		52.7	71.1	58.4	50.1	51.5	71.2	57.7	48.9
	0:04:50	0:04:50		54.5	74.8	59.3	49.8	54.1	74.7	62.9	48.8
	0:05:00	0:05:00		51.1	68.4	52.9	50	51.1	68.3	55.3	49.1
0:05:10	0:05:10		50.2	71.2	51.5	48.6	50.1	71.1	56.1	47.7	
0:05:20	0:05:20		52.9	79.6	57.4	50.5	52.6	79.5	63.6	49.6	
0:05:30	0:05:30		52.3	66.8	54.9	50.8	52.1	66.9	57.6	48.4	
0:05:40	0:05:40		50.9	71.9	53.9	48.5	50.5	71.9	57.2	46.4	
0:05:50	0:05:50		50.4	76.1	55.1	47.7	50.5	76	59.9	46.6	
0:06:00	0:06:00		53.6	74.9	58.3	48.9	52.9	74.8	61.7	47.4	
0:06:10	0:06:10		50.5	71.6	52.5	48.8	50.5	71.5	55.3	47.2	
0:06:20	0:06:20		51.4	74.6	55.2	49.2	51	74.5	58.9	47.6	
0:06:30	0:06:30		51.4	68	54.1	49.2	51.6	68	57.5	48.3	
0:06:40	0:06:40		53	69.4	57.5	50.4	52.5	69.4	60.9	49	
0:06:50	0:06:50		52	76.1	56.8	49.8	51.9	76.1	61.1	48.6	
0:07:00	0:07:00		54.4	75.8	58.2	51.2	53.9	75.7	62	49.3	
0:07:10	0:07:10		51	68.7	52.8	50.1	51	68.7	55.5	49.2	
0:07:20	0:07:20		51.3	84.5	52.1	49.7	51.2	84.4	57.4	48.3	
0:07:30	0:07:30		59.1	90.8	69.8	49.9	56.6	90.8	75.5	48.4	
0:07:40	0:07:40		56.4	83.5	64.9	50.4	55.2	83.4	71.4	48.3	
0:07:50	0:07:50		56.3	87	67.1	49.4	56	87	73.3	47.8	
0:08:00	0:08:00		54.2	68.7	62.1	49.6	51.4	68.6	57.1	48.2	
0:08:10	0:08:10		54.5	75.7	58.4	49.2	54.6	75.7	62.3	47.9	
0:08:20	0:08:20		54.7	74.1	58.5	49.2	54.3	74.1	61.6	47.7	
0:08:30	0:08:30		52	71.5	56	49.3	51.3	71.5	56.5	47.3	
0:08:40	0:08:40		54.1	83.3	62.1	48.1	54.7	83.3	65.1	47.2	
0:08:50	0:08:50		55	78.9	61.5	50.4	53.5	78.8	59.8	48.6	
0:09:00	0:09:00		55	79.7	63.1	49.8	54.6	79.6	67.5	48.1	
0:09:10	0:09:10		55.1	73.4	58.5	51	53.9	73.4	63.1	47.7	
0:09:20	0:09:20		52.7	69	54.6	50.2	52.2	69	57.6	47.6	
0:09:30	0:09:30		54	80.1	60.2	50.2	53.5	80	65.8	48	
0:09:40	0:09:40		58	90.9	64.4	51.4	57.6	90.9	72.6	49.1	
0:09:50	0:09:50		61.4	82.6	66.4	55.5	60.7	82.6	68.7	50.1	
0:10:00	0:10:00		53.7	75.4	59.2	49.4	52.4	75.3	64.6	47.8	

L _{avg}
54.3

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 (S012)	0:00:10	0:00:10		51.4	73.1	52.2	50	51.3	73.1	53.5	49.3
	0:00:20	0:00:20		53.2	70.1	54.9	51.1	53.5	70	55.9	50.9
	0:00:30	0:00:30		54.4	78.4	55.4	53.3	54.3	78.4	59.9	52.1
	0:00:40	0:00:40		56.2	73.4	58.5	54.5	56.5	73.4	60.5	54.4
	0:00:50	0:00:50		60.7	74.8	63.1	58	61	74.8	64.1	57.4
	0:01:00	0:01:00		59.7	74.8	61.9	56.2	59.1	74.7	62.1	54.2
	0:01:10	0:01:10		56	71.6	57.9	54.6	55.8	71.5	58.7	53.2
	0:01:20	0:01:20		53.3	72.6	55.5	52	52.9	72.5	57.2	51.3
	0:01:30	0:01:30		53.1	67.1	54	52.5	53.1	67	55.6	51.6
	0:01:40	0:01:40		54	69.3	55.3	52.9	54.1	69.2	56.6	51.4
	0:01:50	0:01:50		55.2	70	56.6	53.6	55.1	69.9	57.8	52.6
	0:02:00	0:02:00		53.7	67	55.1	52.8	53.5	67	56.3	52
	0:02:10	0:02:10		52.8	70.9	54.4	51.8	52.6	70.9	57.7	50.7
	0:02:20	0:02:20		52.3	66.5	53	51.5	52.2	66.5	54.4	50.3
	0:02:30	0:02:30		53	67.2	54.5	51.8	53	67.1	56.1	51
	0:02:40	0:02:40		52.7	68.9	54.1	51.4	52.5	68.9	55.9	50.2
	0:02:50	0:02:50		52.9	71.3	54.7	50.6	52.9	71.3	58.6	49.1
	0:03:00	0:03:00		52.8	68.5	53.9	51.1	52.6	68.4	55.5	49.9
	0:03:10	0:03:10		53	67.9	54.4	51.2	53.2	67.8	55.6	51
	0:03:20	0:03:20		52.2	65.7	54.1	50.7	51.8	65.7	54.3	49.1
	0:03:30	0:03:30		51.1	67.4	52	50.3	51.2	67.4	53.3	49.2
	0:03:40	0:03:40		52.8	68.2	54.4	50.7	53	68.2	56	49.9
	0:03:50	0:03:50		53.6	68.6	55.5	52.3	53.4	68.6	56.5	50.8
	0:04:00	0:04:00		53.6	67.1	54.4	52.5	53.6	67.1	55.5	52.1
	0:04:10	0:04:10		53.6	69.4	55.9	52.4	53.8	69.4	57.2	51.3
	0:04:20	0:04:20		57.5	71.8	59	55.7	57.7	71.8	59.6	55
	0:04:30	0:04:30		57.5	70.6	59.6	55.8	57.3	70.6	60.6	54
	0:04:40	0:04:40		58.6	74	61.5	56.4	58.8	74	62.6	55.4
	0:04:50	0:04:50		64.5	79.3	66.5	59.8	64.6	79.3	68.2	59.2
	0:05:00	0:05:00		65.5	80.1	70.5	59.8	65.1	80.1	73	58.9
0:05:10	0:05:10		58.6	73.6	64.6	54.4	57.1	73.5	63.1	53.1	
0:05:20	0:05:20		57.1	72.2	59.5	54.6	57.1	72.2	61.1	53.4	
0:05:30	0:05:30		58	71.2	58.8	56.6	58	71.2	59.7	55.8	
0:05:40	0:05:40		58	80.8	59.3	56.8	57.9	80.8	61.6	55.5	
0:05:50	0:05:50		57.4	72.6	58.6	56.3	57.4	72.5	60.5	55.3	
0:06:00	0:06:00		58.2	74.1	60.6	56.8	58	74.1	62.9	54.9	
0:06:10	0:06:10		56.5	69.3	58.5	55.1	56.3	69.2	58.9	54.1	
0:06:20	0:06:20		55.6	68.1	57.2	54.4	55.4	68.1	57.9	53.4	
0:06:30	0:06:30		54.2	72.4	54.9	53.1	54	72.5	56.2	51.5	
0:06:40	0:06:40		53.3	70.2	55.1	52.1	53.4	70.1	56.8	51	
0:06:50	0:06:50		53	69.5	54.9	51.5	52.8	69.5	56.2	50	
0:07:00	0:07:00		52.3	67.7	53.6	51.2	52.1	67.7	55.9	50.2	
0:07:10	0:07:10		53.4	69.6	55.9	51.2	53.3	69.5	57.5	49.9	
0:07:20	0:07:20		53	72.5	55.3	51.5	53.1	72.4	59.6	50.6	
0:07:30	0:07:30		54.3	69.4	55.6	52.7	54.4	69.4	56.7	51.7	
0:07:40	0:07:40		55.1	70.6	57	53.6	54.9	70.5	58.2	52	
0:07:50	0:07:50		53.2	67.9	54.6	51.7	53.1	67.8	55.6	50.7	
0:08:00	0:08:00		54.1	69.1	55.4	52.1	54.1	69.1	56.6	51.4	
0:08:10	0:08:10		54.9	69.9	55.9	53.7	54.9	69.9	57.4	52.2	
0:08:20	0:08:20		54.8	69.8	55.8	53.9	54.6	69.7	57.7	52.3	
0:08:30	0:08:30		55.2	76.4	57.6	54	55.1	76.4	63.2	53	
0:08:40	0:08:40		54	69.1	55.6	52.7	53.6	69.1	56.8	50.9	
0:08:50	0:08:50		54.1	70.6	56.8	51.8	54.3	70.5	58.8	50.2	
0:09:00	0:09:00		54.8	70.9	55.9	53.3	54.6	70.8	58.4	52.4	
0:09:10	0:09:10		53.2	70.8	54.2	52.4	53	70.8	57.6	51.1	
0:09:20	0:09:20		53	68.8	54.4	51.5	52.8	68.8	57.1	50.4	
0:09:30	0:09:30		53	68.8	54.3	51.3	53	68.8	55.5	49.6	
0:09:40	0:09:40		53.7	69	54.8	52.1	53.6	69	56.4	50.7	
0:09:50	0:09:50		53.6	74.1	56.6	51.6	53.6	74	60.4	50.7	
0:10:00	0:10:00		53.2	68.4	54.1	52.2	53.1	68.3	55.7	51	

L _{avg}
55.6

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 (S013)	0:00:10	0:00:10		55.9	81.3	58.1	53.7	56.1	81.3	59.4	53.6
	0:00:20	0:00:20		55.9	81.8	57.1	54.5	55.8	81.8	58.8	53.3
	0:00:30	0:00:30		55.4	70.9	56.7	54.2	55.3	70.9	57.5	52.6
	0:00:40	0:00:40		52.6	66.4	54.5	51.1	52.3	66.2	55.1	50.1
	0:00:50	0:00:50		49.8	65.4	52.3	47	49.3	65.2	53	46.3
	0:01:00	0:01:00		49.4	65.5	50.7	47.3	49.7	65.4	52.1	47.2
	0:01:10	0:01:10		52.9	70.8	57.5	50	53.6	70.8	58.5	49.1
	0:01:20	0:01:20		56.3	76.8	57.9	52.4	55.7	76.8	60.7	50.1
	0:01:30	0:01:30		52.9	67.8	54	51.8	52.8	67.7	55.6	50.5
	0:01:40	0:01:40		52.7	67.7	54.1	51.4	52.7	67.7	56	50.6
	0:01:50	0:01:50		53.1	67.3	55.1	51.7	53.1	67.2	56.4	50.8
	0:02:00	0:02:00		54.2	71.3	56	53	54.1	71.3	58.4	51.5
	0:02:10	0:02:10		52.1	67.3	54.5	50.2	51.8	67.4	56.2	49.2
	0:02:20	0:02:20		54.2	70.5	58.1	50.2	54.8	70.4	59.8	50.1
	0:02:30	0:02:30		54.4	68.8	58.2	48.4	53.5	68.8	59.1	47.1
	0:02:40	0:02:40		48	62.1	49	47	48	62	49.7	46.2
	0:02:50	0:02:50		48.6	62.2	49.7	47.4	48.6	62.1	50.3	46.4
	0:03:00	0:03:00		56.4	87.9	66.9	47.7	54.1	87.8	73.8	47.4
	0:03:10	0:03:10		47.8	63.5	50.2	46.5	47.6	63.5	51.9	45.1
	0:03:20	0:03:20		48.6	62.8	49.8	47.1	48.7	62.7	51.7	46.5
	0:03:30	0:03:30		51.6	67.5	54.6	48.5	52.1	67.6	56.1	47.9
	0:03:40	0:03:40		52.9	70.1	55.9	50.3	52.6	70	57.2	49
	0:03:50	0:03:50		52.7	66.2	53.9	51.1	52.7	66.1	54.9	49.7
	0:04:00	0:04:00		52.6	68.6	55.7	50.1	52.3	68.6	57.1	48.9
	0:04:10	0:04:10		49	63.5	50.1	48.2	48.8	63.4	51.6	46.1
	0:04:20	0:04:20		50.4	65.3	51.6	49	50.4	65.2	54	47.5
	0:04:30	0:04:30		49.5	64.1	51	48.5	49.4	64	52.4	47.8
	0:04:40	0:04:40		48.7	62.9	50.8	47.5	48.9	62.9	52.4	46.5
	0:04:50	0:04:50		53.2	69.4	55.9	50.7	53.1	69.3	59	49.1
	0:05:00	0:05:00		52.7	67.6	54.1	50.5	52.8	67.6	55.5	49.1
0:05:10	0:05:10		53	65.9	53.9	51.8	52.9	65.9	55.2	50.4	
0:05:20	0:05:20		49.9	65.7	52.2	47.2	49.5	65.5	53	46.2	
0:05:30	0:05:30		47.9	61.9	49	47.3	47.9	61.9	51.2	45.9	
0:05:40	0:05:40		47.3	60.9	48.1	46.8	47.2	60.8	48.6	46.1	
0:05:50	0:05:50		47	60.9	47.6	46.4	47.1	60.9	48.6	45.8	
0:06:00	0:06:00		48.1	62.3	49	47.3	48.1	62.2	50.2	46.6	
0:06:10	0:06:10		48.9	63.5	50	47.8	49	63.3	51.9	46.2	
0:06:20	0:06:20		47.7	62	49.4	46.6	47.5	62.1	51.9	46	
0:06:30	0:06:30		46.4	60.5	47.1	45.6	46.4	60.4	48.2	44.9	
0:06:40	0:06:40		45.6	60	46.2	44.9	45.6	60	47.2	44.1	
0:06:50	0:06:50		47.9	63.7	49.4	46	48	63.7	52.7	45.6	
0:07:00	0:07:00		49	62.8	50.6	47.5	49.1	62.7	51.8	47	
0:07:10	0:07:10		49.9	67.2	50.7	48.8	49.9	67.2	52.2	48.2	
0:07:20	0:07:20		49.3	62.8	50.1	48.3	49.3	62.9	51.7	47.5	
0:07:30	0:07:30		51	68.8	54.1	49.1	51	68.8	57.7	47.6	
0:07:40	0:07:40		49.8	71.4	54.7	48.6	50.1	71.4	59.7	47.6	
0:07:50	0:07:50		50.3	67.1	54.6	47.2	49.7	67	55.4	46.4	
0:08:00	0:08:00		51.3	68	53.7	48	51.1	67.9	56.6	46.4	
0:08:10	0:08:10		50.4	64.4	51.7	48.7	50.1	64.4	54.1	46.7	
0:08:20	0:08:20		50.8	67.4	53	48.6	50.8	67.4	54.8	45.8	
0:08:30	0:08:30		49.9	66.5	52.8	48.4	49.6	66.4	55.1	47.4	
0:08:40	0:08:40		50.1	67.3	52.7	47.7	50	67.3	55.6	46.4	
0:08:50	0:08:50		48.6	63	50.2	47.6	48.4	62.9	51.6	46.6	
0:09:00	0:09:00		50.9	67.5	55.5	48	51.5	67.6	56.7	46.8	
0:09:10	0:09:10		56.9	73.9	60.5	53.1	56.8	73.9	62.6	49.8	
0:09:20	0:09:20		56.2	77.3	62.8	52.8	56.4	77.3	66	50.8	
0:09:30	0:09:30		55.5	71.6	60.6	53.6	54.4	71.6	60.1	51.5	
0:09:40	0:09:40		56.3	73.7	58	53.4	56.3	73.7	61	51.6	
0:09:50	0:09:50		57.5	73.4	59.9	53.9	57.2	73.3	62.4	52.6	
0:10:00	0:10:00		55.3	70.9	58.3	53.3	55.5	70.9	60.8	52.2	

L _{avg}
52.0

Study	Study Time	Session Time	OL Status	Lavg Meter1	Lpk Meter1	Lmax Meter1	Lmin Meter1	Lavg Meter2	Lpk Meter2	Lmax Meter2	Lmin Meter2
Study 1 (S014)	0:00:10	0:00:10		54.5	70.4	56	51.4	54.6	70.5	57.4	50.9
	0:00:20	0:00:20		51.7	66.2	54.5	49.7	51.1	66.1	54.4	48.7
	0:00:30	0:00:30		50.5	70.1	51.1	49.8	50.5	70.1	52	49.2
	0:00:40	0:00:40		50.7	64.5	51.2	50.1	50.6	64.4	52.3	48.4
	0:00:50	0:00:50		50	64.5	51.5	47.9	49.9	64.4	52.9	47.2
	0:01:00	0:01:00		54.6	69	56.6	51	54.6	69	58.5	49.8
	0:01:10	0:01:10		52.4	67.1	54.6	50.6	52.2	67.1	56.9	49
	0:01:20	0:01:20		52.5	67.2	54.1	48.2	52.2	67.2	56.3	46.5
	0:01:30	0:01:30		50	66.4	52.5	47.9	49.9	66.3	54.2	46.5
	0:01:40	0:01:40		47.8	60.8	48.6	47.1	47.7	60.9	49.2	46.2
	0:01:50	0:01:50		50.6	67.4	53.3	47	50.8	67.3	55	46.5
	0:02:00	0:02:00		49.8	64.9	51.6	48.5	49.5	64.9	53.7	46.5
	0:02:10	0:02:10		49.9	63	51.1	49	49.8	63	53.2	47.8
	0:02:20	0:02:20		49.1	63.2	50.1	47.6	49	63.2	52	46.5
	0:02:30	0:02:30		50.6	69.3	52.4	48.4	50.4	69.2	54.9	46.7
	0:02:40	0:02:40		49.5	65.4	50.6	47.9	49.4	65.4	52.6	46.7
	0:02:50	0:02:50		52.6	71.9	57.4	47.8	53	71.9	59.5	46.5
	0:03:00	0:03:00		54.3	69	56.5	51	53.8	69.1	58.6	47.9
	0:03:10	0:03:10		54.6	71.9	58.1	50.8	54.3	71.9	60.2	49.5
	0:03:20	0:03:20		51	65.9	53.9	49	51.1	65.9	56.5	48
	0:03:30	0:03:30		53	68.4	54.8	49.8	52.6	68.3	56.8	47
	0:03:40	0:03:40		52.3	67.2	55.5	48.1	52.1	67.2	57.7	46.5
	0:03:50	0:03:50		48.5	64.3	51.7	47.6	48.8	64.3	54.4	46.6
	0:04:00	0:04:00		54.6	70.3	58.2	49.2	54.8	70.2	59.7	45.6
	0:04:10	0:04:10		54.9	70.2	57.7	50.5	54.3	70.2	59.5	47.6
	0:04:20	0:04:20		52.8	71.4	58.4	48.9	53.4	71.3	60.9	46.8
	0:04:30	0:04:30		53	71.2	59	48.2	51.9	71.1	60.6	46.9
	0:04:40	0:04:40		56.5	74.3	61	50.2	56.6	74.2	63.2	48.7
	0:04:50	0:04:50		55.8	69.7	57.9	54.7	55.6	69.7	59.4	50.7
	0:05:00	0:05:00		55.7	71.7	57.2	52.5	55.5	71.7	59.3	50.4
0:05:10	0:05:10		55.6	70.5	58	52	55.4	70.6	60.2	49.8	
0:05:20	0:05:20		57.2	76.1	62.2	49.6	57.4	76	65.6	47.2	
0:05:30	0:05:30		58.1	73.2	60.8	56.4	57.6	73.1	61.8	53.1	
0:05:40	0:05:40		55.3	69.6	58.8	52.3	54.6	69.5	60.1	49.4	
0:05:50	0:05:50		52.6	67.6	55.4	49.6	52.2	67.6	57	48.3	
0:06:00	0:06:00		53.1	68.7	55.8	50.9	53.5	68.6	58.2	49.8	
0:06:10	0:06:10		54.4	69.5	56.1	52.2	54	69.4	57.6	51.2	
0:06:20	0:06:20		51.1	64.7	52.3	49.8	50.9	64.6	52.9	48.7	
0:06:30	0:06:30		50.3	66.2	54.1	49.3	50.6	66.2	56	48.6	
0:06:40	0:06:40		51.9	69	54.8	48.9	51.4	68.9	56.3	47.9	
0:06:50	0:06:50		51.2	68.8	53.1	49	51.2	68.6	56.7	48.7	
0:07:00	0:07:00		49.1	63	50.6	47.7	48.9	63	52.2	46.2	
0:07:10	0:07:10		49.6	66	52	47.9	49.5	65.9	54.8	46.3	
0:07:20	0:07:20		49.1	63.4	50.1	48.1	49.1	63.4	51.9	46.7	
0:07:30	0:07:30		48.8	64.1	49.5	47.9	48.8	64.1	50.6	46.8	
0:07:40	0:07:40		49.9	64.5	51.7	48.5	50.1	64.4	52.6	47.8	
0:07:50	0:07:50		53.1	68.1	54.5	50.6	53.3	68.2	55.2	49.2	
0:08:00	0:08:00		53.9	67.5	54.8	52.9	53.7	67.4	56	50.9	
0:08:10	0:08:10		55.2	81.2	63.5	49.8	53.9	81.2	69.2	46.2	
0:08:20	0:08:20		50.4	65.1	52.4	48.2	50.2	65.1	54	46.9	
0:08:30	0:08:30		49.7	64	51.2	48	49.3	63.9	54	46.1	
0:08:40	0:08:40		51.9	72.5	58	47.1	52.5	72.5	62.4	46.2	
0:08:50	0:08:50		53.5	69.9	58.7	49	52.6	69.8	60.8	47.1	
0:09:00	0:09:00		48.6	66	52.1	46.2	48.3	65.9	53.9	44.8	
0:09:10	0:09:10		51.5	68.4	54	48.6	51.5	68.3	57.1	47.8	
0:09:20	0:09:20		50.7	69.1	52.2	48.4	50.6	68.9	55	45.7	
0:09:30	0:09:30		50.3	69.9	56.5	46	51	69.9	58	45.2	
0:09:40	0:09:40		54	67.5	56.6	50.7	53.6	67.5	57.5	47.8	
0:09:50	0:09:50		49.1	64.2	54.1	45.9	48	64.1	54.5	44.6	
0:10:00	0:10:00		49.7	71.1	54.9	45.9	50.2	71.1	59.9	44.9	

L _{avg}
52.5

APPENDIX E

CONSTRUCTION SOURCE NOISE LEVEL DETERMINATION

Construction Noise Sources
Controlled Noise Levels

Construction Equipment Noise Data			
Equipment	Dominant Noise Components^A	L_{eq} @ 50-feet (dBA)^B	Mitigated L_{eq} @ 50-feet (dBA)^B
Air Compressor	E, C, H, I	81	75
Concrete Mixer	E, C, F, W, T	85	75
Crane, Mobile	E, C, F, I, T	83	75
Dozer	E, C, F, I, H	80	75
Generator	E, C	78	75
Grader	E, C, F, I, W	85	75
Loader	E, C, F, I, H	79	75
Paver	E, D, F, I	89	80
Pneumatic Tool	P, W, E, C	85	80
Roller	E, C, F, I, W	74	74
Saw, Electric	W	78	75
Scraper	E, C, F, I, W	88	80
Shovel	E, C, F, I, W	82	75

Footnotes:

A - Ranked noisy components. C = Casing, E = Exhaust, F = Fan, H = Hydraulics, I = Intake air, P = Pneumatic exhaust, T = Transmission, W = Work tool. Source is the Ventura County *Construction Noise Threshold Criteria and Control Plan*.

B - Unmitigated and mitigated L_{eq} data for each piece of construction equipment taken from Figure A-4 in Appendix A within Ventura County's *Construction Noise Threshold Criteria and Control Plan*.

Construction Noise Prediction
Receptor R1 (Southwest)

Demolition Phase (~14 days expected)								
Construction Phase Equipment ^A	# of Items ^A	L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Dozer	1	75	990	4	-25.9	-14.0	49.1	35.1
Excavator	1	75	990	16	-25.9	-8.0	49.1	41.1
Total:							52.1	42.1
Reduction from Shielding ^F :							0.0	0.0
Expected Noise Level at R1:							52.1	42.1

Site Preparation (~21 days)								
Construction Phase Equipment ^A	# of Items ^A	L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Dozers	1	75	400	4	-18.1	-14.0	56.9	43.0
Tractors/Loaders/Backhoes	1	75	400	16	-18.1	-8.0	56.9	49.0
Total:							59.9	49.9
Reduction from Shielding ^F :							0.0	0.0
Expected Noise Level at R1:							59.9	49.9

Grading (~28 days)								
Construction Phase Equipment ^A	# of Items ^A	L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Excavator	1	75	400	16	-18.1	-8.0	56.9	49.0
Dozer	1	75	400	16	-18.1	-8.0	56.9	49.0
Grader	1	75	400	4	-18.1	-14.0	56.9	43.0
Tractors/Loaders/Backhoes	1	75	400	16	-18.1	-8.0	56.9	49.0
Total:							63.0	54.1
Reduction from Shielding ^F :							0.0	0.0
Expected Noise Level at R1:							63.0	54.1

Construction Noise Prediction
Receptor R1 (Southwest)

Building Construction (~90 days)								
Construction Phase Equipment ^A	# of Items ^A	L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Crane	1	75	450	8	-19.1	-11.0	55.9	44.9
Generator	1	75	450	40	-19.1	-4.0	55.9	51.9
Welders (Welder/Torch)	1	74	450	20	-19.1	-7.0	54.9	47.9
Tractors/Loader/Backhoe	1	75	450	16	-19.1	-8.0	55.9	48.0
Total:							61.7	54.9
Reduction from Shielding ^F :							0.0	0.0
Expected Noise Level at R1:							61.7	54.9

Architectural Coatings (~60 days)								
Construction Phase Equipment ^A	# of Items ^A	L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Air Compressor	1	75	430	40	-18.7	-4.0	56.3	52.3
Total:							56.3	52.3
Reduction from Shielding ^F :							0.0	0.0
Expected Noise Level at R1:							56.3	52.3

Paving & Landscaping (~21 days)								
Construction Phase Equipment ^A	# of Items ^A	L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Paver	1	80	430	12	-18.7	-9.2	61.3	52.1
Concrete Mixer Truck	1	75	430	16	-18.7	-8.0	56.3	48.4
Roller	1	74	430	10	-18.7	-10.0	55.3	45.3
Total:							63.3	54.2
Reduction from Shielding ^F :							0.0	0.0
Expected Noise Level at R1:							63.3	54.2

Footnotes:

Duration of each construction phase based on estimates provided by Agromin.

A - Equipment type required for each construction phase based on CalEEMod and RS Means data, adjusted to represent the appropriate scope of Project. For each phases, it is assumed that only one of each construction equipment type would be operating simultaneously. This approach remains conservative, as it assumes all noise generating equipment would be operating simultaneously in the area closest to the receptor, when in reality equipment will be operating intermittently and at greater distances than those assessed.

B - Equipment noise levels (L_{eq}) based on Ventura County's *Construction Noise Threshold Criteria and Control Plan*. See Figure A-4 in Appendix A of the Construction Guidance document for the mitigated equipment noise levels (L_{eq}). Agromin has committed to purchasing all new equipment that is expected to incorporate modern noise-controls (upgraded mufflers, acoustical engine lining, etc.) by design. The mitigated equipment noise levels (L_{eq}) represent "estimated level obtainable by quieter methods or equipment and implementing feasible noise controls."

C - Represents closest distance (ft.) between each construction activity/phase and receptor location, estimated using Google Earth.

D - Equipment usage percent (%) based on Ventura County's *Construction Noise Threshold Criteria and Control Plan*, adjusted based on the expected construction methods.

E - Distance correction and usage adjustment (dB) factors based on applicable equations provided in the Federal Highway Administration's *Roadway Construction Noise Model*.

F - No shielding/attenuation is expected between construction noise sources and Receptor 1 (R1).

Construction Noise Prediction
Receptor R2 (South)

Demolition Phase (~14 days expected)								
Construction Phase Equipment ^A	# of Items ^A	Mitigated L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Dozer	1	75	910	4	-25.2	-14.0	49.8	35.8
Excavator	1	75	910	16	-25.2	-8.0	49.8	41.8
Total:							52.8	42.8
Reduction from Shielding ^F :							0.0	0.0
Expected Noise Level at R2:							52.8	42.8

Site Preparation (~21 days)								
Construction Phase Equipment ^A	# of Items ^A	Mitigated L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Dozers	1	75	90	4	-5.1	-14.0	69.9	55.9
Tractors/Loaders/Backhoes	1	75	90	16	-5.1	-8.0	69.9	61.9
Total:							72.9	62.9
Reduction from Shielding ^F :							0.0	0.0
Expected Noise Level at R2:							72.9	62.9

Grading (~28 days)								
Construction Phase Equipment ^A	# of Items ^A	Mitigated L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Excavator	1	75	100	16	-6.0	-8.0	69.0	61.0
Dozer	1	75	100	16	-6.0	-8.0	69.0	61.0
Grader	1	75	100	4	-6.0	-14.0	69.0	55.0
Tractors/Loaders/Backhoes	1	75	100	16	-6.0	-8.0	69.0	61.0
Total:							75.0	66.1
Reduction from Shielding ^F :							0.0	0.0
Expected Noise Level at R2:							75.0	66.1

Construction Noise Prediction
Receptor R2 (South)

Building Construction (~90 days)								
Construction Phase Equipment ^A	# of Items ^A	Mitigated L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Crane	1	75	270	8	-14.6	-11.0	60.4	49.4
Generator	1	75	270	40	-14.6	-4.0	60.4	56.4
Welders (Welder/Torch)	1	74	270	20	-14.6	-7.0	59.4	52.4
Tractors/Loader/Backhoe	1	75	270	16	-14.6	-8.0	60.4	52.4
Total:							66.1	59.4
Reduction from Shielding ^F :							0.0	0.0
Expected Noise Level at R2:							66.1	59.4

Architectural Coatings (~60 days)								
Construction Phase Equipment ^A	# of Items ^A	Mitigated L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Air Compressor	1	75	680	40	-22.7	-4.0	52.3	48.3
Total:							52.3	48.3
Reduction from Shielding ^F :							0.0	0.0
Expected Noise Level at R2:							52.3	48.3

Paving & Landscaping (~21 days)								
Construction Phase Equipment ^A	# of Items ^A	Mitigated L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Paver	1	80	230	12	-13.3	-9.2	66.7	57.5
Concrete Mixer Truck	1	75	230	16	-13.3	-8.0	61.7	53.8
Roller	1	74	230	10	-13.3	-10.0	60.7	50.7
Total:							68.7	59.7
Reduction from Shielding ^F :							0.0	0.0
Expected Noise Level at R2:							68.7	59.7

Footnotes:

Duration of each construction phase based on estimates provided by Agromin.

A - Equipment type required for each construction phase based on CalEEMod and RS Means data, adjusted to represent the appropriate scope of Project. For each phases, it is assumed that only one of each construction equipment type would be operating simultaneously. This approach remains conservative, as it assumes all noise generating equipment would be operating simultaneously in the area closest to the receptor, when in reality equipment will be operating intermittently and at greater distances than those assessed.

B - Equipment noise levels (L_{eq}) based on Ventura County's *Construction Noise Threshold Criteria and Control Plan*. See Figure A-4 in Appendix A of the Construction Guidance document for the mitigated equipment noise levels (L_{eq}). Agromin has committed to purchasing all new equipment that is expected to incorporate modern noise-controls (upgraded mufflers, acoustical engine lining, etc.) by design. The mitigated equipment noise levels (L_{eq}) represent "estimated level obtainable by quieter methods or equipment and implementing feasible noise controls."

C - Represents closest distance (ft.) between each construction activity/phase and receptor location, estimated using Google Earth.

D - Equipment usage percent (%) based on Ventura County's *Construction Noise Threshold Criteria and Control Plan*, adjusted based on the expected construction methods.

E - Distance correction and usage adjustment (dB) factors based on applicable equations provided in the Federal Highway Administration's *Roadway Construction Noise Model*.

F - No shielding/attenuation is expected between construction noise sources and Receptor 2 (R2).

Construction Noise Prediction
Receptor R3 (Southeast)

Demolition Phase (~14 days expected)								
Construction Phase Equipment ^A	# of Items ^A	Mitigated L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Dozer	1	75	1,080	4	-26.7	-14.0	48.3	34.3
Excavator	1	75	1,080	16	-26.7	-8.0	48.3	40.4
Total:							51.3	41.3
Reduction from Shielding ^F :							1.0	1.0
Expected Noise Level at R3:							50.3	40.3

Site Preparation (~21 days)								
Construction Phase Equipment ^A	# of Items ^A	Mitigated L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Dozers	1	75	190	4	-11.6	-14.0	63.4	49.4
Tractors/Loaders/Backhoes	1	75	190	16	-11.6	-8.0	63.4	55.4
Total:							66.4	56.4
Reduction from Shielding ^F :							1.0	1.0
Expected Noise Level at R3:							65.4	55.4

Grading (~28 days)								
Construction Phase Equipment ^A	# of Items ^A	Mitigated L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Excavator	1	75	210	16	-12.5	-8.0	62.5	54.6
Dozer	1	75	210	16	-12.5	-8.0	62.5	54.6
Grader	1	75	210	4	-12.5	-14.0	62.5	48.6
Tractors/Loaders/Backhoes	1	75	210	16	-12.5	-8.0	62.5	54.6
Total:							68.6	59.7
Reduction from Shielding ^F :							1.0	1.0
Expected Noise Level at R3:							67.6	58.7

Construction Noise Prediction
Receptor R3 (Southeast)

Building Construction (~90 days)								
Construction Phase Equipment ^A	# of Items ^A	Mitigated L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Crane	1	75	450	8	-19.1	-11.0	55.9	44.9
Generator	1	75	450	40	-19.1	-4.0	55.9	51.9
Welders (Welder/Torch)	1	74	450	20	-19.1	-7.0	54.9	47.9
Tractors/Loader/Backhoe	1	75	450	16	-19.1	-8.0	55.9	48.0
Total:							61.7	54.9
Reduction from Shielding ^F :							1.0	1.0
Expected Noise Level at R3:							60.7	53.9

Architectural Coatings (~60 days)								
Construction Phase Equipment ^A	# of Items ^A	Mitigated L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Air Compressor	1	75	450	40	-19.1	-4.0	55.9	51.9
Total:							55.9	51.9
Reduction from Shielding ^F :							1.0	1.0
Expected Noise Level at R3:							54.9	50.9

Paving & Landscaping (~21 days)								
Construction Phase Equipment ^A	# of Items ^A	Mitigated L _{eq} @ 50-ft. (dBA) ^B	Distance to Receptor (ft) ^C	Item Usage Percent % ^D	Distance Correction ^E	Usage Adjustment (dB) ^E	Receptor Item L _{max} (dBA)	Receptor Item L _{eq} (dBA)
Paver	1	80	230	12	-13.3	-9.2	66.7	57.5
Concrete Mixer Truck	1	75	230	16	-13.3	-8.0	61.7	53.8
Roller	1	74	230	10	-13.3	-10.0	60.7	50.7
Total:							68.7	59.7
Reduction from Shielding ^F :							1.0	1.0
Expected Noise Level at R3:							67.7	58.7

Footnotes:

Duration of each construction phase based on estimates provided by Agromin.

A - Equipment type required for each construction phase based on CalEEMod and RS Means data, adjusted to represent the appropriate scope of Project. For each phases, it is assumed that only one of each construction equipment type would be operating simultaneously. This approach remains conservative, as it assumes all noise generating equipment would be operating simultaneously in the area closest to the receptor, when in reality equipment will be operating intermittently and at greater distances than those assessed.

B - Equipment noise levels (L_{eq}) based on Ventura County's *Construction Noise Threshold Criteria and Control Plan*. See Figure A-4 in Appendix A of the Construction Guidance document for the mitigated equipment noise levels (L_{eq}). Agromin has committed to purchasing all new equipment that is expected to incorporate modern noise-controls (upgraded mufflers, acoustical engine lining, etc.) by design. The mitigated equipment noise levels (L_{eq}) represent "estimated level obtainable by quieter methods or equipment and implementing feasible noise controls."

C - Represents closest distance (ft.) between each construction activity/phase and receptor location, estimated using Google Earth.

D - Equipment usage percent (%) based on Ventura County's *Construction Noise Threshold Criteria and Control Plan*, adjusted based on the expected construction methods.

E - Distance correction and usage adjustment (dB) factors based on applicable equations provided in the Federal Highway Administration's *Roadway Construction Noise Model*.

F - Minimal attenuation is provided by the row of windbreak trees along the Facility's eastern boundary. This tree row will be preserved and is anticipated to provide -1 dBA of attenuation at R3.

APPENDIX F

PROJECT INDUSTRIAL SOURCE NOISE IMPACT DETERMINATION

SoundPLAN Essential 3.0 - Model Settings & Data

Noise Standards Utilized	
Noise Source	Noise Standard
Traffic/Road	Traffic Noise Model - FHWA; 1998 (TNM)
Industrial	ISO 9613-2: 1996

Environmental/Meteorological Settings		
Parameter	Setting	Unit
Temperature	61	F°
	16.1	C°
Humidity	79	%
Air Pressure	1013	mbar (SoundPLAN default)

Note: Average temperature and humidity data for Santa Paula taken from the Western Regional Climate Center (WRCC).

Calculation Settings		
Grid Noise Map		
Height above ground:	1.5	meters
	4.9	feet
Grid distance:	5.0	meters
	16.4	feet
Limit Lines		
Height above ground:	1.5	meters
	4.9	feet

Receiver Settings		
Height above ground for free field receivers:	1.5	meters
	4.9	feet
Height above ground floor for building receivers:	2	meters
	6.6	feet
Floor height:	3.7	meters
	12.1	feet

Volume Attenuation Areas		
Type	Description	Height
Foliage	Windbreak trees along eastern Facility boundary	9.1 meters
		30 feet

Facility Building Data	
Name	Height
Administration Building	9.4 meters
	31 feet
Maintenance Building	11.9 meters
	39 feet
Production Building	11.9 meters
	39 feet
Dry Organics (Green / Wood)	11.9 meters
	39 feet
Wet Organics (Food)	11.9 meters
	39 feet

Facility Industrial Noise Source Summary					
Source Description		Noise Level (dBA)		Model Parameters	
Name	Noise Sources	L _{eq} @ 50-feet	Basis	Source Type	Reference Spectrum
Open Windrow Composting	Off-road equipment (loaders, tractors, etc.), On-road equipment (water trucks), Portable equipment (grinders, screens, etc.), Bagging operations, Vehicles, etc.	89.0	Oxnard-Shoreline Source Calculations	Area Source	Averaged Industry
CASP System	Blower/Fan Group	67.0	Manufacturer Information	Point Source	Centrifugal Blower
AD System	Internal Combustion Engine & Exhaust	61.3	Manufacturer Information	Point Source	Axial-Flow Fan

Industrial Noise Impacts @ Facility Receptors (R1, R2, and R3)									
Receptor	Ambient Noise Levels (dBA)			Facility Noise Levels (dBA) ^A			Total Noise Level (dBA) ^B		
	Daytime (L _{eq})	Evening (L _{eq})	Nighttime (L _{eq})	Daytime (L _{eq})	Evening (L _{eq})	Nighttime (L _{eq})	Daytime (L _{eq})	Evening (L _{eq})	Nighttime (L _{eq})
R1 (southwest)	51.8	43.0	45.1	24.9	0.0	0.0	51.9	43.0	45.1
R2 (south)	46.4	37.6	39.7	30.7	17.0	17.0	46.6	37.6	39.7
R3 (southeast)	44.0	35.2	37.3	23.0	7.1	7.1	44.1	35.2	37.3

A - Facility noise levels at nearby receptors were modeled in SoundPLAN Essential software. Please note that open windrow equipment (i.e. Oxnard-Shoreline Facility Sources) will operate during the daytime only. The CASP and AD systems equipment will operate 24-hours/day, and therefore evening and nighttime noise levels were input into the model. See the model results presented in Appendix E and Figure 5 for more detail.

B - The total noise level at each receptor was determined by combining the ambient noise level with the noise level generated by Facility industrial operations, as modeled in SoundPLAN Essential. The total noise level is utilized to determine the significance of noise impacts to Facility receptors (R1, R2, R3).

Total Noise Level & Ventura County Significance Determination									
Parameter	Receptor 1 (R1)			Receptor 2 (R2)			Receptor 3 (R3)		
	Daytime (L _{eq})	Evening (L _{eq})	Nighttime (L _{eq})	Daytime (L _{eq})	Evening (L _{eq})	Nighttime (L _{eq})	Daytime (L _{eq})	Evening (L _{eq})	Nighttime (L _{eq})
Total Noise Level (dBA) ^B	51.9	43.0	45.1	46.6	37.6	39.7	44.1	35.2	37.3
Significance Threshold ^C	55.0	50.0	48.1	55.0	50.0	45.0	55.0	50.0	45.0
Significant?	No	No	No	No	No	No	No	No	No

C - Significance thresholds shown for daytime (6:00 AM-7:00 PM), evening (7:00 PM-10:00 PM), and nighttime (10:00 PM-6:00 AM) are from the Ventura County *General Plan Noise Element*. Per Ventura County guidance, if the ambient noise level exceeds the "fixed" threshold, then the "ambient +3 dBA" was utilized as the significance threshold. See Appendix C for more detail.

Covered Aerated Static Pile (CASP)

CASP Noise Source Data							
Noise Source	Manufacturer/ Model	Noisy Component	Manufacturer Information		Converted		Arithmetic SPL (10 ^(X/10))
			Measured Distance (ft.)	Measured Noise Level (dBA)	Reference Distance (ft.)	Converted Noise Level (dBA)	
Aeration Fan #1	TS272-008	Outlet Duct	5	84	50	64	2511886.4
Aeration Fan #2	TS272-008	Outlet Duct	5	84	50	64	2511886.4

Total CASP Noise Level @ 50-feet: 67.0 dBA

Note: The noise information shown above was provided by GORE™ Creative Technologies Worldwide (GORE). GORE confirmed that two (2) fans would be required to aerated the proposed 75,000 ton/year CASP system. The noise level shown is based on GORE field measurements collected 5-feet from the fan outlet duct.

Anaerobic Digester (AD)

AD Noise Source Data (SMARTFERM®)						
Noise Source	Noisy Component	Manufacturer Information		Converted		Arithmetic SPL (10 ^(x/10))
		Measured Distance (ft.)	Measured Noise Level (dBA)	Reference Distance (ft.)	Converted Noise Level (dBA)	
Internal Combustion Engine	Exhaust	32.8	65	50	61.3	1361505.825
Total AD Noise Level @ 50-feet:						61.3

dBA

Note: The noise information shown above was provided by Zero Waste Energy (ZWE). ZWE confirmed that the primary noise generating component of their SMARTFERM® AD system is the engine exhaust. ZWE confirmed that one 100 kW internal combustion engine would power each AD system. The noise level shown above is based on ZWE field measurements collected 10 meters (32.8 feet) from the engine exhaust outlet.

MODEL OUTPUT FILES - INDUSTRIAL NOISE

Noise Emissions of Industry Sources

Source name	Reference	Level		Frequency spectrum [dB(A)]								Corrections		
			dB(A)	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Kwall dB(A)	CI dB(A)	CT dB(A)
AD Engine	Unit	Leq1	61.3	28.8	46.4	55.4	54.8	53.0	54.2	51.5	47.9	-	-	-
		Leq2	61.3	28.8	46.4	55.4	54.8	53.0	54.2	51.5	47.9	-	-	-
		Leq3	61.3	28.8	46.4	55.4	54.8	53.0	54.2	51.5	47.9	-	-	-
CASP System 2	Unit	Leq1	67.0	25.2	43.3	63.3	58.2	58.4	59.1	57.4	51.3	-	-	-
		Leq2	67.0	25.2	43.3	63.3	58.2	58.4	59.1	57.4	51.3	-	-	-
		Leq3	67.0	25.2	43.3	63.3	58.2	58.4	59.1	57.4	51.3	-	-	-
CASP System 1	Unit	Leq1	67.0	25.2	43.3	63.3	58.2	58.4	59.1	57.4	51.3	-	-	-
		Leq2	67.0	25.2	43.3	63.3	58.2	58.4	59.1	57.4	51.3	-	-	-
		Leq3	67.0	25.2	43.3	63.3	58.2	58.4	59.1	57.4	51.3	-	-	-
Windrows 1	Unit	Leq1	89.0	72.1	77.1	81.2	82.3	82.9	81.2	78.8	74.8	-	-	-
		Leq2	-	-	-	-	-	-	-	-	-	-	-	-
		Leq3	-	-	-	-	-	-	-	-	-	-	-	-
Windrows 2	Unit	Leq1	89.0	72.1	77.1	81.2	82.3	82.9	81.2	78.8	74.8	-	-	-
		Leq2	-	-	-	-	-	-	-	-	-	-	-	-
		Leq3	-	-	-	-	-	-	-	-	-	-	-	-
Windrows 3	Unit	Leq1	89.0	72.1	77.1	81.2	82.3	82.9	81.2	78.8	74.8	-	-	-
		Leq2	-	-	-	-	-	-	-	-	-	-	-	-
		Leq3	-	-	-	-	-	-	-	-	-	-	-	-

Receiver List

No.	Receiver name	Coordinates		Building side	Floor	Height m	Limit			Level			Conflict		
		X	Y				Leq1	Leq2	Leq3	Leq1	Leq2	Leq3	Leq1	Leq2	Leq3
1	R1 (southwest)	304169.21	3797362.6		1.FI	0.56	-	-	-	24.9	-0.1	-0.1	-	-	-
2	R2 (south)	304674.7	3797437.9		1.FI	1.40	-	-	-	30.7	17.0	17.0	-	-	-
3	R3 (southeast)	304929.5	3797623.7		1.FI	1.19	-	-	-	22.5	6.8	6.8	-	-	-
					2.FI	4.89	-	-	-	23.0	7.1	7.1	-	-	-

Contribution Levels of the Receivers

Source name		Leq1	Level Leq2 dB(A)	Leq3
R1 (southwest)	1.FI	24.9	-0.1	-0.1
AD Engine		-12.4	-12.4	-12.4
CASP System 1		-5.2	-5.2	-5.2
CASP System 2		-2.1	-2.1	-2.1
Windrows 1		21.5	0.0	0.0
Windrows 2		16.4	0.0	0.0
Windrows 3		20.9	0.0	0.0
R2 (south)	1.FI	30.7	17.0	17.0
AD Engine		11.4	11.4	11.4
CASP System 1		14.6	14.6	14.6
CASP System 2		9.0	9.0	9.0
Windrows 1		29.6	0.0	0.0
Windrows 2		14.3	0.0	0.0
Windrows 3		22.7	0.0	0.0
R3 (southeast)	1.FI	22.5	6.8	6.8
AD Engine		-4.4	-4.4	-4.4
CASP System 1		4.4	4.4	4.4
CASP System 2		2.3	2.3	2.3
Windrows 1		20.7	0.0	0.0
Windrows 2		13.9	0.0	0.0
Windrows 3		15.1	0.0	0.0
R3 (southeast)	2.FI	23.0	7.1	7.1
AD Engine		-4.3	-4.3	-4.3
CASP System 1		4.6	4.6	4.6
CASP System 2		2.5	2.5	2.5
Windrows 1		20.9	0.0	0.0
Windrows 2		14.4	0.0	0.0
Windrows 3		16.5	0.0	0.0

Spectra of the Receivers

No.	Name	Floor	Time slice	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
1	R1 (southwest)	1.FI	Leq1	10.3	15.0	18.7	19.0	18.7	15.2	6.5	-18.3
			Leq2	-35.6	-18.7	-2.0	-8.1	-9.6	-11.5	-21.3	-57.5
			Leq3	-35.6	-18.7	-2.0	-8.1	-9.6	-11.5	-21.3	-57.5
2	R2 (south)	1.FI	Leq1	14.9	19.8	24.1	24.6	24.7	22.2	17.0	4.0
			Leq2	-19.4	-1.7	13.3	9.3	8.7	9.1	5.7	-4.6
			Leq3	-19.4	-1.7	13.3	9.3	8.7	9.1	5.7	-4.6
3	R3 (southeast)	1.FI	Leq1	9.8	14.0	16.6	16.4	15.7	12.0	2.7	-23.9
			Leq2	-31.3	-13.5	4.0	-1.1	-1.6	-2.1	-8.4	-31.0
			Leq3	-31.3	-13.5	4.0	-1.1	-1.6	-2.1	-8.4	-31.0
		2.FI	Leq1	10.1	14.4	17.1	16.9	16.2	12.4	3.0	-23.7
			Leq2	-31.1	-13.3	4.3	-0.9	-1.4	-1.8	-8.2	-30.7
			Leq3	-31.1	-13.3	4.3	-0.9	-1.4	-1.8	-8.2	-30.7

APPENDIX G

PROJECT TRAFFIC SOURCE NOISE IMPACT DETERMINATION

Traffic Model Data Summary + Inputs

BASELINE - Limoneira/Agromin Agricultural Composting Operation (Santa Paula)								
Trip Type	Vehicle Type	Vehicle Category	Yearly Loads ^A	Daily Loads ^B	Avg. Daily Trips ^C	Operation Hours ^D	% Distribution Throughout Operating Day ^D	Trips During Peak Hour ^E
Incoming Waste	Front Loader	HHD	0	0	0	7AM-5PM, Mon.-Fri.	9 AM-11 AM (40%), 1 PM-3 PM (35%), rest throughout day (25%)	0
	Side Loader	HHD	3,496	14	28	7AM-5PM, Mon.-Fri.	9 AM-11 AM (40%), 1 PM-3 PM (35%), rest throughout day (25%)	6
	Transfer Trailer	HHD	1,547	6	12	7AM-5PM, Mon.-Fri.	9 AM-3 PM (90%), rest throughout day (10%)	3
	Business Haul	LDT	1,410	6	12	7AM-5PM, Mon.-Fri.	10 AM-4 PM (90%), rest throughout day (10%)	2
	Self Haul	LDT	1,081	5	10	7AM-5PM, Mon.-Fri.	10 AM-4 PM (90%), rest throughout day (10%)	2
	Roll Off	HHD	772	3	6	7AM-5PM, Mon.-Fri.	Evenly throughout day	1
Incoming Deliveries	Transfer Trailer	HHD	0	0	0	7AM-5PM, Mon.-Fri.	10 AM-4 PM (90%), rest throughout day (10%)	0
Outgoing Sales	Roll Off	HHD	47	1	2	7AM-5PM, Mon.-Fri.	Evenly throughout day	1
	Transfer Trailer	HHD	1140	5	10	7AM-5PM, Mon.-Fri.	Evenly throughout day	1
	Dump Truck	HHD	393	2	4	7AM-5PM, Mon.-Fri.	Evenly throughout day	1
	Self Pickup/Trailer	LDT	1572	7	14	7AM-5PM, Mon.-Fri.	10 AM-3 PM (85%), rest throughout day (15%)	3
Employees	Employees	LDA	11	1	2	7AM-5PM, Mon.-Sat.	Arrive between 6AM-7AM. Depart between 5PM-6PM.	1
	Visitors	LDA	2	1	2	7AM-5PM, Mon.-Sat.	Evenly throughout day	1
Totals:				51	102			
Baseline Operating Days:				260	days/year			

PROJECT - Biogenic Energy Park (Santa Paula)								
Trip Type	Vehicle Type	Vehicle Category	Yearly Loads ^A	Daily Loads ^B	Avg. Daily Trips ^C	Operation Hours ^D	% Distribution Throughout Operating Day ^D	Trips During Peak Hour ^E
Incoming Waste	Front Loader	HHD	8,823	34	68	7AM-5PM, Mon.-Fri.	9 AM-11 AM (40%), 1 PM-3 PM (35%), rest throughout day (25%)	14
	Side Loader	HHD	10,177	40	80	7AM-5PM, Mon.-Fri.	9 AM-11 AM (40%), 1 PM-3 PM (35%), rest throughout day (25%)	16
	Transfer Trailer	HHD	6,225	25	50	7AM-5PM, Mon.-Fri.	9 AM-3 PM (90%), rest throughout day (10%)	12
	Business Haul	LDT	5,457	21	42	7AM-5PM, Mon.-Fri.	10 AM-4 PM (90%), rest throughout day (10%)	7
	Self Haul	LDT	26,702	103	206	7AM-5PM, Mon.-Fri.	10 AM-4 PM (90%), rest throughout day (10%)	31
	Roll Off	HHD	1,439	6	12	7AM-5PM, Mon.-Fri.	Evenly throughout day	2
Incoming Deliveries	Transfer Trailer	HHD	1,788	9	18	7AM-5PM, Mon.-Fri.	10 AM-4 PM (90%), rest throughout day (10%)	3
Outgoing Sales	Roll Off	HHD	1,163	4	8	7AM-5PM, Mon.-Fri.	Evenly throughout day	1
	Transfer Trailer	HHD	5,713	22	44	7AM-5PM, Mon.-Fri.	Evenly throughout day	5
	Dump Truck	HHD	7,232	28	56	7AM-5PM, Mon.-Fri.	Evenly throughout day	6
	Self Pickup/Trailer	LDT	5,627	22	44	7AM-5PM, Mon.-Fri.	10 AM-3 PM (85%), rest throughout day (15%)	8
Employees	Employees	LDA	13,520	52	104	7AM-5PM, Mon.-Sat.	Arrive between 6AM-7AM. Depart between 5PM-6PM.	52
	Visitors	LDA	2,600	10	20	7AM-5PM, Mon.-Sat.	Evenly throughout day	2
Totals:				376	752			
Project Operating Days:				260	days/year			

Footnotes:
A - Baseline yearly loads based on actual data collected at the existing 15-acre Santa Paula facility during the 2014 operating year. Estimated Project yearly loads were calculated by scaling up the baseline loads to reflect the expanded feedstock storage and processing capacity of the new 70-acre Facility.
B - Daily loads equals the yearly loads divided by the number of operating days per year.
C - Average daily trips is the number of daily loads doubled, based on the assumption that each vehicle will make a round trip (1 inbound, 1 outbound) each time they travel to the facility.
D - Operating hours and distribution % throughout the day is based on information provided by Agromin.
E - Based on the trip distribution % throughout the day, the expect peak hour for traffic is between 10:00 AM - 11:00 AM. The peak hour trips shown represent the number of vehicle trips expected during this peak hour.

Total Trip Distribution on Local Roadways				
Route	Distribution %	Total Baseline Facility Trips	Total Project Trips	Increment
Northbound SR 118 to Telegraph Road	12%	13	91	78
Eastbound SR 126, exit Wells Road to Telegraph Road	68%	70	512	442
Ventura side streets to Telegraph Road	6%	7	46	39
Santa Paula side streets to Telegraph Road	4%	5	31	26
Westbound SR 126, exit Briggs Road to Telegraph Road	10%	11	76	65

Traffic Model Data Summary + Inputs

Average Hour Trips by Vehicle Type				
Vehicle Type	Baseline Facility Trips	Project Trips	Increment	Average Hour % of Total Trips
Haul Truck (HHD)	7	34	27	4%
Light-Duty Truck (LDT)	4	30	26	3%
Passenger (LDA)	1	13	12	2%
Totals:	12	77	65	9%

Note: Referring to the trip distribution shown on the previous sheet, vehicle activity may occur anytime between the Facility's operation hours of 7:00 AM-5:00 PM. Average vehicle trips are determined by taking the daily trips and dividing them by the total number of operating hours in a single day (i.e. 10 hours).

Peak Hour Trips by Vehicle Type				
Vehicle Type	Baseline Facility Trips	Project Trips	Increment	Peak Hour % of Total Trips
Haul Truck (HHD)	13	59	46	8%
Light-Duty Truck (LDT)	7	46	39	6%
Passenger (LDA)	2	54	52	7%
Totals:	22	159	137	21%

Note: Based on the trip distribution shown on the previous sheet, it is assumed that peak vehicle activity will occur between 10:00 AM - 11:00 AM. Although employees are not expected to arrive during this peak hour (see employee trip distribution % on previous sheet), conservatively it is assumed 50% of the employee trips will also occur during the peak hour (10:00 AM - 11:00 AM).

Haul Road Model Inputs & Peak Hour Trip Data								
Road	Speed Limit (km/h)	Road Width (m)	Road Material ^A	Truck Type	Baseline Trips ^B	% of Trips	Total Trips (Baseline + Project)	% of Trips
Briggs Road	41 (25 MPH)	8	PCC	Haul Truck (HHD)	2	50%	6	35%
				Light-Duty Truck (LDT)	1	25%	5	29%
				Passenger (LDA)	1	25%	6	35%
Santa Paula side streets	81 (50 MPH)	8	PCC	Haul Truck (HHD)	1	33%	3	38%
				Light-Duty Truck (LDT)	1	33%	2	25%
				Passenger (LDA)	1	33%	3	38%
Telegraph Road (eastside)	81 (50 MPH)	8	PCC	Haul Truck (HHD)	3	1%	9	3%
				Light-Duty Truck (LDT)	2	1%	7	2%
				Passenger (LDA)	261	98%	268	94%
Edwards Ranch Road	41 (25 MPH)	6	Averaged (of DGAC and PCC)	Haul Truck (HHD)	15	52%	61	37%
				Light-Duty Truck (LDT)	9	31%	47	28%
				Passenger (LDA)	5	17%	57	35%
Olive Road	41 (25 MPH)	6	PCC	Haul Truck (HHD)	0	0%	0	0%
				Light-Duty Truck (LDT)	0	0%	0	0%
				Passenger (LDA)	23	100%	23	100%
Telegraph Road (westside)	81 (50 MPH)	8	PCC	Haul Truck (HHD)	12	4%	52	13%
				Light-Duty Truck (LDT)	7	3%	40	10%
				Passenger (LDA)	260	93%	305	77%
Ventura side streets	81 (50 MPH)	8	PCC	Haul Truck (HHD)	1	33%	4	36%
				Light-Duty Truck (LDT)	1	33%	3	27%
				Passenger (LDA)	1	33%	4	36%
Wells Road	73 (45 MPH)	19	PCC	Haul Truck (HHD)	11	58%	48	37%
				Light-Duty Truck (LDT)	6	32%	37	29%
				Passenger (LDA)	2	11%	44	34%

Footnotes:
 Note: Each road segment shown above was modeled within SoundPLAN Essential 3.0. Both baseline and Project traffic was modeled to determine the incremental noise impacts to haul route receptors due to increased traffic on local roadways resulting from the Project.
 A - Road Material: PCC = Portland cement concrete, DGAC = dense-graded asphaltic concrete
 B - Baseline trips are based on actual vehicle counts collected by ATE on 1/21/2016 (see follow sheet) as well as actual data collected at the existing 15-acre Santa Paula facility during the 2014 operating year. Because the ATE traffic count does not distinguish between vehicle types, it is assumed that these trips were passenger vehicles (LDA). This represents the most conservative approach as passenger vehicles generate the lowest noise levels within SoundPLAN (i.e. lower baseline = larger Project haul truck impacts).

Road Segment	Direction	Peak Hour Traffic Count
Edwards Ranch Road/Olive Road (north of Facility)	Northbound	11
	Southbound	12
	Eastbound	---
	Westbound	---

Road Segment	Direction	Peak Hour Traffic Count
Telegraph Road (west of Facility)	Northbound	---
	Southbound	---
	Eastbound	124
	Westbound	135

Road Segment	Direction	Peak Hour Traffic Count
Telegraph Road (east of Facility)	Northbound	---
	Southbound	---
	Eastbound	133
	Westbound	124

Note: Based on the trip distribution shown on the previous sheet, it is assumed that peak vehicle activity will occur between 10:00 AM - 11:00 AM. The data shown represents the actual vehicle count measured during this peak hour (10:00 AM-11:00 AM) on 1/21/2016 by Associated Traffic Engineer's (ATE). As the traffic count provided by ATE doesn't distinguish between vehicle types, each vehicle is assumed to be a passenger car (LDA) when modeled in SoundPLAN. This represents the most conservative approach as passenger vehicles generate the lowest noise levels within SoundPLAN (i.e. lower baseline = larger Project haul truck impacts).

Haul Route Receptors			
Receptor	Description	# of Floors	Existing Barriers
R4	Briggs School	1	None
R5	Residential Dwelling	1	None
R6	Residential Dwelling	1	None
R7	Residential Dwelling	1	None
R8	Residential Housing Tract	1	4-Foot Wall along Telegraph Road
R9	Palms at Bonaventure Assisted Living & Memory Care	3	None

Baseline & Project Traffic Noise Levels @ Haul Route Receptors				
Receptor	Baseline (dBA)	Applicable $L_{eq}(1hr)$	Project (dBA)	Noise Level Change (dBA)
	Daytime Outdoor $L_{eq}(1hr)$	Significance Threshold^A	Daytime Outdoor $L_{eq}(1hr)$	Daytime Outdoor $L_{eq}(1hr)$
R4	49.1	65.0	53.5	4.4
R5	55.8	65.0	57.7	1.9
R6	57.0	65.0	61.3	4.3
R7	49.7	65.0	54.8	5.1
R8	58.9	65.0	63.4	4.5
R9	56.8	65.0	62.3	5.5

Note: Both the baseline and Project traffic noise levels at haul route receptors were modeled in SoundPLAN Essential. See previous sheet which describes the methodologies and traffic counts input into both the baseline and Project traffic noise models. Please see Figure 6 (Appendix A) for the baseline model results and Figure 7 (Appendix A) for the Project traffic model results.

A - Per Ventura County guidance, the traffic significance threshold is either the "fixed" threshold of 65 dBA $L_{eq}(1hr)$ or, if background noise levels exceed or are within 3 decibels of the fixed threshold, then the "ambient noise level +3 dBA" is utilized as the significance threshold.

Total Traffic Noise Levels & Significance Determination			
Receptor	Total Traffic Noise Level ($L_{eq}1H$)	Significance Threshold ($L_{eq}1H$)	Significant?
R4	54.8	65.0	No
R5	59.9	65.0	No
R6	62.7	65.0	No
R7	56.0	65.0	No
R8	64.7	65.0	No
R9	63.4	65.0	No

MODEL OUTPUT FILES - ROAD NOISE (BASELINE)

Noise Emissions of Road Traffic

Station km	ADT Veh/24	Vehicles type	Traffic values			Control device	Constr. Speed km/h	Affect. veh. %	Road surface	Gradient Min / Max %
			Vehicle name	day Veh/h	Speed km/h					
Edwards Ranch Rd (southbound) Traffic direction: In entry direction										
0+000	696	Total	-	29	-	Stop sign	0.0	100.0	Average (of DGAC and PCC)	0.0
		Automobiles	-	5	41					
		Medium trucks	-	9	41					
		Heavy trucks	-	15	41					
		Buses	-	-	41					
		Motorcycles	-	-	41					
		Auxiliary Vehicle	-	-	41					
1+144	-									
Edwards Ranch Rd (northbound) Traffic direction: In entry direction										
0+000	696	Total	-	29	-	none	-	-	Average (of DGAC and PCC)	0.0
		Automobiles	-	5	41					
		Medium trucks	-	9	41					
		Heavy trucks	-	15	41					
		Buses	-	-	41					
		Motorcycles	-	-	41					
		Auxiliary Vehicle	-	-	41					
1+138	-									
Telegraph Rd east (eastbound) Traffic direction: In entry direction										
0+000	6384	Total	-	266	-	Stop sign	0.0	100.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	261	81					
		Medium trucks	-	2	81					
		Heavy trucks	-	3	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
3+119	-									
Telegraph Rd east (westbound) Traffic direction: In entry direction										
0+000	6384	Total	-	266	-	none	-	-	PCC (Portland cement concrete)	0.0
		Automobiles	-	261	81					
		Medium trucks	-	2	81					
		Heavy trucks	-	3	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
3+118	-									
SP Side Streets (eastbound) Traffic direction: In entry direction										
0+000	72	Total	-	3	-	none	-	-	PCC (Portland cement concrete)	0.0
		Automobiles	-	1	81					
		Medium trucks	-	1	81					
		Heavy trucks	-	1	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
0+504	-									
SP Side Streets (westbound) Traffic direction: In entry direction										
0+000	72	Total	-	3	-	none	-	-	PCC (Portland cement concrete)	0.0
		Automobiles	-	1	81					
		Medium trucks	-	1	81					
		Heavy trucks	-	1	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
0+502	-									

Noise Emissions of Road Traffic

Station km	ADT Veh/24	Vehicles type	Traffic values			Control device	Constr. Speed km/h	Affect. veh. %	Road surface	Gradien Min / Ma %
			Vehicle name	day Veh/h	Speed km/h					
Briggs Rd (southbound) Traffic direction: In entry direction										
0+000	96	Total	-	4	-	Stop sign	0.0	100.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	1	41					
		Medium trucks	-	1	41					
		Heavy trucks	-	2	41					
		Buses	-	-	41					
		Motorcycles	-	-	41					
		Auxiliary Vehicle	-	-	41					
0+647	-									
Briggs Rd (northbound) Traffic direction: In entry direction										
0+000	96	Total	-	4	-	On ramp	0.0	100.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	1	41					
		Medium trucks	-	1	41					
		Heavy trucks	-	2	41					
		Buses	-	-	41					
		Motorcycles	-	-	41					
		Auxiliary Vehicle	-	-	41					
0+647	-									
Telegraph Rd west (westbound) Traffic direction: In entry direction										
0+000	6696	Total	-	279	-	Stop sign	0.0	100.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	260	81					
		Medium trucks	-	7	81					
		Heavy trucks	-	12	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
3+117	-									
Telegraph Rd west (eastbound) Traffic direction: In entry direction										
0+000	6696	Total	-	279	-	Traffic light	0.0	50.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	260	81					
		Medium trucks	-	7	81					
		Heavy trucks	-	12	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
3+117	-									
VTA Side Streets (westbound) Traffic direction: In entry direction										
0+000	72	Total	-	3	-	Traffic light	0.0	50.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	1	81					
		Medium trucks	-	1	81					
		Heavy trucks	-	1	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
0+935	-									
VTA Side Streets (eastbound) Traffic direction: In entry direction										
0+000	72	Total	-	3	-	none	-	-	PCC (Portland cement concrete)	0.0
		Automobiles	-	1	81					
		Medium trucks	-	1	81					
		Heavy trucks	-	1	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
0+934	-									

Noise Emissions of Road Traffic

Station km	ADT Veh/24	Vehicles type	Traffic values			Control device	Constr. Speed km/h	Affect. veh. %	Road surface	Gradien Min / Ma %
			Vehicle name	day Veh/h	Speed km/h					
Wells Rd (southbound) Traffic direction: In entry direction										
0+000	456	Total	-	19	-	Traffic light	0.0	50.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	2	73					
		Medium trucks	-	6	73					
		Heavy trucks	-	11	73					
		Buses	-	-	73					
		Motorcycles	-	-	73					
		Auxiliary Vehicle	-	-	73					
0+744	-									
Wells Rd (northbound) Traffic direction: In entry direction										
0+000	456	Total	-	19	-	none	-	-	PCC (Portland cement concrete)	0.0
		Automobiles	-	2	73					
		Medium trucks	-	6	73					
		Heavy trucks	-	11	73					
		Buses	-	-	73					
		Motorcycles	-	-	73					
		Auxiliary Vehicle	-	-	73					
0+744	-									
Olive Rd (north) Traffic direction: In entry direction										
0+000	552	Total	-	23	-	Stop sign	0.0	100.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	23	41					
		Medium trucks	-	-	41					
		Heavy trucks	-	-	41					
		Buses	-	-	41					
		Motorcycles	-	-	41					
		Auxiliary Vehicle	-	-	41					
0+767	-									
Olive Rd (south) Traffic direction: In entry direction										
0+000	552	Total	-	23	-	none	-	-	PCC (Portland cement concrete)	0.0
		Automobiles	-	23	41					
		Medium trucks	-	-	41					
		Heavy trucks	-	-	41					
		Buses	-	-	41					
		Motorcycles	-	-	41					
		Auxiliary Vehicle	-	-	41					
0+767	-									

Receiver List

No.	Receiver name	Coordinates		Building side	Floor	Height m	Limit L(Aeq1h) dB(A)	Level L(Aeq1h) dB(A)	Conflict L(Aeq1h) dB(A)
		X	Y						
1	R4 - Briggs School	306357.78	3800531.03		1.FI	1.50	-	49.1	-
2	R5 - Residence	304744.36	3799441.67		1.FI	1.50	-	55.8	-
3	R6 - Residence	303807.74	3798782.93		1.FI	1.50	-	57.0	-
4	R7 - Residence	303689.07	3798964.46		1.FI	1.50	-	49.7	-
5	R8 - Residence	301230.19	3797032.41		1.FI	1.50	-	58.9	-
6	R9 - Retirement Home				1.FI	1.50	-	54.0	-
					2.FI	5.20	-	55.5	-
					3.FI	8.90	-	56.8	-

Contribution Levels of the Receivers

Source name	Lane	Level L(Aeq1h) dB(A)
Telegraph Rd west (eastbound)		36.8
Telegraph Rd west (westbound)		44.1
VTA Side Streets (eastbound)		-0.4
VTA Side Streets (westbound)		5.7
Wells Rd (northbound)		9.5
Wells Rd (southbound)		16.3
R8 - Residence	1.FI	58.9
Briggs Rd (northbound)		0.0
Briggs Rd (southbound)		0.0
Edwards Ranch Rd (northbound)		17.7
Edwards Ranch Rd (southbound)		24.0
Olive Rd (north)		2.3
Olive Rd (south)		-5.6
SP Side Streets (eastbound)		0.0
SP Side Streets (westbound)		0.0
Telegraph Rd east (eastbound)		16.6
Telegraph Rd east (westbound)		12.8
Telegraph Rd west (eastbound)		56.6
Telegraph Rd west (westbound)		54.1
VTA Side Streets (eastbound)		25.4
VTA Side Streets (westbound)		32.4
Wells Rd (northbound)		40.7
Wells Rd (southbound)		46.2
R9 - Retirement Home	1.FI	54.0
Briggs Rd (northbound)		0.0
Briggs Rd (southbound)		0.0
Edwards Ranch Rd (northbound)		14.8
Edwards Ranch Rd (southbound)		21.8
Olive Rd (north)		1.4
Olive Rd (south)		-6.0
SP Side Streets (eastbound)		0.0
SP Side Streets (westbound)		0.0
Telegraph Rd east (eastbound)		16.0
Telegraph Rd east (westbound)		12.3
Telegraph Rd west (eastbound)		50.2
Telegraph Rd west (westbound)		46.4
VTA Side Streets (eastbound)		36.3
VTA Side Streets (westbound)		43.1
Wells Rd (northbound)		41.5
Wells Rd (southbound)		48.2
R9 - Retirement Home	2.FI	55.5
Briggs Rd (northbound)		0.0
Briggs Rd (southbound)		0.0
Edwards Ranch Rd (northbound)		13.2
Edwards Ranch Rd (southbound)		20.5
Olive Rd (north)		1.1
Olive Rd (south)		-6.4
SP Side Streets (eastbound)		0.0
SP Side Streets (westbound)		0.0
Telegraph Rd east (eastbound)		15.7
Telegraph Rd east (westbound)		11.9
Telegraph Rd west (eastbound)		51.6
Telegraph Rd west (westbound)		49.2
VTA Side Streets (eastbound)		38.3
VTA Side Streets (westbound)		43.7
Wells Rd (northbound)		43.3
Wells Rd (southbound)		48.8
R9 - Retirement Home	3.FI	56.8
Briggs Rd (northbound)		0.0
Briggs Rd (southbound)		0.0
Edwards Ranch Rd (northbound)		12.5
Edwards Ranch Rd (southbound)		19.9

Contribution Levels of the Receivers

Source name	Lane	Level L(Aeq1h) dB(A)
Olive Rd (north)		0.8
Olive Rd (south)		-6.7
SP Side Streets (eastbound)		0.0
SP Side Streets (westbound)		0.0
Telegraph Rd east (eastbound)		15.4
Telegraph Rd east (westbound)		11.6
Telegraph Rd west (eastbound)		53.0
Telegraph Rd west (westbound)		50.5
VTA Side Streets (eastbound)		39.7
VTA Side Streets (westbound)		45.0
Wells Rd (northbound)		44.8
Wells Rd (southbound)		49.8

Spectra of the Receivers

No	Name	Floor	Time	50	F-63	F-80	F-100	125	160	200	250	315	400	500	630	800	1	kH1	kH2	kH2	kH-2	kH3	kH4	kH5	kH-6	kH8	kH10	k
1	R4 - Briggs School	1.FI	L(Aec	17.0	26.0	32.0	35.0	37.0	38.0	39.0	38.0	35.0	31.0	31.0	33.0	35.0	37.0	38.0	38.0	37.0	36.0	34.0	34.0	31.0	29.0	25.0	20.0	
2	R5 - Residence	1.FI	L(Aec	23.0	30.0	35.0	38.0	40.0	41.0	42.0	42.0	41.0	41.0	43.0	44.0	46.0	46.0	47.0	45.0	42.0	40.0	37.0	34.0	32.0	28.0	25.0		
4	R7 - Residence	1.FI	L(Aec	22.0	30.0	35.0	38.0	40.0	41.0	41.0	37.0	32.0	27.0	27.0	29.0	30.0	32.0	33.0	35.0	36.0	37.0	38.0	34.0	29.0	30.0	26.0	22.0	
3	R6 - Residence	1.FI	L(Aec	27.0	34.0	40.0	43.0	45.0	46.0	47.0	46.0	43.0	40.0	40.0	41.0	42.0	44.0	44.0	46.0	45.0	45.0	44.0	39.0	35.0	35.0	32.0	27.0	
5	R8 - Residence	1.FI	L(Aec	26.0	35.0	41.0	44.0	46.0	47.0	48.0	47.0	45.0	41.0	42.0	45.0	47.0	48.0	48.0	47.0	45.0	45.0	42.0	39.0	38.0	35.0	30.0		
6	R9 - Retirement H	1.FI	L(Aec	22.0	31.0	37.0	40.0	42.0	43.0	44.0	44.0	40.0	36.0	36.0	38.0	39.0	41.0	42.0	42.0	41.0	41.0	40.0	38.0	35.0	34.0	30.0	25.0	
		3.FI	L(Aec	22.0	31.0	36.0	40.0	42.0	43.0	43.0	43.0	44.0	43.0	45.0	46.0	46.0	47.0	45.0	45.0	44.0	43.0	42.0	39.0	36.0	35.0	31.0	27.0	

MODEL OUTPUT FILES - ROAD NOISE (PROJECT)

Noise Emissions of Road Traffic

Station km	ADT Veh/24	Vehicles type	Traffic values			Control device	Constr. Speed km/h	Affect. veh. %	Road surface	Gradien Min / Ma %
			Vehicle name	day Veh/h	Speed km/h					
Edwards Ranch Rd (south) Traffic direction: In entry direction										
0+000	3960	Total	-	165	-	Stop sign	0.0	100.0	Average (of DGAC and PCC)	0.0
		Automobiles	-	57	41					
		Medium trucks	-	47	41					
		Heavy trucks	-	61	41					
		Buses	-	-	41					
		Motorcycles	-	-	41					
		Auxiliary Vehicle	-	-	41					
1+144	-									
Edwards Ranch Rd (north) Traffic direction: In entry direction										
0+000	3960	Total	-	165	-	none	-	-	Average (of DGAC and PCC)	0.0
		Automobiles	-	57	41					
		Medium trucks	-	47	41					
		Heavy trucks	-	61	41					
		Buses	-	-	41					
		Motorcycles	-	-	41					
		Auxiliary Vehicle	-	-	41					
1+138	-									
Telegraph Rd east (eastbound) Traffic direction: In entry direction										
0+000	6816	Total	-	284	-	Stop sign	0.0	100.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	268	81					
		Medium trucks	-	7	81					
		Heavy trucks	-	9	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
3+119	-									
Telegraph Rd east (westbound) Traffic direction: In entry direction										
0+000	6816	Total	-	284	-	none	-	-	PCC (Portland cement concrete)	0.0
		Automobiles	-	268	81					
		Medium trucks	-	7	81					
		Heavy trucks	-	9	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
3+118	-									
SP Side Streets (eastbound) Traffic direction: In entry direction										
0+000	192	Total	-	8	-	none	-	-	PCC (Portland cement concrete)	0.0
		Automobiles	-	3	81					
		Medium trucks	-	2	81					
		Heavy trucks	-	3	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
0+504	-									
SP Side Streets (westbound) Traffic direction: In entry direction										
0+000	192	Total	-	8	-	none	-	-	PCC (Portland cement concrete)	0.0
		Automobiles	-	3	81					
		Medium trucks	-	2	81					
		Heavy trucks	-	3	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
0+502	-									

Noise Emissions of Road Traffic

Station km	ADT Veh/24	Vehicles type	Traffic values			Control device	Constr. Speed km/h	Affect. veh. %	Road surface	Gradien Min / Ma %
			Vehicle name	day Veh/h	Speed km/h					
Briggs Rd (southbound) Traffic direction: In entry direction										
0+000	408	Total	-	17	-	Stop sign	0.0	100.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	6	41					
		Medium trucks	-	5	41					
		Heavy trucks	-	6	41					
		Buses	-	-	41					
		Motorcycles	-	-	41					
		Auxiliary Vehicle	-	-	41					
0+647	-									
Briggs Rd (northbound) Traffic direction: In entry direction										
0+000	408	Total	-	17	-	On ramp	0.0	100.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	6	41					
		Medium trucks	-	5	41					
		Heavy trucks	-	6	41					
		Buses	-	-	41					
		Motorcycles	-	-	41					
		Auxiliary Vehicle	-	-	41					
0+647	-									
Telegraph Rd west (westbound) Traffic direction: In entry direction										
0+000	9528	Total	-	397	-	Stop sign	0.0	100.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	305	81					
		Medium trucks	-	40	81					
		Heavy trucks	-	52	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
3+120	-									
Telegraph Rd west (eastbound) Traffic direction: In entry direction										
0+000	9528	Total	-	397	-	Traffic light	0.0	50.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	305	81					
		Medium trucks	-	40	81					
		Heavy trucks	-	52	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
3+118	-									
VTA Side Streets (westbound) Traffic direction: In entry direction										
0+000	264	Total	-	11	-	Traffic light	0.0	50.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	4	81					
		Medium trucks	-	3	81					
		Heavy trucks	-	4	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
0+935	-									
VTA Side Streets (eastbound) Traffic direction: In entry direction										
0+000	264	Total	-	11	-	none	-	-	PCC (Portland cement concrete)	0.0
		Automobiles	-	4	81					
		Medium trucks	-	3	81					
		Heavy trucks	-	4	81					
		Buses	-	-	81					
		Motorcycles	-	-	81					
		Auxiliary Vehicle	-	-	81					
0+934	-									

Noise Emissions of Road Traffic

Station km	ADT Veh/24	Vehicles type	Traffic values			Control device	Constr. Speed km/h	Affect. veh. %	Road surface	Gradient Min / Max %
			Vehicle name	day Veh/h	Speed km/h					
Wells Rd (southbound) Traffic direction: In entry direction										
0+000	3096	Total	-	129	-	Traffic light	0.0	50.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	44	73					
		Medium trucks	-	37	73					
		Heavy trucks	-	48	73					
		Buses	-	-	73					
		Motorcycles	-	-	73					
		Auxiliary Vehicle	-	-	73					
0+744	-									
Wells Rd (northbound) Traffic direction: In entry direction										
0+000	3096	Total	-	129	-	none	-	-	PCC (Portland cement concrete)	0.0
		Automobiles	-	44	73					
		Medium trucks	-	37	73					
		Heavy trucks	-	48	73					
		Buses	-	-	73					
		Motorcycles	-	-	73					
		Auxiliary Vehicle	-	-	73					
0+744	-									
Olive Rd (north) Traffic direction: In entry direction										
0+000	552	Total	-	23	-	Stop sign	0.0	100.0	PCC (Portland cement concrete)	0.0
		Automobiles	-	23	41					
		Medium trucks	-	-	41					
		Heavy trucks	-	-	41					
		Buses	-	-	41					
		Motorcycles	-	-	41					
		Auxiliary Vehicle	-	-	41					
0+773	-									
Olive Rd (south) Traffic direction: In entry direction										
0+000	552	Total	-	23	-	none	-	-	PCC (Portland cement concrete)	0.0
		Automobiles	-	23	41					
		Medium trucks	-	-	41					
		Heavy trucks	-	-	41					
		Buses	-	-	41					
		Motorcycles	-	-	41					
		Auxiliary Vehicle	-	-	41					
0+773	-									

Receiver List

No.	Receiver name	Coordinates		Building side	Floor	Height m	Limit L(Aeq1h) dB(A)	Level L(Aeq1h) dB(A)	Conflict L(Aeq1h) dB(A)
		X	Y						
1	R4 - Briggs School	306357.78	3800531.03		1.FI	1.50	-	53.5	-
2	R5 - Residence	304744.36	3799441.67		1.FI	1.50	-	57.7	-
3	R6 - Residence	303807.74	3798782.93		1.FI	1.50	-	61.3	-
4	R7 - Residence	303689.88	3798964.09		1.FI	1.50	-	54.8	-
5	R8 - Residence	301237.52	3797030.09		1.FI	1.50	-	63.4	-
6	R9 - Retirement Home	301019.62	3797015.88		1.FI	1.50	-	60.0	-
					2.FI	5.20	-	61.1	-
					3.FI	8.90	-	62.3	-

Contribution Levels of the Receivers

Source name	Lane	Level L(Aeq1h) dB(A)
R4 - Briggs School	1.FI	53.5
Briggs Rd (northbound)		45.8
Briggs Rd (southbound)		50.2
Edwards Ranch Rd (north)		20.3
Edwards Ranch Rd (south)		27.2
Olive Rd (north)		1.2
Olive Rd (south)		-6.3
SP Side Streets (eastbound)		43.9
SP Side Streets (westbound)		43.3
Telegraph Rd east (eastbound)		42.4
Telegraph Rd east (westbound)		41.5
Telegraph Rd west (eastbound)		21.7
Telegraph Rd west (westbound)		26.0
VTA Side Streets (eastbound)		0.0
VTA Side Streets (westbound)		0.0
Wells Rd (northbound)		0.0
Wells Rd (southbound)		0.0
R5 - Residence	1.FI	57.7
Briggs Rd (northbound)		21.4
Briggs Rd (southbound)		21.6
Edwards Ranch Rd (north)		28.5
Edwards Ranch Rd (south)		36.1
Olive Rd (north)		10.2
Olive Rd (south)		2.2
SP Side Streets (eastbound)		7.1
SP Side Streets (westbound)		7.5
Telegraph Rd east (eastbound)		54.7
Telegraph Rd east (westbound)		54.5
Telegraph Rd west (eastbound)		29.7
Telegraph Rd west (westbound)		34.7
VTA Side Streets (eastbound)		-0.2
VTA Side Streets (westbound)		6.2
Wells Rd (northbound)		13.3
Wells Rd (southbound)		19.5
R6 - Residence	1.FI	61.3
Briggs Rd (northbound)		16.6
Briggs Rd (southbound)		16.6
Edwards Ranch Rd (north)		46.9
Edwards Ranch Rd (south)		56.7
Olive Rd (north)		29.7
Olive Rd (south)		18.5
SP Side Streets (eastbound)		2.7
SP Side Streets (westbound)		2.7
Telegraph Rd east (eastbound)		56.4
Telegraph Rd east (westbound)		52.0
Telegraph Rd west (eastbound)		44.9
Telegraph Rd west (westbound)		53.0
VTA Side Streets (eastbound)		5.8
VTA Side Streets (westbound)		11.2
Wells Rd (northbound)		16.4
Wells Rd (southbound)		22.7
R7 - Residence	1.FI	54.8
Briggs Rd (northbound)		16.4
Briggs Rd (southbound)		16.5
Edwards Ranch Rd (north)		39.4
Edwards Ranch Rd (south)		49.9
Olive Rd (north)		31.2
Olive Rd (south)		22.1
SP Side Streets (eastbound)		2.7
SP Side Streets (westbound)		2.8
Telegraph Rd east (eastbound)		47.8
Telegraph Rd east (westbound)		42.0

Contribution Levels of the Receivers

Source name	Lane	Level L(Aeq1h) dB(A)
Telegraph Rd west (eastbound)		42.2
Telegraph Rd west (westbound)		50.0
VTA Side Streets (eastbound)		5.3
VTA Side Streets (westbound)		11.5
Wells Rd (northbound)		16.3
Wells Rd (southbound)		22.9
R8 - Residence	1.FI	63.4
Briggs Rd (northbound)		0.0
Briggs Rd (southbound)		0.0
Edwards Ranch Rd (north)		24.0
Edwards Ranch Rd (south)		30.3
Olive Rd (north)		2.7
Olive Rd (south)		-5.5
SP Side Streets (eastbound)		0.0
SP Side Streets (westbound)		0.0
Telegraph Rd east (eastbound)		20.0
Telegraph Rd east (westbound)		14.6
Telegraph Rd west (eastbound)		61.2
Telegraph Rd west (westbound)		57.9
VTA Side Streets (eastbound)		30.9
VTA Side Streets (westbound)		37.9
Wells Rd (northbound)		47.7
Wells Rd (southbound)		52.8
R9 - Retirement Home	1.FI	60.0
Briggs Rd (northbound)		0.0
Briggs Rd (southbound)		0.0
Edwards Ranch Rd (north)		21.1
Edwards Ranch Rd (south)		28.0
Olive Rd (north)		1.5
Olive Rd (south)		-6.0
SP Side Streets (eastbound)		0.0
SP Side Streets (westbound)		0.0
Telegraph Rd east (eastbound)		19.4
Telegraph Rd east (westbound)		14.1
Telegraph Rd west (eastbound)		56.0
Telegraph Rd west (westbound)		51.7
VTA Side Streets (eastbound)		42.1
VTA Side Streets (westbound)		49.0
Wells Rd (northbound)		48.3
Wells Rd (southbound)		54.7
R9 - Retirement Home	2.FI	61.1
Briggs Rd (northbound)		0.0
Briggs Rd (southbound)		0.0
Edwards Ranch Rd (north)		19.4
Edwards Ranch Rd (south)		26.7
Olive Rd (north)		1.1
Olive Rd (south)		-6.3
SP Side Streets (eastbound)		0.0
SP Side Streets (westbound)		0.0
Telegraph Rd east (eastbound)		19.0
Telegraph Rd east (westbound)		13.8
Telegraph Rd west (eastbound)		56.9
Telegraph Rd west (westbound)		53.5
VTA Side Streets (eastbound)		44.0
VTA Side Streets (westbound)		49.5
Wells Rd (northbound)		50.3
Wells Rd (southbound)		55.5
R9 - Retirement Home	3.FI	62.3
Briggs Rd (northbound)		0.0
Briggs Rd (southbound)		0.0
Edwards Ranch Rd (north)		18.7
Edwards Ranch Rd (south)		26.1

Contribution Levels of the Receivers

Source name	Lane	Level L(Aeq1h) dB(A)
Olive Rd (north)		0.8
Olive Rd (south)		-6.6
SP Side Streets (eastbound)		0.0
SP Side Streets (westbound)		0.0
Telegraph Rd east (eastbound)		18.8
Telegraph Rd east (westbound)		13.5
Telegraph Rd west (eastbound)		58.1
Telegraph Rd west (westbound)		54.5
VTA Side Streets (eastbound)		45.4
VTA Side Streets (westbound)		50.8
Wells Rd (northbound)		51.9
Wells Rd (southbound)		56.5

Spectra of the Receivers

No	Name	Floor	Time	50	F-63	F-80	F-100	125	160	200	250	315	400	500	630	800	1	kH1	kH2	kH2	kH-2	kH3	kH4	kH5	kH-6	kH8	kH10	k	
1	R4 - Briggs School	1.FI	L(Aec	21.0	30.0	36.0	39.0	41.0	43.0	43.0	43.0	39.0	35.0	35.0	37.0	39.0	41.0	42.0	42.0	41.0	40.0	39.0	39.0	35.0	33.0	30.0	25.0		
2	R5 - Residence	1.FI	L(Aec	25.0	33.0	38.0	41.0	43.0	44.0	45.0	45.0	44.0	43.0	43.0	44.0	46.0	48.0	47.0	48.0	46.0	44.0	43.0	40.0	37.0	35.0	32.0	28.0		
4	R7 - Residence	1.FI	L(Aec	25.0	34.0	40.0	43.0	45.0	46.0	46.0	42.0	37.0	31.0	32.0	33.0	35.0	37.0	38.0	39.0	41.0	42.0	43.0	40.0	34.0	36.0	32.0	27.0		
3	R6 - Residence	1.FI	L(Aec	30.0	39.0	44.0	48.0	50.0	51.0	52.0	50.0	47.0	43.0	42.0	43.0	45.0	47.0	48.0	49.0	49.0	49.0	49.0	49.0	44.0	40.0	40.0	37.0	32.0	
5	R8 - Residence	1.FI	L(Aec	30.0	40.0	46.0	49.0	51.0	52.0	53.0	52.0	49.0	45.0	46.0	48.0	51.0	52.0	52.0	51.0	50.0	51.0	50.0	48.0	45.0	44.0	40.0	35.0		
6	R9 - Retirement H	1.FI	L(Aec	27.0	37.0	43.0	46.0	48.0	50.0	50.0	50.0	46.0	42.0	42.0	43.0	45.0	47.0	47.0	48.0	47.0	47.0	46.0	45.0	41.0	40.0	36.0	31.0		
		3.FI	L(Aec	27.0	36.0	42.0	46.0	48.0	49.0	50.0	49.0	50.0	49.0	51.0	51.0	51.0	51.0	50.0	49.0	49.0	48.0	47.0	45.0	42.0	41.0	38.0	33.0		