

Appendix F

Noise Report

HELLMAN PROPERTIES, LLC
HELLMAN RANCH GAS PLANT PROJECT

DRAFT NOISE REPORT

JUNE 2019

PREPARED FOR:

HELLMAN PROPERTIES, LLC
SEAL BEACH, CALIFORNIA

PREPARED BY:

MRS ENVIRONMENTAL, INC.

Table of Contents

1.0	Introduction.....	1
2.0	Background Noise Levels	5
3.0	Gas Plant Operational Noise Levels	7
3.1	Microturbine Noise Levels.....	7
3.2	Noise Modeling Results	9
3.3	Acceptability Criteria	10
3.4	Noise Impacts.....	11

List of Table

Table 1	Major Gas Plant Equipment Specifications at the Project Site	1
Table 2	Background Noise Level Near the Project Site	5
Table 3	Microturbine Noise Levels	8
Table 4	CNEL Levels Baseline and With the Project	9
Table 5	Minimum Hour Levels	9

List of Figures

Figure 1	Regional Map	2
Figure 2	Project Area Map.....	3
Figure 3	Equipment Layout for the Proposed Gas Plant	4
Figure 4	Background Noise Monitoring Locations	6
Figure 5	Microturbines.....	7
Figure 6	Microturbine Octave Bands by Side.....	8

List of Appendices

Appendix A – SoundPlan Output Files

1.0 Introduction

Hellman Properties, LLC is proposing to construct and operate a one million standard cubic foot per day (MMscfd) gas plant at their Hellman Ranch Oil and Gas Production Facility (OGPF). This document provides a discussion of the potential noise impacts associated with the proposed gas plant. The document covers operational noise levels.

The existing Hellman Ranch OGPF site is located east of the San Gabriel River, and north of Pacific Coast Highway in the City of Seal Beach. Seal Beach is located in the northwest portion of the County of Orange. A "Regional Map" is provided as Figure 1. Hellman Properties, LLC owns and operates the OGPF on the Hellman Ranch in Seal Beach, California. A project area map is provided in Figure 2. This facility has been in operation since the 1930's and consists of over 60 wells, oil and gas pipelines, offices, storage facilities, crude oil truck loading facilities, and a crude oil tank farm.

The proposed gas plant has been designed with capacity to allow other users that currently process their gas at the Joint Venture facility to process their gas at the proposed gas plant. Existing pipelines are in place from the current gas plant site to deliver other gas to the proposed gas plant for processing. The layout of the major pieces of equipment for the proposed gas plant is provided in Figure 3 and the equipment specifications are listed in Table 1.

Table 1 Major Gas Plant Equipment Specifications at the Project Site

Equipment	Quantity	Design Size	Noise Level At 50 feet dBA	Noise Source
Gas Scrubbers	2	1,000 mmscf/d	-	-
Main Gas Compressors	2 ^a	1,000 mmscf/d	71	Com-Pac Systems, Inc.-Manufacture Estimate (85 dBA @10 feet)
Recycle Compressors	2 ^a	420 mmscf/d	71	Com-Pac Systems, Inc.-Manufacture Estimate (85 dBA @10 feet)
Pressure Swing Absorption Unit	1	1,000 mmscf/d	61	Quadrogen Power Systems, Inc.-Manufacture Data (85 dBA @ 3 feet)
Microturbines	5 ^b	1,000 kW output	63.6-76.1	In-field measurements
Absorption Chiller	1	859 MBtu/hr	62	An Introduction to Sound Level Data for Mechanical and Electrical Equipment
Air-Chilled Heat Exchangers	1	859 MBtu/hr	64	An Introduction to Sound Level Data for Mechanical and Electrical Equipment
Main Gas Compressor Discharge Heat Exchangers	2 ^a	657.6 MBtu/hr	-	-
Recycle Gas Compressor Discharge Heat Exchangers	2 ^a	201.4 MBtu/hr	-	-
Switch Gear	1	NA	-	-
Transformers	2	1,500 KVA	-	-

a. One is a backup for use during downtime on the main unit.

b. Each microturbine unit has a design capacity of 200 kW.

c. Sales gas compressor would be located offsite at the SoCal Gas injection point (see Figure 2).

MBtu/hr – thousand British thermal units per hour. mmscf/d – million standard cubic feet per day.

KVA– kilo-volt-ampere, kW– kilowatts

Figure 1 Regional Map

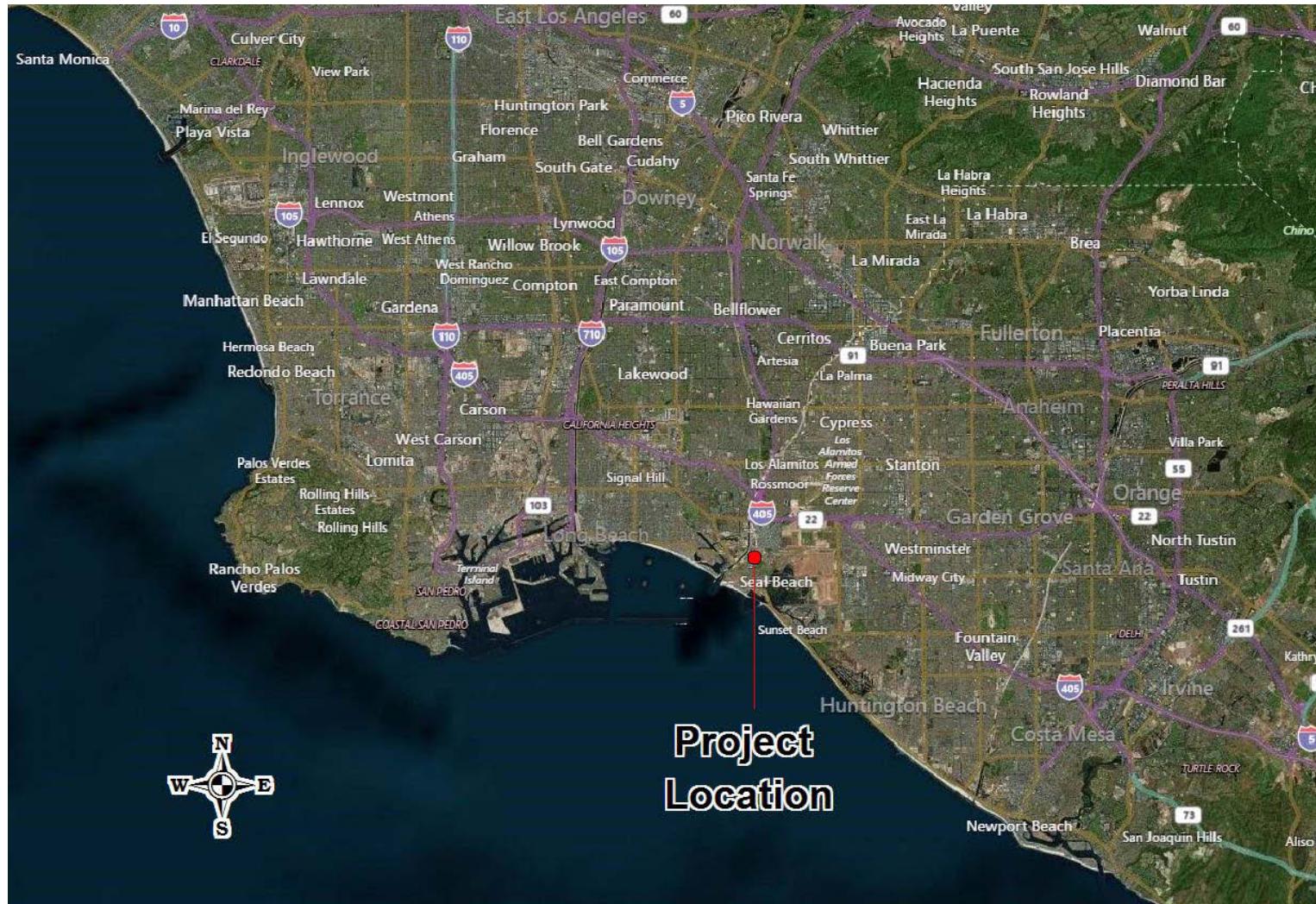
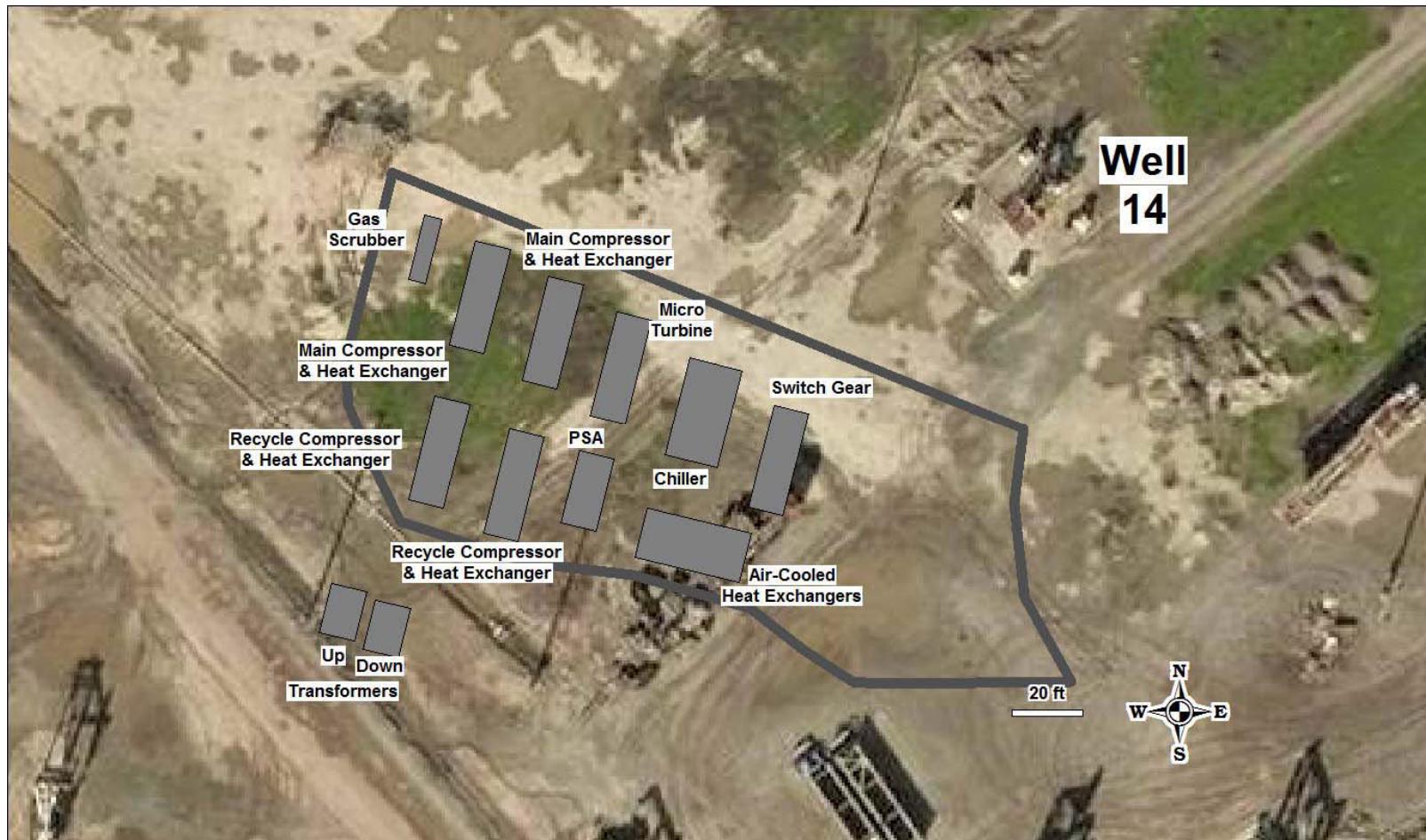


Figure 2 Project Area Map



Figure 3 Equipment Layout for the Proposed Gas Plant



2.0 Background Noise Levels

Background noise levels were monitored at four different locations as shown in Figure 4 on February 25, 2019. Noise levels were monitored during the daytime, evening and at night for periods of 30 minutes at each location. The results of the noise monitoring are shown in Table 2. The primary contributors to the noise levels were the power plant noise, occasional helicopters and airplanes, and frog noises in the evening and nighttime.

Frog noises dominated the noise levels at the location 2, 3 and 4 during the evening and nighttime as the recent rains and availability of water may have substantially increased the frog activity. Monitoring during dryer periods may produce a reduction in the amount of frog noise and reduce the evening and nighttime and community noise levels. However, the noise levels monitored at Location 4, along the west side of the project site, during the daytime is representative of the noise characteristics of the area as it was dominated by the power plant noise. Nighttime noise levels, without the presence of frogs, would be dominated by the power plant located about 3,700 feet to the north of the project site. Estimates of the power plant contribution to background noise levels indicate that the 46.9 dBA background level measured at Location 2 during the daytime is almost due entirely to the power plant, which would therefore be similar to the noise levels that would be experienced in the evening and at night without the frogs. Similar levels are estimated for the other locations based on distances from the power plant to estimate a CNEL without frog noises and to estimate the noise levels during periods when the frogs are not active, which would have lower noise levels during the evening and night. The CNEL levels estimated without the frog noises, which may occur at some periods during the year, are also shown in Table 2.

Table 2 Background Noise Level Near the Project Site

Location	Zoning	Daytime Leq, dBA	Evening Leq, dBA	Nighttime Leq, dBA	CNEL, dBA	CNEL, Estimated without Frog Noises, dBA
Location 1: Entrance to Gum Grove Park	Residential Low Density-9 (RLD-9)	50.0	52.2	47.6	55.2	54.6
Location 2: Hellman Ranch Trail at Po-Koo Path	Residential Low Density-9 (RLD-9)	46.9	53.6	51.1	57.8	53.6
Location 3: End of Aldolfo Lopez Drive near Hellman Entrance gate	Light Manufacturing (LM)	49.7	63.3	61.0	67.5	55.8
Location 4: West Side of Site near San Gabriel River	Oil Extraction (OE)	53.2	63.3	61.0	67.5	57.7

Figure 4 Background Noise Monitoring Locations



3.0 Gas Plant Operational Noise Levels

Equipment associated with operation of the project equipment is shown in Table 1. Equipment noise levels as estimated by manufacturers or other noise literature were used in the noise model SoundPlan[®] to estimate the noise levels at receptors located along the edge of the facility at the nearest residential areas and along the parkways. Noise levels from the microturbines were estimated based on in-field noise monitoring of the microturbines currently operating at the facility.

3.1 Microturbine Noise Levels

The microturbines noise levels were monitored using an operating unit during source testing. The noise monitoring was conducted using a Larson Davis SoundExpert XT Type 1 noise meter. During testing, three turbines operating within an enclosure. See Figure 5 for pictures of the turbine enclosure.

Figure 5 **Microturbines**



Noise was monitored in three locations around three of the turbine sides in order to identify noise variations as a function of radial location (the two short sides were assumed to produce equivalent noise levels). There was substantial radial distribution of noise levels due to the location and direction of exhaust piping and intake locations. The Figure 5 “exhaust side” shows the three exhaust vents with “caps” positioned to direct the exhaust flows (and noise) to the exhaust side of the container. The three intake vents are also shown on the exhaust side.

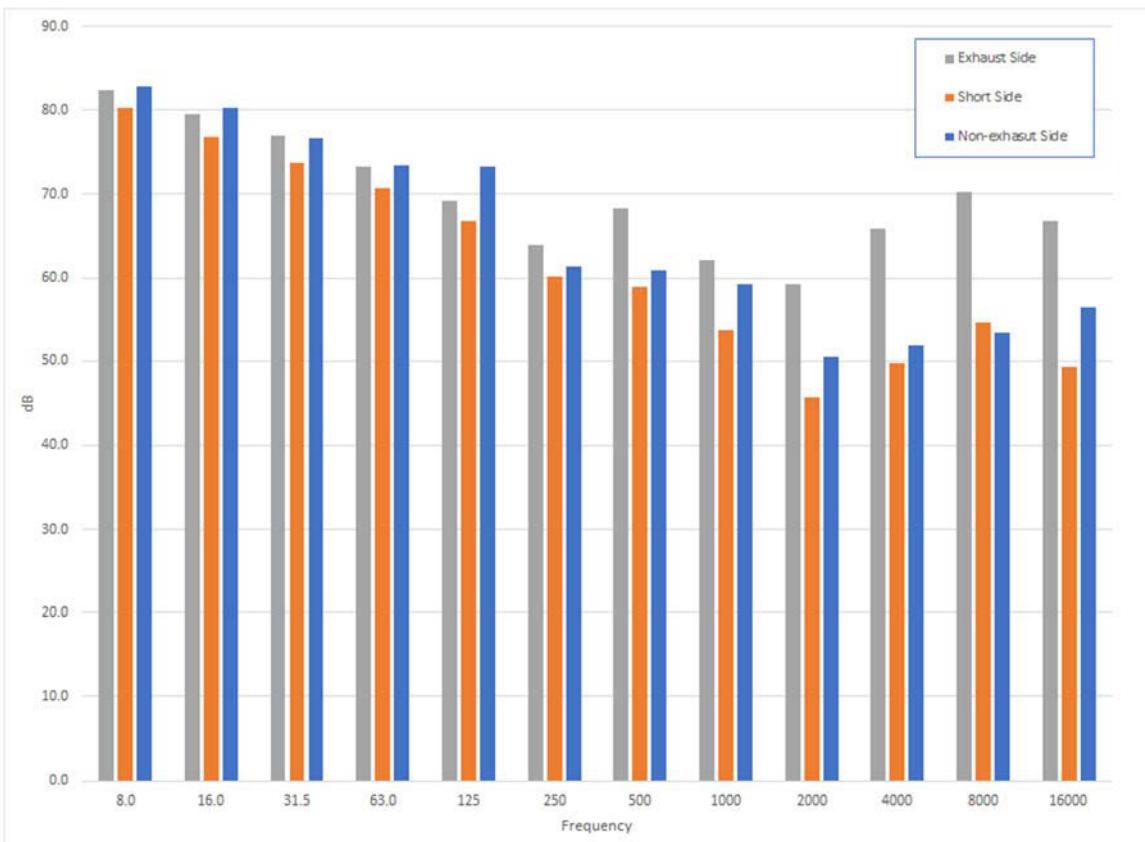
Noise as a function of location around the microturbines is shown in Table 3. In addition, as the configuration of the turbine may increase to 5 turbines, the noise levels with the microturbine arrangement with 5 turbines was estimated by increasing the noise energy by 66 percent. These estimated values are also shown in Table 3. The noise levels towards the exhaust side of the

turbines generated a higher noise level by more than 12 dBA than the short sides due to the exhaust and air intake additional noise sources.

Table 3 Microturbine Noise Levels

Location	Monitored Configuration (3 turbines) Leq, dBA at 50 feet	Project Configuration (5 turbines) Leq, dBA at 50 feet	Noise Sources
Non-exhaust Side	64.7	66.9	Turbines and transformers
Short Side	61.4	63.6	Turbines
Exhaust Side	73.9	76.1	Turbines, exhaust and air intakes

Figure 6 shows the octave band distribution for the three different sides of the microturbine. Note that the exhaust and air inlet sides produce greater noise levels in the higher frequency bands than the other sides.

Figure 6 Microturbine Octave Bands by Side

Note: For the three turbine configuration, dB linear scale.

3.2 Noise Modeling Results

Noise levels of the microturbines and the other equipment (listed in Table 1) were utilized in the SoundPlan[©] modeling software to estimate noise levels at the different receptors. The SoundPlan[©] modeling software is a program that takes in to account terrain, ground attenuation effects, buildings, wind, octave band attenuation effects and a range of characteristics to estimate the noise levels.

Equipment is assumed to operate continuously 24 hours per day, 7 days per week. The maximum microturbine noise level was used from the exhaust outlet side. Baseline noise levels as estimated without frog noises was used to be conservative.

Noise levels are accessed for both the CNEL and the minimum nighttime hour to ensure that for the average 24-hour noise levels and the quietest baseline hour, the noise levels are acceptable. The CNEL and the minimum hour are shown in Table 4 and 5.

Table 4 CNEL Levels Baseline and With the Project

Location	Baseline CNEL, dBA	Project CNEL, dBA	Combined CNEL, Baseline + Project, dBA	CNEL Increase, dBA
Location 1: Entrance to Gum Grove Park	54.6	51.4	56.3	1.7
Location 2: Hellman Ranch Trail at Po-Koo path	53.6	49.3	55.0	1.4
Location 3: End of Aldolfo Lopez Drive near Hellman Entrance gate	55.8	50.4	56.9	1.1
Location 4: West Side of Site near San Gabriel River	57.7	54.9	59.5	1.8

Note: Baseline values estimated without Frog Noises

Table 5 Minimum Hour Noise Levels

Location	Baseline Minimum Hour, Estimated without Frog Noises, dBA	Project Peak Hour, dBA	Combined Minimum Hour Baseline + Project, dBA	Minimum Hour Increase, dBA
Location 1: Entrance to Gum Grove Park	47.6	44.7	49.4	1.8
Location 2: Hellman Ranch Trail at Po-Koo path	46.9	42.7	48.3	1.4
Location 3: End of Aldolfo Lopez Drive near Hellman Entrance gate	49.0	43.7	50.1	1.1
Location 4: West Side of Site near San Gabriel River	50.7	48.3	52.7	2.0

3.3 Acceptability Criteria

The City of Seal Beach has established guidelines for acceptable community noise levels that are based upon the CNEL rating scale to ensure that noise exposure is considered in any development. CNEL-based standards apply to noise sources whose noise generation is preempted from local control (such as from on-road vehicles, trains, airplanes, etc.) and are used to make land use decisions as to the suitability of a given site for its intended use. These CNEL-based standards are articulated in the Noise Element of the General Plan.

Noise compatibility guidelines indicate that an exterior noise level of 60 dB CNEL is considered to be a “normally acceptable” noise level for single family, duplex and mobile homes involving normal conventional construction, without any special noise insulation requirements. Exterior noise levels up to 65 dB CNEL are typically considered “conditionally acceptable”, and residential construction should only occur after a detailed analysis of the noise reduction requirements is made and needed noise attenuation features are included in the project design. An interior CNEL of 45 dB is mandated by the State of California Noise Insulation Standards (CCR, Title 24, Part 6, Section T25-28) for multiple family dwellings and hotel and motel rooms.

The City of Seal Beach limits construction activities to between the hours of 7:00 a.m. and 8:00 p.m., Mondays through Friday, and the hours of 8:00 a.m. and 8:00 p.m. on Saturday and never on Sundays or city-observed federal holidays. Construction activities that occur during allowable hours are exempt from compliance with numerical noise standards.

Noise Ordinance

Planning standards generally apply to land use decisions made in response to noise sources preempted from local control such as motor vehicles, aircraft, etc. Noises from “stationary” sources are amenable to regulation through the City’s Municipal Code. Chapter 7.15 of the City’s code governs noise from one property crossing the property line of an adjacent property. The City’s noise ordinance limits are stated in terms of a 30-minute limit with allowable deviations from this 50th percentile standard. The louder the level becomes, the shorter the time becomes that it is allowed to occur. For example, the L50 is the level exceeded 50% of the measurement period of thirty minutes in an hour. The larger the deviation, the shorter the allowed duration up to a never-to exceed 20 dB increase above the 50th percentile standard.

The applicable Seal Beach requirement is a function of the time of day with a L50 daytime standard of 55 dB and L50 nighttime of 50 dB for residential properties (Zone 1) as follows:

- 55 dB (30 minutes) 7:00 a.m. - 10:00 p.m.
- 50 dB (30 minutes) 10:00 p.m. - 7:00 a.m.

For commercial properties (zone 2), the following apply:

- 65 dB (30 minutes) anytime.

For industrial properties (zone 3), the following apply:

- 70 dB (30 minutes) anytime.

Noise shall not exceed the following deviations from the above standards:

- (a) For a cumulative period of more than thirty (30) minutes in any hour;
- (b) Plus 5 dB for a cumulative period of more than fifteen (15) minutes in any hour;
- (c) Plus 10 dB for a cumulative period of more than five (5) minutes in any hour;
- (d) Plus 15 dB for a cumulative period of more than one (1) minute in any hour; or
- (e) Plus 20 dB for any period of time.

In areas where residential uses abut commercial or recreational activities, noise impacts may be perceived as intrusive, especially during noise sensitive quiet hours, even if the noise levels are below the municipal code. This is due to the potential for quiet periods during the nighttime and, with an increase in noise levels above a certain amount, the noise may be considered intrusive even if the code is not exceeded. Impacts may therefore be significant if they create either a substantial permanent or temporary increase. The term "substantial" is not quantified in CEQA guidelines. In most environmental analyses, "substantial" is taken to mean a level that is clearly perceptible to humans. In practice, this is at least a +3 dB increase. Some agencies, such as Caltrans, require substantial increases to be +10 dB or more if noise standards are not exceeded by the increase. For purposes of this analysis, a +3 dB increase is considered a substantial increase.

3.4 Noise Impacts

As shown in Tables 4 and 5, the CNEL of the project plus the baseline levels would be below 60 dBA associated with the General Plan acceptability criteria and would therefore be less than significant.

For the minimum hour and compliance with the Municipal Code, the noise levels would be below 50 dBA during the nighttime at monitoring locations 1 and 2, which are both considered residential and subject to the Zone 1 requirements.

The other two locations produce noise levels above 50 dBA - location 3 (located at the End of Aldolfo Lopez Drive near Hellman Entrance gate) and location 4 (located at the West Side of the Hellman site near San Gabriel River). Location 4 is located along the San Gabriel River and does not have any residences or commercial/industrial properties located in proximity and would therefore be considered acceptable and noise impacts would be less than significant.

Location 3 is near the Seal Beach Animal Care Center and other commercial activities. As such this location would be subject to the Zone 2 requirements of the City's Municipal Code. Noise impacts at location 3 are well below the Zone 2 threshold noise level of 65 dBA and would therefore be acceptable and less than significant.

Increases in noise levels would range as high as 1.8 dBA for increases in the CNEL and up to 2.0 dBA for the nighttime noise levels. Both of these increases would be below a 3.0 dBA increase and would therefore be acceptable and less than significant.

Appendix A

SoundPlan[©] Output Files

SoundPlan Setup

Project description

Project title: Hellman Properties Gas Plant

Project No.:

Project engineer:

Customer:

Description:

Run description

Calculation type: Single Point Sound

Title: Hellman Points

Group:

Run file: RunFile.runx

Result number: 1

Local calculation (ThreadCount=4)

Calculation start: 5/2/2019 11:38:52 AM

Calculation end: 5/2/2019 11:38:57 AM

Calculation time: 00:02:031 [m:s:ms]

No. of points: 31

No. of calculated points: 31

Kernel version: SoundPLAN 8.1 (10/23/2018) - 32 bit

Run parameters

Reflection order:	1
Maximum reflection distance to receiver	200 m
Maximum reflection distance to source	50 m
Search radius	5000 m
Weighting:	dB(A)
Allowed tolerance (per individual source):	0.100 dB
Create ground effect areas from road surfaces:	Yes

Standards:

Industry: ISO 9613-2: 1996

Air absorption: ISO 9613-1

regular ground effect (chapter 7.3.1), for sources without a spectrum automatically alternative ground effect

Limitation of screening loss:

single/multiple 20.0 dB /25.0 dB

Side diffraction: Outdated method (side paths also around terrain)

Use Eqn (Abar=Dz-Max(Agr,0)) instead of Eqn (12) (Abar=Dz-Agr) for insertion loss

Environment:

Air pressure 1013.3 mbar

rel. humidity 70.0 %

Temperature 10.0 °C

Meteo. corr. C0(7-19h)[dB]=0.0; C0(19-22h)[dB]=0.0; C0(22-7h)[dB]=0.0;

Ignore Cmet for Lmax industry calculation: No

Parameter for screening: C2=20.0

Dissection parameters:

Distance to diameter factor 8

Minimal distance	1 m
Max. difference ground effect + diffraction	1.0 dB
Max. number of iterations	4
Attenuation	
Foliage:	ISO 9613-2
Built-up area:	ISO 9613-2
Industrial site:	ISO 9613-2
Assessment:	CNEL
Reflection of "own" facade is suppressed	

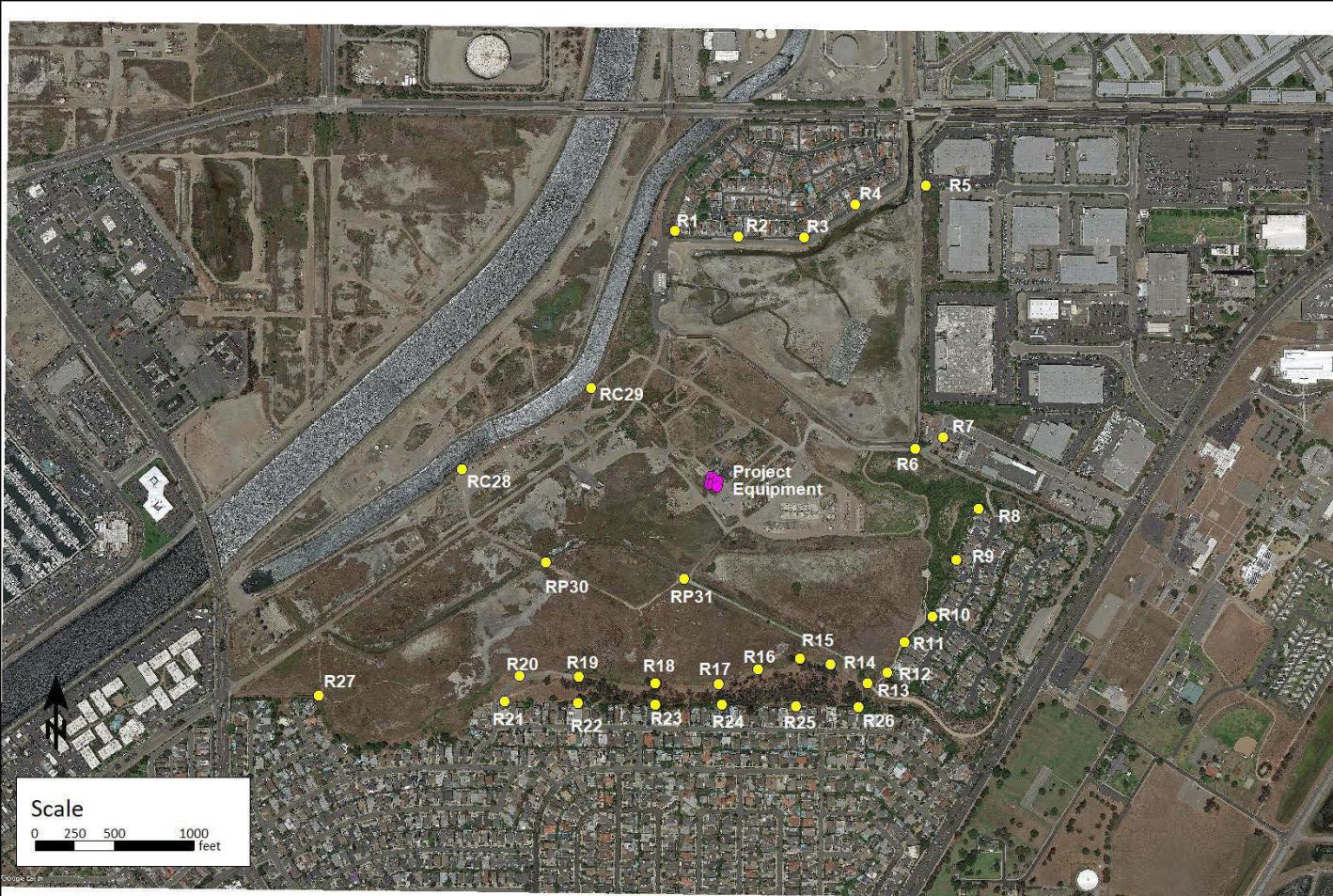
Geometry data

Hellman.sit	5/2/2019 11:38:42 AM
- contains:	
CalcArea.geo	5/2/2019 11:17:50 AM
Equipment.geo	5/2/2019 11:38:42 AM
Ground.geo	5/2/2019 11:28:58 AM
Receivers.geo	5/2/2019 11:17:50 AM
RDGM0002.dgm	5/1/2019 12:54:40 PM

SoundPlan Results

Name	CNEL dB(A)	Ld dB(A)	Le dB(A)	Ln dB(A)	Lmax dB(A)
R1	49.3	42.6	42.6	42.6	42.6
R2	48.1	41.4	41.4	41.4	41.4
R3	50.7	44.0	44.0	44.0	44.0
R4	47.6	40.9	40.9	40.9	40.9
R5	46.0	39.3	39.3	39.3	39.3
R6	51.7	45.0	45.0	45.0	45.0
R7	50.4	43.7	43.7	43.7	43.7
R8	49.1	42.4	42.4	42.4	42.4
R9	49.5	42.8	42.8	42.8	42.8
R10	49.4	42.7	42.7	42.7	42.7
R11	49.7	43.0	43.0	43.0	43.0
R12	49.3	42.7	42.7	42.7	42.7
R21	48.9	42.2	42.2	42.2	42.2
R22	50.4	43.7	43.7	43.7	43.7
R23	51.6	44.9	44.9	44.9	44.9
R24	51.9	45.2	45.2	45.2	45.2
R25	51.2	44.5	44.5	44.5	44.5
R26	49.2	42.6	42.6	42.6	42.6
R27	44.5	37.8	37.8	37.8	37.8
RC28	49.7	43.1	43.1	43.1	43.1
RC29	54.9	48.3	48.3	48.3	48.3
RP13	49.9	43.2	43.2	43.2	43.2
RP14	52.2	45.5	45.5	45.5	45.5
RP15	53.1	46.4	46.4	46.4	46.4
RP16	53.3	46.7	46.7	46.7	46.7
RP17	52.9	46.2	46.2	46.2	46.2
RP18	52.5	45.9	45.9	45.9	45.9
RP19	51.4	44.7	44.7	44.7	44.7
RP20	49.9	43.2	43.2	43.2	43.2
RP30	59.6	52.9	52.9	52.9	52.9
RP31	53.8	47.1	47.1	47.1	47.1

SoundPlan Layout



Hellman Properties Gas Plant
Hourly contribution level in dB(A) - Hellman Points

Name	Ld dB(A)	Ldn dB(A)	00-01 dB(A)	01-02 dB(A)	02-03 dB(A)	03-04 dB(A)	04-05 dB(A)	05-06 dB(A)	06-07 dB(A)	07-08 dB(A)	08-09 dB(A)	09-10 dB(A)	10-11 dB(A)	11-12 dB(A)	12-01 dB(A)	01-02 dB(A)	02-03 dB(A)	03-04 dB(A)	04-05 dB(A)	05-06 dB(A)	06-07 dB(A)	07-08 dB(A)	08-09 dB(A)	09-10 dB(A)	10-11 dB(A)	11-12 dB(A)
Name R1 Ld 42.6 dB(A) Le 42.6 dB(A) Ln 42.6 dB(A) Lmax 42.6 dB(A)																										
Main Gas Compressor	38.1	44.8	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
MicroTurbine	34.7	41.4	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7
Recycle Compressor	37.9	44.5	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9
PSA Unit	27.9	34.5	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9
Absorbtion Chiller	28.9	35.6	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9
ACHE	30.8	37.5	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.8
Name R2 Ld 41.4 dB(A) Le 41.4 dB(A) Ln 41.4 dB(A) Lmax 41.4 dB(A)																										
Main Gas Compressor	36.9	43.6	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9
MicroTurbine	33.4	40.1	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4
Recycle Compressor	36.7	43.4	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7
PSA Unit	26.7	33.4	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7
Absorbtion Chiller	27.6	34.3	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6
ACHE	29.8	36.5	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8
Name R3 Ld 44.0 dB(A) Le 44.0 dB(A) Ln 44.0 dB(A) Lmax 44.0 dB(A)																										
Main Gas Compressor	38.6	45.3	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6
MicroTurbine	39.1	45.8	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1
Recycle Compressor	38.3	45.0	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
PSA Unit	28.4	35.0	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4
Absorbtion Chiller	29.6	36.2	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6
ACHE	31.3	38.0	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3
Name R4 Ld 40.9 dB(A) Le 40.9 dB(A) Ln 40.9 dB(A) Lmax 40.9 dB(A)																										
Main Gas Compressor	36.4	43.1	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4
MicroTurbine	33.2	39.9	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
Recycle Compressor	36.2	42.8	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
PSA Unit	26.2	32.9	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2
Absorbtion Chiller	27.4	34.1	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4
ACHE	29.2	35.9	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2
Name R5 Ld 39.3 dB(A) Le 39.3 dB(A) Ln 39.3 dB(A) Lmax 39.3 dB(A)																										
Main Gas Compressor	34.8	41.5	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
MicroTurbine	31.4	38.0	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4
Recycle Compressor	34.6	41.3	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6

MRS Environmental Inc. 1306 Santa Barbara Street Santa Barbara, CA 93101 USA

Hellman Properties Gas Plant
Hourly contribution level in dB(A) - Hellman Points

Name	Ld dB(A)	Ldn dB(A)	00-01 AM dB(A)	01-02 AM dB(A)	02-03 AM dB(A)	03-04 AM dB(A)	04-05 AM dB(A)	05-06 AM dB(A)	06-07 AM dB(A)	07-08 AM dB(A)	08-09 AM dB(A)	09-10 AM dB(A)	10-11 AM dB(A)	11-12 AM dB(A)	12-01 PM dB(A)	01-02 PM dB(A)	02-03 PM dB(A)	03-04 PM dB(A)	04-05 PM dB(A)	05-06 PM dB(A)	06-07 PM dB(A)	07-08 PM dB(A)	08-09 PM dB(A)	09-10 PM dB(A)	10-11 PM dB(A)	11-12 PM dB(A)
PSA Unit	24.6	31.3	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6
Absorbtion Chiller	25.8	32.5	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8
ACHE	27.7	34.3	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7
Name R6 Ld 45.0 dB(A) Le 45.0 dB(A) Ln 45.0 dB(A) Lmax 45.0 dB(A)																										
Main Gas Compressor	40.3	47.0	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3
MicroTurbine	37.6	44.2	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6
Recycle Compressor	40.1	46.8	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1	40.1
PSA Unit	30.4	37.1	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4	30.4
Absorbtion Chiller	31.6	38.3	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6
ACHE	33.5	40.2	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
Name R7 Ld 43.7 dB(A) Le 43.7 dB(A) Ln 43.7 dB(A) Lmax 43.7 dB(A)																										
Main Gas Compressor	39.1	45.7	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1
MicroTurbine	36.2	42.8	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2	36.2
Recycle Compressor	39.0	45.6	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
PSA Unit	29.0	35.7	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
Absorbtion Chiller	30.2	36.9	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2
ACHE	32.2	38.8	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2
Name R8 Ld 42.4 dB(A) Le 42.4 dB(A) Ln 42.4 dB(A) Lmax 42.4 dB(A)																										
Main Gas Compressor	37.7	44.4	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7
MicroTurbine	34.7	41.4	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7
Recycle Compressor	37.7	44.4	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7
PSA Unit	27.9	34.5	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9
Absorbtion Chiller	29.0	35.6	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
ACHE	31.0	37.7	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
Name R9 Ld 42.8 dB(A) Le 42.8 dB(A) Ln 42.8 dB(A) Lmax 42.8 dB(A)																										
Main Gas Compressor	38.1	44.8	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
MicroTurbine	35.2	41.9	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2
Recycle Compressor	38.1	44.8	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
PSA Unit	28.3	35.0	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3
Absorbtion Chiller	29.4	36.1	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4
ACHE	31.5	38.1	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5

MRS Environmental Inc. 1306 Santa Barbara Street Santa Barbara, CA 93101 USA

Hellman Properties Gas Plant
Hourly contribution level in dB(A) - Hellman Points

Name	Ld dB(A)	Ldn dB(A)	00-01 AM dB(A)	01-02 AM dB(A)	02-03 AM dB(A)	03-04 AM dB(A)	04-05 AM dB(A)	05-06 AM dB(A)	06-07 AM dB(A)	07-08 AM dB(A)	08-09 AM dB(A)	09-10 AM dB(A)	10-11 AM dB(A)	11-12 AM dB(A)	12-01 PM dB(A)	01-02 PM dB(A)	02-03 PM dB(A)	03-04 PM dB(A)	04-05 PM dB(A)	05-06 PM dB(A)	06-07 PM dB(A)	07-08 PM dB(A)	08-09 PM dB(A)	09-10 PM dB(A)	10-11 PM dB(A)	11-12 PM dB(A)	
Name R10 Ld 42.7 dB(A) Le 42.7 dB(A) Ln 42.7 dB(A) Lmax 42.7 dB(A)																											
Main Gas Compressor	38.0	44.7	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	
MicroTurbine	34.9	41.6	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	
Recycle Compressor	38.1	44.8	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	
PSA Unit	28.2	34.9	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	
Absorbtion Chiller	29.3	36.0	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	
ACHE	31.3	38.0	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	
Name R11 Ld 43.0 dB(A) Le 43.0 dB(A) Ln 43.0 dB(A) Lmax 43.0 dB(A)																											
Main Gas Compressor	38.2	44.9	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	
MicroTurbine	35.3	42.0	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	
Recycle Compressor	38.4	45.0	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	
PSA Unit	28.5	35.2	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	
Absorbtion Chiller	29.6	36.2	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	
ACHE	31.7	38.4	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	
Name R12 Ld 42.7 dB(A) Le 42.7 dB(A) Ln 42.7 dB(A) Lmax 42.7 dB(A)																											
Main Gas Compressor	37.9	44.6	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	
MicroTurbine	34.8	41.5	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	
Recycle Compressor	38.1	44.7	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	
PSA Unit	28.2	34.8	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	
Absorbtion Chiller	29.2	35.9	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	
ACHE	31.3	38.0	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	
Name R21 Ld 42.2 dB(A) Le 42.2 dB(A) Ln 42.2 dB(A) Lmax 42.2 dB(A)																											
Main Gas Compressor	36.5	43.2	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	36.5	
MicroTurbine	37.4	44.0	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	
Recycle Compressor	36.7	43.4	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	
PSA Unit	26.7	33.3	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	
Absorbtion Chiller	27.5	34.1	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	
ACHE	29.7	36.3	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	
Name R22 Ld 43.7 dB(A) Le 43.7 dB(A) Ln 43.7 dB(A) Lmax 43.7 dB(A)																											
Main Gas Compressor	38.0	44.7	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	
MicroTurbine	39.0	45.7	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	
Recycle Compressor	38.3	44.9	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	

MRS Environmental Inc. 1306 Santa Barbara Street Santa Barbara, CA 93101 USA

Hellman Properties Gas Plant
Hourly contribution level in dB(A) - Hellman Points

Name	Ld dB(A)	Ldn dB(A)	00-01 AM dB(A)	01-02 AM dB(A)	02-03 AM dB(A)	03-04 AM dB(A)	04-05 AM dB(A)	05-06 AM dB(A)	06-07 AM dB(A)	07-08 AM dB(A)	08-09 AM dB(A)	09-10 AM dB(A)	10-11 AM dB(A)	11-12 AM dB(A)	12-01 PM dB(A)	01-02 PM dB(A)	02-03 PM dB(A)	03-04 PM dB(A)	04-05 PM dB(A)	05-06 PM dB(A)	06-07 PM dB(A)	07-08 PM dB(A)	08-09 PM dB(A)	09-10 PM dB(A)	10-11 PM dB(A)	11-12 PM dB(A)
PSA Unit	28.2	34.9	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2
Absorbtion Chiller	29.0	35.7	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
ACHE	31.2	37.9	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2
Name R23 Ld 44.9 dB(A) Le 44.9 dB(A) Ln 44.9 dB(A) Lmax 44.9 dB(A)																										
Main Gas Compressor	39.1	45.8	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1
MicroTurbine	40.2	46.9	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2
Recycle Compressor	39.4	46.1	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4
PSA Unit	29.4	36.1	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4
Absorbtion Chiller	30.2	36.9	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2
ACHE	32.5	39.2	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5
Name R24 Ld 45.2 dB(A) Le 45.2 dB(A) Ln 45.2 dB(A) Lmax 45.2 dB(A)																										
Main Gas Compressor	39.4	46.0	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4
MicroTurbine	40.6	47.2	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6
Recycle Compressor	39.7	46.3	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7
PSA Unit	29.7	36.4	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7
Absorbtion Chiller	30.5	37.2	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5
ACHE	32.8	39.5	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Name R25 Ld 44.5 dB(A) Le 44.5 dB(A) Ln 44.5 dB(A) Lmax 44.5 dB(A)																										
Main Gas Compressor	38.7	45.4	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7
MicroTurbine	39.9	46.5	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9
Recycle Compressor	38.9	45.6	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9
PSA Unit	29.0	35.7	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
Absorbtion Chiller	29.9	36.6	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9
ACHE	32.2	38.9	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2
Name R26 Ld 42.6 dB(A) Le 42.6 dB(A) Ln 42.6 dB(A) Lmax 42.6 dB(A)																										
Main Gas Compressor	37.6	44.2	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.6
MicroTurbine	35.7	42.4	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7
Recycle Compressor	37.8	44.4	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8
PSA Unit	27.8	34.5	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
Absorbtion Chiller	28.8	35.5	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8
ACHE	31.0	37.7	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0

MRS Environmental Inc. 1306 Santa Barbara Street Santa Barbara, CA 93101 USA

Hellman Properties Gas Plant
Hourly contribution level in dB(A) - Hellman Points

Name	Ld	Ldn	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	
	dB(A)	dB(A)	AM	PM																							
Name R27 Ld 37.8 dB(A) Le 37.8 dB(A) Ln 37.8 dB(A) Lmax 37.8 dB(A)																											
Main Gas Compressor	32.6	39.3	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	
MicroTurbine	31.9	38.6	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9
Recycle Compressor	32.7	39.4	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7	32.7
PSA Unit	22.7	29.3	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
Absorbtion Chiller	23.5	30.2	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
ACHE	25.6	32.3	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6
Name RC28 Ld 43.1 dB(A) Le 43.1 dB(A) Ln 43.1 dB(A) Lmax 43.1 dB(A)																											
Main Gas Compressor	38.5	45.1	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
MicroTurbine	35.1	41.8	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1
Recycle Compressor	38.5	45.2	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
PSA Unit	28.4	35.1	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4
Absorbtion Chiller	29.2	35.9	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2
ACHE	31.2	37.9	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2
Name RC29 Ld 48.3 dB(A) Le 48.3 dB(A) Ln 48.3 dB(A) Lmax 48.3 dB(A)																											
Main Gas Compressor	43.5	50.1	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5
MicroTurbine	41.8	48.4	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8
Recycle Compressor	43.3	49.9	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3
PSA Unit	33.1	39.8	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1
Absorbtion Chiller	34.0	40.7	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
ACHE	35.9	42.5	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9
Name RP13 Ld 43.2 dB(A) Le 43.2 dB(A) Ln 43.2 dB(A) Lmax 43.2 dB(A)																											
Main Gas Compressor	38.1	44.8	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
MicroTurbine	36.7	43.4	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7
Recycle Compressor	38.3	45.0	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
PSA Unit	28.4	35.1	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4
Absorbtion Chiller	29.4	36.1	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4
ACHE	31.6	38.2	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6
Name RP14 Ld 45.5 dB(A) Le 45.5 dB(A) Ln 45.5 dB(A) Lmax 45.5 dB(A)																											
Main Gas Compressor	39.6	46.3	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6
MicroTurbine	40.9	47.6	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9	40.9
Recycle Compressor	39.8	46.5	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8

MRS Environmental Inc. 1306 Santa Barbara Street Santa Barbara, CA 93101 USA

Hellman Properties Gas Plant
Hourly contribution level in dB(A) - Hellman Points

Name	Ld dB(A)	Ldn dB(A)	00-01 AM dB(A)	01-02 AM dB(A)	02-03 AM dB(A)	03-04 AM dB(A)	04-05 AM dB(A)	05-06 AM dB(A)	06-07 AM dB(A)	07-08 AM dB(A)	08-09 AM dB(A)	09-10 AM dB(A)	10-11 AM dB(A)	11-12 AM dB(A)	12-01 PM dB(A)	01-02 PM dB(A)	02-03 PM dB(A)	03-04 PM dB(A)	04-05 PM dB(A)	05-06 PM dB(A)	06-07 PM dB(A)	07-08 PM dB(A)	08-09 PM dB(A)	09-10 PM dB(A)	10-11 PM dB(A)	11-12 PM dB(A)
PSA Unit	29.9	36.6	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9
Absorbtion Chiller	30.9	37.6	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9
ACHE	33.2	39.8	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
Name RP15 Ld 46.4 dB(A) Le 46.4 dB(A) Ln 46.4 dB(A) Lmax 46.4 dB(A)																										
Main Gas Compressor	40.5	47.2	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5
MicroTurbine	41.9	48.6	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9
Recycle Compressor	40.8	47.5	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8
PSA Unit	30.9	37.6	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9
Absorbtion Chiller	31.8	38.5	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8
ACHE	34.1	40.8	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
Name RP16 Ld 46.7 dB(A) Le 46.7 dB(A) Ln 46.7 dB(A) Lmax 46.7 dB(A)																										
Main Gas Compressor	40.7	47.4	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7
MicroTurbine	42.1	48.8	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1
Recycle Compressor	41.0	47.7	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
PSA Unit	31.1	37.8	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1
Absorbtion Chiller	32.0	38.7	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0
ACHE	34.3	41.0	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3
Name RP17 Ld 46.2 dB(A) Le 46.2 dB(A) Ln 46.2 dB(A) Lmax 46.2 dB(A)																										
Main Gas Compressor	40.3	47.0	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3
MicroTurbine	41.6	48.3	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6
Recycle Compressor	40.6	47.3	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6
PSA Unit	30.7	37.3	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7	30.7
Absorbtion Chiller	31.5	38.2	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
ACHE	33.8	40.5	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
Name RP18 Ld 45.9 dB(A) Le 45.9 dB(A) Ln 45.9 dB(A) Lmax 45.9 dB(A)																										
Main Gas Compressor	40.0	46.7	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
MicroTurbine	41.2	47.9	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
Recycle Compressor	40.3	47.0	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3
PSA Unit	30.3	37.0	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3
Absorbtion Chiller	31.1	37.7	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1
ACHE	33.4	40.1	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4	33.4

MRS Environmental Inc. 1306 Santa Barbara Street Santa Barbara, CA 93101 USA

Hellman Properties Gas Plant
Hourly contribution level in dB(A) - Hellman Points

Name	Ld	Ldn	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	
	dB(A)																										
Name RP19 Ld 44.7 dB(A) Le 44.7 dB(A) Ln 44.7 dB(A) Lmax 44.7 dB(A)																											
Main Gas Compressor	38.9	45.6	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9		
MicroTurbine	40.0	46.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0		
Recycle Compressor	39.2	45.9	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2		
PSA Unit	29.1	35.8	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1		
Absorbtion Chiller	29.9	36.5	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9		
ACHE	32.1	38.8	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1		
Name RP20 Ld 43.2 dB(A) Le 43.2 dB(A) Ln 43.2 dB(A) Lmax 43.2 dB(A)																											
Main Gas Compressor	37.5	44.2	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5		
MicroTurbine	38.4	45.1	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4		
Recycle Compressor	37.7	44.4	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7		
PSA Unit	27.7	34.3	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.7		
Absorbtion Chiller	28.4	35.1	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4		
ACHE	30.6	37.3	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6		
Name RP30 Ld 52.9 dB(A) Le 52.9 dB(A) Ln 52.9 dB(A) Lmax 52.9 dB(A)																											
Main Gas Compressor	46.7	53.3	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7		
MicroTurbine	48.6	55.3	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6		
Recycle Compressor	47.4	54.0	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4		
PSA Unit	37.3	44.0	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3		
Absorbtion Chiller	37.8	44.5	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8	37.8		
ACHE	40.5	47.1	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5		
Name RP31 Ld 47.1 dB(A) Le 47.1 dB(A) Ln 47.1 dB(A) Lmax 47.1 dB(A)																											
Main Gas Compressor	41.3	48.0	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3		
MicroTurbine	42.5	49.2	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5		
Recycle Compressor	41.6	48.2	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6		
PSA Unit	31.4	38.1	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4		
Absorbtion Chiller	32.1	38.8	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1		
ACHE	34.3	41.0	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3		

MRS Environmental Inc. 1306 Santa Barbara Street Santa Barbara, CA 93101 USA

