

Third Quarter 2023 Community Air Monitoring Report, Chiquita Canyon Landfill

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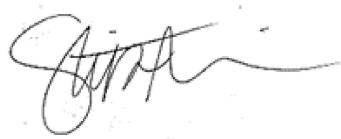
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This Third Quarter 2023 Community Air Monitoring Report for the Chiquita Canyon Landfill, located at 29201 Henry Mayo Drive, Castaic, California, was prepared and reviewed by the following:



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1.0 CHIQUITA CANYON AIR MONITORING SUMMARY

This Third Quarter 2023 Community Air Monitoring Report (Report) has been prepared by SCS Engineers (SCS) in collaboration with Chiquita Canyon Landfill (CCL or Site), the Los Angeles County Department of Public Health (DPH), and the Los Angeles County Department of Public Works (PW), in regard to implementation of the Community Air Monitoring Program (CAMP), dated 2019. The CAMP presents an overview of quarterly air monitoring reporting compiled from continuous air monitoring stations in the community surrounding the Site, and monthly discrete sampling at community air monitoring station locations during the reporting period.

The CAMP was prepared by SCS, in consultation with CCL, DPH and PW, in accordance with the 2019 Community Air Monitoring Plan (CAM Plan), which was prepared in order to identify locations, parameters, and procedures for implementation of continuous air monitoring in the community surrounding the Site. The CAMP was designed to incorporate the requirements of Condition 68 of CCL's Conditional Use Permit (CUP) issued by the County of Los Angeles (County).

As of October 2022, the CAMP is comprised of a network of twelve air monitoring stations (MS or Stations) with seven stations located throughout the community surrounding the Site (MS-06 through MS-12) and five stations located on-site (MS-01 through MS-05), around the Site perimeter (the Site perimeter air monitoring stations serve as a reference for any off-site exceedances that may be detected). The air monitoring stations continuously monitor particulate matter with an aerodynamic diameter of ten (10) micrometers or less (PM₁₀), particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}), and hydrogen sulfide (H₂S); as well as wind direction and wind speed. The CAMP was fully implemented in September 2022.

The purpose of this report is to comply with the quarterly reporting requirements outlined in the CAM Plan and Condition 68 of the CUP. This report includes the following components:

- DPH data evaluation of monthly reports and/or quarterly analysis and evaluation of potential health and safety impacts on nearby residents, schools, and centers of employment
- SCS determination of any exceedances of the applicable reporting thresholds
- SCS evaluation and recommendations for Program implementation

This section outlines the monitoring thresholds and provides additional detail for the analyses conducted during the reporting period.

1.1 MONITORING LOCATIONS

A map showing the location of the monitoring stations is included as **Figure 1**. As shown on **Figure 1**, MS-01 through MS-05 are located around the perimeter of the Site. MS-06 through MS-12 are located in the community surrounding the Site, and are the subject of this report.

1.2 CONTINUOUS MONITORING

Table 1 summarizes the air quality exposure levels or standards that are used as a basis for analyzing the continuous air monitoring data at the community stations, MS-06 through MS-12.

The recommended *reporting analysis thresholds* for each of the continuously monitored air pollutants are highlighted in **bold text** in **Table 1**. The air monitoring stations that are deployed around the Site and in the community have detection limits that are well below the recommended

notification levels (i.e., they can detect ambient concentration levels that are much lower than the threshold levels recommended below). Short-term fluctuations in the ambient concentration of the monitored air pollutants around the Site and in the community are expected and will be reflected in the data.

Table 1. Summary of Air Quality Standards for Selected Air Pollutants

Air Quality Standard		PM _{2.5}	PM ₁₀	H ₂ S
CAAQS	1-Hour Average	--	--	0.03 ppm
	24-Hour Average	--	50 µg/m ³	--
FEIR	24-Hour Average	2.5 µg/m³	2.5 µg/m³	--
SCAQMD	2-Hour Average	25 µg/m³		--

Bold Text – Reporting Threshold

It should be noted that the reporting analysis thresholds are limited to the off-site monitoring stations. This means that if the thresholds are triggered on any off-site monitoring station (MS-06 through MS-12), additional analysis will be required, including review of data collected at the on-site monitoring stations (MS-01 through MS-05) during the exceedance event.

The continuous monitoring data for the entire quarter is formatted into the time increments that match the reporting analysis thresholds listed in the table above, as is presented in Appendix A. Within Appendix A, please refer to **Appendix A, Table A-1** for the H₂S 1-hour exceedances, **Table A-2** for 24-hour PM_{2.5} and PM₁₀ exceedances, and **Table A-3** for 2-hour PM_{2.5} and PM₁₀ exceedances.

1.3 DISCRETE SAMPLING

On a monthly basis, a total of five air samples are collected at community monitoring stations. Three samples are collected in the community surrounding the Site, with two samples collected from either side of the landfill generally in line with the community monitor sampling locations for each month. The overall intent is to cover all monitoring stations within the surrounding community every quarter for the duration of the CAMP.

To achieve this goal, SCS has implemented the following monthly sampling rotation with three community monitoring locations grouped together with two landfill monitoring locations in line from either side of the landfill:

- Rotation 1:** Samples collected from northwest of the Landfill (MS-07, MS-08, and MS-12) with in line Landfill samples located at MS-04 and MS-03.
- Rotation 2:** Samples collected from northeast of the Landfill (MS-06, MS-09, and MS-10) with in line Landfill samples located at MS-01 and MS-02.
- Rotation 3:** Samples collected from northwest and southeast of the Landfill (MS-08, MS-11, and MS-12) with in line Landfill samples located at MS-04 and MS-05.

Samples are collected and analyzed for landfill gas (LFG) components listed in Table 1 of SCAQMD Rule 1150.1, the SCAQMD rule for monitoring emissions from landfills. Those chemicals are found in **Table 2** below.

Table 2. SCAQMD Rule 1150.1 Toxic Air Contaminant List

SCAQMD Rule 1150.1 Table 1 Constituents			
Benzene	1,1-Dichloroethane	Tetrachloroethylene	Trichloromethane
Benzyl chloride	1,2-Dichloroethane	Tetrachloromethane	Vinyl Chloride
Chlorobenzene	1,1-Dichloroethene	Toluene	Xylene
1,2-Dibromoethane	Dichloromethane	1,1,1-Trichloroethane	
Dichlorobenzene	Hydrogen Sulfide	Trichloroethylene	

For discrete sampling, reporting analysis thresholds chosen by DPH are the California Office of Health Hazard Assessment (OEHHA) Reference Exposure Levels (RELs) for Acute Hazard Index Target Organ Systems (Table 6.1 from the February 2015 Air Toxics Hot Spots Program Guidance Manual). By definition, an acute REL is an exposure that is not likely to cause adverse health effects in a human population, including sensitive subgroups, exposed to that concentration (in units of micrograms per cubic meter or $\mu\text{g}/\text{m}^3$) for the specified exposure duration on an intermittent basis.

2.0 QUARTERLY AIR MONITORING RESULTS

This section discusses the continuous monitoring and discrete sampling results for the reporting period.

2.1 CONTINUOUS MONITORING RESULTS

DPH has access to all continuous monitoring data recorded from the off-site monitors, which is reviewed routinely and on an as-needed basis if recorded values exceed the reporting thresholds in **Table 1**. If DPH observes reportable exceedances, DPH may request the on-site monitoring data (including wind direction and wind speed data), for the purposes of DPH's evaluations of reported exceedances. Upon request, SCS will provide DPH with the continuous monitoring data for all on-site monitors, for the time period of the exceedance plus one time increment prior to, and after, the exceedance start time. Any recommendations regarding the health and safety impact on nearby residents, schools and centers of employment or evaluation(s) of potential sources of air pollutants impacting ambient air quality made by DPH are included in this report.

During the reporting period, there were 61 exceedance events for H_2S over a 1-hour averaging period. There were 3 exceedance events for PM_{10} and 0 exceedances for $\text{PM}_{2.5}$ over a 2-hour averaging period. There were 7 exceedance events for PM_{10} and 5 exceedances for $\text{PM}_{2.5}$ over a 24-hour averaging period. These exceedances occurred at off-site stations where station(s) exceeded one or more reporting thresholds. Please note that one or more monitors can have an exceedance detection during a single exceedance event, based on the stations' proximity to other stations, wind direction, and wind speed. A summary of each exceedance that occurred at the off-site monitoring stations during the reporting period can be found in **Appendix A**.

SCS has provided DPH with corresponding on-site data for periods where the off-site monitoring stations recorded an exceedance of the thresholds listed in **Table 1** above. The data was shared in

emails sent on August 15, September 15, and October 16, 2023. As of the date of this report, SCS have not received any comments from DPH regarding the on-site continuous monitoring data.

Please note, due to the size of the full dataset and in order to reduce the amount of physical pages of this quarterly report, a link to the 1-hour data for the continuous monitoring at the off-site locations can be found in **Appendix B**. Since the continuous monitoring data presented in this report includes only a summary of exceedance events, the complete 1-hour data set is included as a separate, linked attachment.

2.2 DISCRETE SAMPLING RESULTS

During the Third Quarter 2023, monthly samples were taken in July, August, and September 2023. A full description of the detected constituents along with their concentrations was included in the monthly reports which were submitted to DPH, PW, and the Site on August 14, September 15, and October 13, 2023 respectively. During the reporting period, there were zero (0) community monitoring stations that had exceedances of discrete sampling reporting thresholds, per **Appendix C, Table C-1**.

As of the date of this report, SCS have not received any comments from DPH regarding the off-site discrete sampling data.

The results of the monthly discrete sampling events conducted in July, August, and September are found in **Appendix C. Appendix C, Table C-1** includes the discrete sampling reporting thresholds. Based on the reporting thresholds outlined in Table C-1, there were no exceedances recorded in the third quarter sampling events. The complete laboratory analytical reports are also included within **Appendix C**.

The laboratory results were analyzed in conjunction with the continuous air monitoring data collected during the sampling event. The 1-hour continuous monitoring data collected at each monitoring station that was used as part of the discrete sampling analysis is located in **Appendix B**. Please note that only the off-site discrete sampling events and the associated 1-hour monitoring data are included in this quarterly report.

3.0 SCS CAMP RECOMMENDATIONS

This section describes any recommendations by SCS to the CAMP to improve the overall efficiency of the air monitoring program. During the Third Quarter, there were no new recommendations for the program. All quarterly recommendations/observations will be compiled and addressed in the annual Community Air Monitoring Report.

Figure 1
Chiquita Canyon CAMP Map of Monitoring Stations

