WASTE MANAGEMENT

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1. ☐ RECEIVED IN ENFORCEMENT: 10/29/2020

October 26, 2020

Director of Compliance and Enforcement
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105
Attn: Title V Reports

Director of the Air Division
USEPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105
Attn: Air-3

SUBJECT: Combined Title V Semi-Annual and Partial 8-34 Annual Report 40 CFR 63 Subpart AAAA Semi-Annual Report
Guadalupe Recycling & Disposal Facility
15999 Guadalupe Mines Road, San Jose, CA 95120
Facility Number A3294

Dear Sir or Madam:

The Guadalupe Rubbish Disposal Co., Inc. (GRDC) is pleased to submit the attached Combined Title V Semi-Annual and Partial 8-34 Annual Report for the period of April 1, 2020 through September 30, 2020 to the Bay Area Air Quality Management District (BAAQMD) and the United States Environmental Protection Agency (USEPA), Region IX. As required by 40 Code of Federal Regulations (CFR) Part 63 Subpart AAAA, the Semi-Annual Startup, Shutdown and Malfunction (SSM) Report is also enclosed. The Combined Title V Semi-Annual and Partial 8-34 Annual Report satisfies the requirements of the Title V Permit listed in Title V Permit Condition Number 6188 Part 22 and Standard Condition I.F.

Based on information and belief formed after reasonable inquiry, I certify under penalty of law that the statements included in this report are true, accurate, and complete.

Sincerely,
Guadalupe Rubbish Disposal Co., Inc.

Enrique Perez
District Manager

Attachments:
Combined Title V Semi-Annual and Partial 8-34 Annual Report

Combined Title V Semi-Annual and Partial 8-34 Annual Report

For the Guadalupe Rubbish Disposal Co., Inc.
15999 Guadalupe Mines Road
San Jose, California 95120
Facility Number A3294

April 1, 2020 through September 30, 2020

Submitted on:
October 29, 2020

Prepared for
Guadalupe Recycling & Disposal Facility
15999 Guadalupe Mines Road
San Jose, California 95120

For Submittal to:
The Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

And

The United States Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Prepared by

WASTE MANAGEMENT

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1 INTRODUCTION

1.1 Purpose

This document is a Combined Semi-Annual Title V and Partial 8-34 Annual Report for the Guadalupe Recycling & Disposal Facility (GRDF) pursuant to Title V Permit Standard Condition 1.F and Condition Number 6188 Part 22. This report satisfies the requirements of Bay Area Air Quality Management District's (BAAQMD) Regulation 8, Rule 34, Section 411 and Title 40 Code of Federal Regulations (CFR) Part 60 Subpart WWW, New Source Performance Standards (NSPS) for municipal solid waste (MSW) landfills. This Combined Report meets the requirements of Title V Standard Condition 1.F, BAAQMD Rule 8-34-411 and 40 CFR §60.757(f) and covers compliance activities conducted from April 1, 2020 through September 30, 2020. This Combined Report also includes the Semi-Annual Report of Start-up, Shutdown, and Malfunction (SSM) Plan activities pursuant to National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, Subpart AAAA for Landfills.

Section 2 of this Combined Report contains the elements required to satisfy both BAAQMD 8-34-411 and 40 CFR §60.757(f). A Performance Test Report for the A-9 Flare that meets the requirements of both BAAQMD Rule 8-34-413 and 40 CFR §60.758(g) was submitted to the BAAQMD on June 24, 2020, and results of the test are included in Appendix N of this Combined Report. Section 3 of this Combined Report includes a discussion of the data from the most recent Performance Test on A-9 Flare, which was conducted on April 29, 2020, in compliance with BAAQMD Rule 8-34-412 and Title V Permit Condition Number 6188, Part 14. A Performance Test Report for the A-14 Flare that meets the requirements of both BAAQMD Rule 8-34-413 and 40 CFR §60.758(g) was submitted to the BAAQMD on April 13, 2020, and results of the test are included in Appendix N of this Combined Report. Section 3 of this Combined Report includes a discussion of the data from the most recent Performance Test on A-14 Flare, which was conducted on February 26, 2020, in compliance with BAAQMD Rule 8-34-412 and Title V Permit Condition Number 6188, Part 14. Section 4 of this Combined Report includes the Semi-Annual Report of the SSM Plan activities pursuant to the NESHAP, 40 CFR Part 63, Subpart AAAA for Landfills.

1.2 Record Keeping and Reporting

Records are maintained and available for inspection in accordance with BAAQMD Rule 8-34-501.12 and 40 CFR §60.758. The primary location for records storage is at the GRDF. Records are maintained at this location for a minimum of five years.

2 COMBINED MONITORING REPORT

In accordance with Title V Permit Standard Condition 1.F, BAAQMD Rule 8-34-411 and §60.757(f) in the NSPS, this report is a Combined Semi-Annual Title V Report and Partial 8-34 Annual Report that is required to be submitted by the GRDF. The report contains monitoring data for the operation of the landfill gas collection and control system (GCCS). The operational records have been reviewed and summarized. The timeframe included in this report is April 1, 2020 through September 30, 2020. The following table lists the rules and regulations that are required to be included in this Combined Report.

Table 2-1 Combined Report Requirements

RULE	REQUIREMENT	LOCATION IN REPORT
8-34-501.1 §60.757(f)(4)	All collection system downtime, including individual well shutdown times and the reason for the shutdown.	Section 2.1, Appendices B, D, & E
8-34-501.2 §60.757(f)(3)	All emission control system downtime and the reason for the shutdown.	Section 2.2, Appendices B & E
8-34-501.3, 8-34-507, §60.757(f)(1)	Continuous temperature for all operating flares and any enclosed combustor subject to Section 8-34-507.	Section 2.3, Appendix F
8-34-501.4, 8-34-505, 8-34-510	Testing performed to satisfy any of the requirements of this rule.	Section 2.4 & 2.10 Appendices G & J
8-34-501.5	Monthly landfill gas flow (LFG) rates and well concentration readings for facilities subject to 8-34-404.	Section 2.5, 2.11 Appendix L
8-34-501.6, 8-34-503, 8-34-506, §60.757(f)(5)	For operations subject to Section 8-34-503 and 8-34-506, records of all monitoring dates, leaks in excess of the limits in Section 8-34-301.2 or 8-34-303 that are discovered by the operator, including the location of the leak, leak concentration in parts per million by volume (ppmv), date of discovery, the action taken to repair the leak, date of the repair, date of any required re-monitoring, and the re-monitored concentration in ppmv.	Section 2.6 & 2.7, Appendix H
8-34-501.7	Annual waste acceptance rate and current amount of waste in-place.	Section 2.8 Appendix I
8-34-501.8	Records of the nature, location, amount, and date of deposition of non-degradable wastes, for any landfill areas excluded from the collection system requirement as documented in the GCCS Design Plan.	Section 2.9

RULE	REQUIREMENT	LOCATION IN REPORT
8-34-501.9, 8-34-505, §60.757(f)(1)	For operations subject to Section 8-34-505, records of all monitoring dates and any excesses of the limits stated in Section 8-34-305 that are discovered by the operator, including well identification number, the measured excess, the action taken to repair the excess, and the date of repair.	Section 2.10, 2.10.1, Appendices J & K
8-34-501.10, 8-34-508, §60.757(f)(1)	Continuous gas flow rate records for any site subject to Section 8-34-508.	Section 2.11, Appendices F and L
8-34-501.11, 8-34-509	For operations subject to Section 8-34-509, records or key emission control system operating parameters.	Section 2.2.2
8-34-501.12	The records required above shall be made available and retained for a period of five years.	Section 1.2
§60.757(f)(2)	Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756.	Section 2.2.1
§60.757(f)(6)	The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), (c)(4) of §60.755.	Section 2.12
§60.10 (d)(5)(i)	Startup, Shutdown, Malfunction Events	Section 4.0, Appendices D & E

2.1 Collection System Operation (BAAQMD 8-34-501.1 & §60.757(f)(4))

Appendix A contains a current map of the GRDF's existing GCCS. Section 2.1.1 includes the GCCS downtime for the reporting period. The information contained in Section 2.1.2 includes the wellfield SSM information.

2.1.1 Collection System Downtime

During the period covered in this report, the GCCS was not shut down for more than five days on any one occasion. Downtime for partial 2020 calendar year from January 1, 2020 through September 30, 2020, was 45.5 hours, out of an allowable 240 hours per year. The total downtime for the reporting period of April 1, 2020 through September 30, 2020 was 39.7 hours.

Appendix B contains the GCCS Downtime Report which lists dates, times, and lengths of shutdowns for the reporting period and year-to-date.

2.1.2 Well Start-Up & Disconnection Log

There were twenty-six (26) wellfield SSM events during the reporting period. See Appendix D, Wellfield SSM Log for details of well disconnection and reconnection events.

2.2 Emission Control Device Downtime (BAAQMD 8-34-501.2 & §60.757(f)(3))

During this reporting period, the GRDF flare (A-9), which began operation in August 2003 was operated in conjunction with newly installed flare (A-14). The control system was not bypassed at any time during the reporting period by operating combination of flare A-9 or flare A-14. Raw LFG was not emitted during the reporting period. The SSM logs for the flare A-9 and flare A-14 are located in Appendix E. As indicated in Section 2.1.1, the total downtime for the 2020 partial calendar year from January 1, 2020 through September 30, 2020, was 45.5 hours, out of an allowable 240 hours per year. The total downtime for the reporting period of April 1, 2020 through September 30, 2020 was 39.7 hours.

The GCCS Downtime Log for the reporting period is included in Appendix B.

2.2.1 LFG Bypass Operations (§60.757(f)(2))

Title 40 CFR §60.757(f)(2*)* is not applicable at the GRDF because a by-pass line has not been installed. LFG cannot be diverted from the control equipment.

2.2.2 Key Emission Control Operating Parameters (BAAQMD 8-34-501.11 & 8-34-509)

BAAQMD Regulation 8-34-501.11 and 8-34-509 are not applicable to the A-9 and A-14 Flares because the A-9 and A-14 Flares are subject to continuous temperature monitoring as required in BAAQMD Regulation 8-34-507 and §60.757(f)(1).

2.3 Temperature Monitoring Results (BAAQMD 8-34-501.3, 8-34-507, & §60.757(f)(1))

The combustion zone temperature of the flare is monitored with Thermo-Electric Thermocouples. The temperature is displayed and recorded every two minutes with a Yokogawa FX1000 digital recorder on flare A-9 and Yokogawa DX1000 digital recorder on flare A-14. There were no temperature deviations during the reporting period that were below the permit limit of 1,593 and 1,608 Degree F for flare A-9 and flare A-14. Appendix F contains the Flare Temperature Deviation/ Inoperative Monitor/Missing Data Report for April 1, 2020 through September 30, 2020.

2.4 Monthly Cover Integrity Monitoring (BAAQMD 8-34-501.4)

The cover integrity monitoring was performed on the following dates:

- April 30, 2020
- May 29, 2020
- June 29, 2020
- July 29, 2020
- August 27, 2020

- September 30, 2020

No areas of concern were found during the reporting period. The Monthly Cover Integrity Monitoring reports are included in Appendix G.

2.5 Less Than Continuous Operation (BAAQMD 8-34-501.5)

The GRDF does not operate under BAAQMD Regulation 8-34-404 (Less Than Continuous Operation) and, therefore, is not required to submit monthly LFG flow rates.

2.6 Surface Emissions Monitoring (BAAQMD 8-34-501.6, 8-34-506, & §60.757(f)(5))

Quarterly Surface Emissions Monitoring (SEM), pursuant to BAAQMD Regulation 8-34-506 occurred during the reporting period on the following dates:

- Second Quarter 2020 – June 4, 2020
- Third Quarter 2020- August 5, 2020

A Photovac Micro Flame Ionization Detector (FID) was used to monitor the path along the landfill surface according to the Landfill Surface Emissions Monitoring Plan map. Any areas suspected of having emissions problems based on visible observations were also monitored. Prior to both monitoring events, the FID instrument was zeroed and calibrated using zero air and a 500 parts per million by volume (ppmv) methane calibration gas.

The Initial monitoring event for the Second Quarter 2020 SEM was conducted by Roberts Environmental Services (RES) on June 4, 2020, identifying 15 exceedance locations. GRDF personnel performed the ten-day re-monitoring on June 18, 2020. GRDF personnel performed the thirty-day follow-up monitoring event on July 2, 2020. No exceedances were observed during the 30-day re-monitoring events. Detailed monitoring results are available in the Second Quarter 2020 SEM Report, included in Appendix H.

The Initial monitoring event for the Third Quarter 2020 SEM was conducted by Roberts Environmental Services (RES) on August 12, 2020, identifying 8 exceedance locations. GRDF personnel performed the first ten-day re-monitoring on August 12, 2020 with no exceedance identified. GRDF personnel performed the thirty-day follow-up monitoring event on September 3, 2020. No exceedances were observed during the 30-day re-monitoring events. Detailed monitoring results are available in the Third Quarter 2020 SEM Report, included in Appendix H.

2.7 Component Leak Testing (BAAQMD 8-34-501.6 & 8-34-503)

Quarterly component leak testing, pursuant to BAAQMD Regulation 8-34-503, occurred during the reporting period on the following dates:

- Second Quarter 2020 – May 21 and June 2, 2020
- Third Quarter 2019- August 5 and 12, September 22, 2020

A TVA was used to perform the leak testing. No exceedances were identified during the reporting period. Appendix H contains the Quarterly LFG Component Leak Monitoring Reports.

2.8 Waste Acceptance Records (BAAQMD 8-34-501.7)

The Annual Waste Acceptance Rate was compiled for the timeframe of April 1, 2020 through September 30, 2020. The Current Waste-In-Place figure includes waste placed through the end of this reporting period. Below is a summary of the waste acceptance records for the reporting period. A table of monthly totals for the reporting period is provided in Appendix I.

Table 2-2 Waste Acceptance

Description	Total Waste Landfilled (Excluding Cover)
Waste Acceptance April 1, 2020 through September 30, 2020	57,907
Current Waste In Place as September 30, 2020	Approximately 9.76 Million tons

2.9 Non-degradable waste acceptance records (BAAQMD 8-34-501.8)

The GCCS Design Plan for the GRDF does not indicate non-degradable waste areas that are excluded from the collection system. Therefore, BAAQMD Regulation 8-34-501.8 is not applicable.

2.10 Wellhead Monitoring Data (BAAQMD 8-34-501.4 & 8-34-505)

Wellhead monitoring was performed on a monthly basis pursuant to 8-34-505. The well readings for April 1, 2020 through September 30, 2020 are included in Appendix J. Each well was monitored in accordance with the following requirements:

- 8-34-305.1 – Each wellhead shall operate under a vacuum;
- 8-34-305.2 – The LFG temperature in each wellhead shall be less than 55 degrees Celsius (°C) (131 degrees Fahrenheit [°F]); and
- 8-34-305.4 – The oxygen concentration in each wellhead shall be less than 5 percent by volume.

The wellhead monitoring was performed on the following dates:

- April 16, 17, 21, 24 and 29, 2020
- May 1, 4, 5, 7, 8, 11, 12, and 13, 2020

- June 3, 9, 22, 25, 26, 29, and 30, 2020
- July 1, 20, 23, 24, 25, 27, 28, 29, and 30, 2020
- August 6, 24, 26, 28, and 29, 2020
- September 10, 14, 16, 17, 21 and 22, 2020

2.10.1 Wellhead Deviations (BAAQMD 8-34-501.9 & §60.757(f)(1))

There were fourteen (14) well deviations with readings that exceeded limits per BAAQMD Regulation 8-34-305 during the reporting period. Corrective actions were initiated and all deviations were corrected within 120 days. See Appendix K, Wellfield Deviation Log, for more detail.

2.10.2 Higher Operating Value (HOV) Wells

As of September 30, 2020, the following list of wells are approved to operate at a temperature HOV of 145°F: Wells 114, 122, 134, 135, 149, 151, 152, 154, 156, 158, 161, 162, 180, 181, 182, 185, 186, 188, 189, 204, 207, and 215. Horizontal Leachate Collectors H11L, H12L are approved for less than continuous operation (LTCO) and may operate at up to 15.0 percent oxygen.

2.11 Gas Flow Monitoring Results (BAAQMD 8-34-501.10, 8-34-508, & §60.757(f)(1)

The flare LFG flow rate was measured with a dedicated Kurz MFT-B flow meter at both the flares. The General Electric data panel displays the LFG flow and the digital Yokogawa data recorder records LFG flow every two minutes and is downloaded and saved to a compact flash card. The flare flow meters meet the requirements of BAAQMD Regulation 8-34-508 by recording data at least every 15 minutes. The flow meter is maintained and calibrated pursuant to manufacturer’s recommendations. The flow data for the flare is available for review at the GRDF. Appendix L contains a summary of the monthly LFG flow rates for the flare. Appendix F contains the Flare Temperature Deviation/ Inoperative Monitor/Missing Data Report for April 1, 2020 through September 30, 2020.

Table 2-3 below is a summary of the total LFG flow for the reporting period of April 1, 2020 through September 30, 2020.

Table 2-3 Total LFG Flow for April 1, 2020 through September 30, 2020

Emission Control Device	Average Flow (scfm)	Average CH_4 (%)*	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Heat Input (MMBTU)
A-9 Flare	1,131	48.2	27,276,950	13,508,550	13,684
A-14 Flare	2,094	44.2	537,215,389	240,708,965	240,127

scfm = standard cubic feet per minute
CH_4 = methane
scf = standard cubic feet
*Methane content determined from April 29, 2020 Source Test on Flare A-9.
*Methane content determined from February 26, 2020 Source Test on Flare A-14.
MMBTU = million British thermal units

2.12 Compliance with §60.757(f)(6)

"The date of installation and the location of each well or collection system expansion added pursuant to (a)(3), (b), (c)(4) of §60.755."

The GCCS was modified pursuant to Title V Permit Condition Number 6188 Part 2 as modified by the Permit to Operate (PTO) Condition Number 28011, during the reporting period. No wells were decommissioned during the reporting period.

As of September 30, 2020, the GRDF has a total 90 collectors, (88 vertical wells and 2 horizontal Leachate collectors). See Appendix C, for copies of the Notification Letters.

2.13 Compliance with Title V Permit Condition Number 23202 for S-23

Title V Permit Condition Number 23202 for S-23 is no longer applicable. A Permit Surrender Letter for S-23 was submitted to the BAAQMD on September 15, 2010, which was included in Appendix C of the April 1, 2010 through September 30, 2010 Combined Report.

2.14 Compliance with Title V Permit Condition Number 6188, Part 20

Contaminated soil containing volatile organic compounds (VOCs) greater than 50 ppm_v was not received during the reporting period. Low-VOC soil (containing less than 50 ppm of VOCs) was not received during the reporting period.

2.15 Compliance with Title V Permit Condition Number 25537 for S-24

For Source S-24, Construction & Demolition Debris Stockpile, the total construction and demolition debris accepted at S-24 in any consecutive 12-month period is limited to 200,000 tons and the combined amount processed is 2,500 tons per day. During the reporting period, the site did not exceed the permitted annual and daily limits. Required records are available for review at the GRDF.

2.16 Compliance with Title V Permit Condition Number 7649 for S-5

For Source S-5, Wood Debris Stockpile, during the reporting period, the operation did not operate for over 12 hours within any consecutive 24-hours. Required records are available for review at the GRDF.

2.17 Compliance with Title V Permit Condition Number 7650 for S-6

For Source S-6, Shredded Storage Stockpiles and Loadout, during the reporting period, the operation did not operate for over 12 hours within any consecutive 24-hours. Required records are available for review at the GRDF.

2.18 Compliance with Title V Permit Condition Number 18258 for S-18

For Source S-18, Materials Recovery Operation, the total throughput did not exceed 900 tons per day average, based on a calendar month. Required records are available for review at the GRDF.

3 PERFORMANCE TEST REPORT

In accordance with BAAQMD Rule 8-34-413 and 40 CFR §60.757(g) in the NSPS, a Performance Test Report is required to be submitted from subject facilities containing performance and monitoring data for the operation of the GCCS. The operational records listed in Table 3-1 have been reviewed, summarized, and are included in the Performance Test Report section of this report.

Table 3-1 Performance Test Requirements

Rule	Requirement	Location in Report
8-34-412, §60.8, §60.752(b)(2)(iii)(B), §60.754(d)	Compliance Demonstration Test	Section 3.1
§60.757(g)(1)	A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for future collection system expansion.	Section 3.2, Appendix A
§60.757(g)(2)	The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based.	Section 3.3
§60.757(g)(3)	The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material.	Section 3.4
§60.757(g)(4)	The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area.	Section 3.5
§60.757(g)(5)	The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill.	Section 3.6
§60.757(g)(6)	The provisions for the control of off-site migration.	Section 3.7 Appendix M

3.1 Flare (A-9) Compliance Demonstration Test Results (BAAQMD 8-34-412)

The Compliance Demonstration Test (Performance Test) was performed on the A-9 Flare by Blue Sky Environmental, Inc. on April 29, 2020, pursuant to BAAQMD Regulation 8-34-412. Two sets of three runs were conducted, one set without condensate injection running and one set with condensate injection running. The final test report was submitted on June 24, 2020.

The Compliance Demonstration Test was performed on the A-14 Flare by Blue Sky Environmental, Inc. on February 26, 2020, pursuant to BAAQMD Regulation 8-34-412. Two sets of three runs were conducted, one set without condensate injection running and one set with condensate injection running. The final test report was submitted on April 13, 2020. Results indicate that the flare was in compliance with BAAQMD Regulation 8-34-301.3 and all permit conditions. As required by BAAQMD Regulation 8-34-301.3, the A-9 Flare meets the non-methane organic compound (NMOC) emission concentration of less than 30 ppm_v. Pursuant to Title V Permit Condition Number 6188 Part 9, the A-9 Flare meets the nitrogen oxide (NO_x) emission concentration of less than 16 ppm_v. Also, the A-9 Flare meets the carbon monoxide (CO) emission concentration of less than 134 ppm_v pursuant to the Title V Permit Condition Number 6188, Part 10.

Results indicate that the flare A-14 was in compliance with BAAQMD Regulation 8-34-301.3 and all conditions in the authority to construct. As required by BAAQMD Regulation 8-34-301.3, the A-14 Flare meets the non-methane organic compound (NMOC) emission concentration of less than 30 ppm_v. The A-14 Flare meets the nitrogen oxide (NO_x) emission concentration of less than 15 ppm_v. Also, the A-14 Flare meets the carbon monoxide (CO) emission concentration of less than 81 ppm_v.

Table 3-2 shows the results of the A-9 Flare Performance Test, averaged from each set of three test runs. Table 3-3 shows the results of the A-14 Flare Performance Test, averaged from each set of three test runs. A summary of this Performance Test Results can be found in Appendix N.

Table 3-2 Flare Compliance Demonstration Test Results- Test Data April 29, 2020

Condition	Flare (A-9) (Condensate Off) Average Results	Flare (A-9) (Condensate On) Average Results	8-34-301.3 limit	Compliance Status
NMOC (either 98% DRE or 30 ppm @ 3% O_2)	<1.6 ppm	<0.5 ppm	30 ppm	In Compliance
NO_x (ppm @ 15% O_2)	8.4	9.5	16	In Compliance
CO (ppm @ 15% O_2)	<3.4	<3.3	134	In Compliance

Table 3-3 Flare Compliance Demonstration Test Results- Test Data February 26, 2020

Condition	Flare (A-14) (Condensate Off) Average Results	Flare (A-14) (Condensate On) Average Results	8-34-301.3 limit	Compliance Status
NMOC (either 98% DRE or 30 ppm @ 3% O_2)	<2.0 ppm	3.0 ppm	30 ppm	In Compliance
NO_X (ppm @ 15% O_2)	8.6	10.0	15	In Compliance
CO (ppm @ 15% O_2)	4.1	<1.3	81	In Compliance

3.2 Compliance with §60.757(g)(1)

"A diagram of the collection system showing collection system positioning including wells, horizontal collectors…"

A map of the LFG collection system showing the location of all vertical wells, horizontal collectors, and other LFG extraction devices is included in Appendix A.

3.3 Compliance with §60.757(g)(2).

"The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based."

The GRDF GCCS has historically provided LFG wells and collectors spaced in accordance with standard industry practice. The GCCS systems are adequate to move the current LFG flow rate. GRDF will continue to add additional LFG control capacity as necessary with the approval of BAAQMD. The installed collector density appears adequate for controlling surface emissions, based on continuous compliance and operational experience.

The total capacity of the LFG mover equipment was designed and will be designed to meet the current United States Environmental Protection Agency (USEPA) Model AP-42 projections of LFG generation and the historic LFG extraction rates determined to be continuously available from the facility.

3.3.1 Demonstrating Compliance with §60.757(g)(2)

"The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based."

Compliance with 40 CFR §60.757(g)(2) is maintained by performing quarterly SEM. Refer to Section 2.6, Surface Emissions Monitoring for information pertaining to the SEM results. These results show that the GCCS has sufficient coverage over the waste footprint. The current GCCS has the capacity to handle the actual recovery. Well monitoring data shows that adequate vacuum is available at all points in the wellfield, demonstrating that the piping network is sufficient to handle extracted LFG.

3.4 Compliance With §60.757(g)(3)

"The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material."

Segregated areas or accumulations of asbestos material were not documented for the site in the GCCS Design Plan. Therefore, §60.757(g)(3) is not applicable.

3.5 Compliance With §60.757(g)(4)

"The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area."

The site does not contain non-productive areas that have been excluded from the coverage of the GCCS. Therefore, §60.757(g)(4) is not applicable.

3.6 Compliance With §60.757(g)(5)

"The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill."

The current GCCS has the capacity to handle LFG flow rates for future.

3.7 Compliance with §60.757(g)(6)

"The provisions for the control of off-site migration."

Quarterly LFG migration monitoring, including all on-site buildings, occurred on the following dates:

- Second Quarter 2020 – May 10, 2020
- Third Quarter 2020- September 23, 2020

The LFG migration monitoring results for the quarterly events are included in Appendix M.

3.7.1 Demonstrating Compliance with §60.757(g)(6)

"The provisions for the control of off-site migration."

The Landfill operator will continue surface and perimeter monitoring in accordance with the approved monitoring plans. If the GCCS at the Landfill does not meet the measures of performance set forth in the NSPS, the GCCS will be adjusted or modified in accordance with the NSPS requirements.

4 STARTUP, SHUTDOWN, MALFUNCTION (SSM) PLAN

4.1 SSM Log for the GCCS at the GRDF

The NESHAP contained in 40 CFR Part 63, AAAA for MSW landfills to control hazardous air pollutants include the regulatory requirements for submittal of a semi-annual report (under 40 CFR §63.10(d)(5) of the general provisions) if an SSM event occurred during the reporting period. The reports required by §63.1980(a) of the NESHAP and §60.757(f) of the NSPS summarize the GCCS exceedances. These two semi-annual reports contain similar information and have been combined as allowed by §63.10(d)(5)(i) of the General Provisions.

NESHAP 40 CFR part 63, AAAA became effective on January 16, 2004. Those SSM events that occurred during the NSPS semi-annual reporting period are reported in this section (April 1, 2020 through September 30, 2020). The following information is included as required:

- During the reporting period, twenty-six (26) Wellfield SSM events occurred. Details are included in Appendix D, Well SSM Log.
- During the reporting period, forty-four (44) A-9 Flare SSM events occurred. The A-9 Flare was shut down and restarted during the reporting period due to the reasons noted in Appendix E, Flare SSM Log.
- During the reporting period, thirty-nine (39) A-14 Flare SSM events occurred. The A-14 Flare was shut down and restarted during the reporting period due to the reasons noted in Appendix E, Flare SSM Log.
- During the reporting period, no monitoring/recorder equipment SSM events occurred. Details are included in Appendix F, Temperature Deviation/Inoperative Monitor/Missing Data Report.
- There were one hundred and nine (109) events in total. In all events, automatic systems and operator actions were consistent with the standard operating procedures contained in the SSM Plan. There were no deviations from the SSM plan.
- Exceedances were not identified during the reporting period in any applicable emission limitation in the landfills NESHAP (§63.10(d)(5)(i)).
- Revisions of the SSM Plan to correct deficiencies in the landfill operations or procedures were neither required, nor prepared (§63.6(e)(3)(viii)).

I certify the following:

> ***Based on information and belief formed after reasonable inquiry, information on the startup, shutdown, malfunction forms, all accompanying reports, and other required certifications are true, accurate, and complete.***

10-07-2020

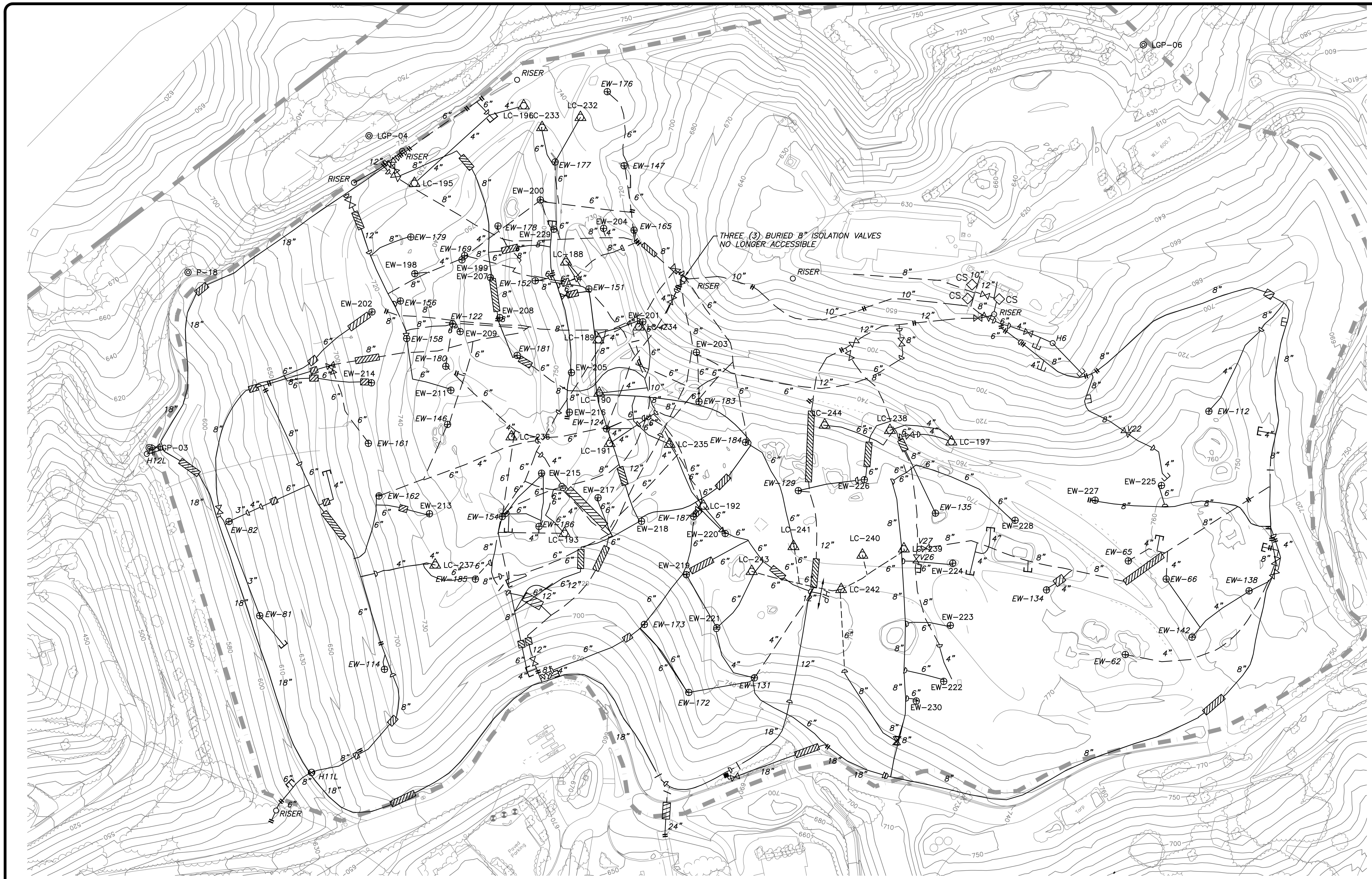
Signature of Responsible Official **Date**

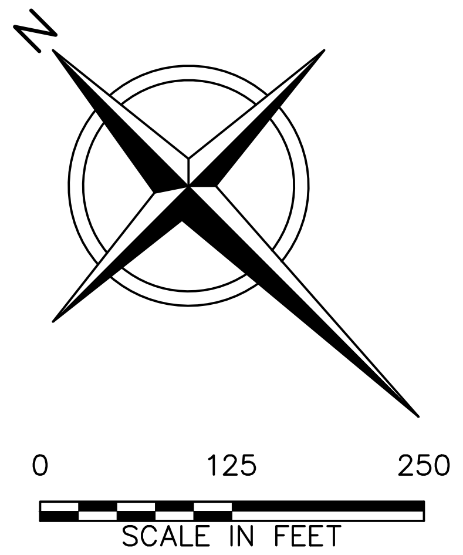
Enrique Perez

Name of Responsible Official

APPENDIX A

SITE MAP





LEGEND

▬ ▬ · ▬	PROPERTY BOUNDARY
—1400—	EXISTING 10' CONTOUR
12"	EXISTING ABOVEGROUND PIPING
– – 12" – –	EXISTING BELOWGROUND PIPING
— · — · —	EXISTING HORIZONTAL COLLECTOR
⊕ EW-3	EXISTING LFG EXTRACTION WELL
⊗	EXISTING REMOTE WELLHEAD
◎ LGP-04 ◎ P-18	EXISTING PROBE
○H6 ⊕ EW-H15	EXISTING HORIZONTAL COLLECTOR WELLHEAD
△ LC-190	EXISTING LOCAL CONTROL WELL
⋈	EXISTING CONTROL VALVE
⊣	EXISTING BLIND FLANGE
⊣⊢	EXISTING FLANGE CONNECTION
⊳	EXISTING REDUCER FITTING
▨	EXISTING ROAD CROSSING
◇ CS-	EXISTING CONDENSATE SUMP
○ RISER	EXISTING RISER
⊐	EXISTING CAP ON EXISTING PIPE

NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY MILLER CREEK AERIAL MAPPING OF BURIEN, WA. DATE OF PHOTOGRAPHY: APRIL 1, 2020. DATUM: HORIZONTAL – NAD 83, VERTICAL – NAD 88.
2. SUPPLEMENTAL 2015 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON MAY 29, 2015. WELL LOCATIONS PER ISSUED FOR CONSTRUCTION WELL SCHEDULE DATED APRIL 10, 2015.
3. 2018 GCCS IMPROVEMENTS AS-BUILT PIPING PER SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: DECEMBER 11, 2018.
4. 2019 GCCS IMPROVEMENTS AS-BUILT PIPING PER SURVEY PROVIDED BY WM DATED: NOVEMBER 11, 2019.
5. SUPPLEMENTAL 2019 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON JANUARY 6, 2020.
6. SUPPLEMENTAL 2019 GCCS AS-BUILT MARKUPS/COMMENTS PROVIDED BY WM ON JANUARY 27, 2020 AND JANUARY 29, 2020.
7. 2020 GCCS IMPROVEMENTS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: JULY 22, 2020.

File: X:\PROJECTS\GUADALUPE\200126 – 2020 AS-BUILT UPDATE\Project Drawings\200126-GUADALUPE_2020 AS-BUILT UPDATE_Rev201005.dwg Layout: S1 User: GERARDO.PAREDES Oct 05, 2020 – 2:49pm

1" 1/2" 0" 1"

DRAFT AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 10/05/2020
DRAWN BY GVP
DESIGNED BY DHK
CHECKED BY AMN
APPROVED BY PJS

TETRA TECH

GUADALUPE RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA
2020 GCCS IMPROVEMENTS

AS-BUILT SITE PLAN

SHEET NO.
1

PROJECT NO.
200126

APPENDIX B

GCCS DOWNTIME REPORT

LFG Collection System: April 1 through September 30, 2020

2020 GCCS DOWNTIME LOG (Partial)

GUADALUPE RECYCLING & DISPOSAL FACILITY, San Jose, CA

SHUTDOWN DATE/ TIME	START-UP DATE/ TIME	TOTAL DOWNTIME (HOURS)	COMMENTS OR REASONS
01/02/20 11:32	01/02/20 11:44	0.20	Flare shutdown during flowmeter inspection and maintenance. Cleaned flowmeter probe. Flare was inspected and restarted.
01/02/20 11:56	01/02/20 12:02	0.10	Flare shutdown during startup sequence. Flare was inspected and restarted.
02/06/20 10:50	02/06/20 13:14	2.40	Flare shutdown during annual flare inspection. Flare was inspected and restarted.
02/13/20 13:48	02/13/20 15:16	1.47	Flare shutdown to install flowmeter updated firmware/card. Flare was inspected and restarted.
02/18/20 13:28	02/18/20 13:56	0.47	Flare shutdown to clean the flowmeter probe. Flare was inspected and restarted.
02/18/20 14:06	02/18/20 14:08	0.03	Flare shutdown during startup sequence. Flare was inspected and restarted.
02/26/20 15:12	02/26/20 15:40	0.47	Flare shutdown to install thermocouple. Flare was inspected and restarted.
03/23/20 08:58	03/23/20 09:28	0.50	Flare shutdown during startup of Flare A9. Flare A9 started for testing and inspection. Flare was inspected and restarted.
03/30/20 09:38	03/30/20 09:44	0.10	Flare shutdown to disconnect rental generator. Flare was inspected and restarted during the next site visit.
04/06/20 11:48	04/06/20 12:04	0.27	Flare shutdown during startup of the condensate system. Flare was inspected and restarted.
04/08/20 11:12	04/08/20 11:16	0.07	Flare shutdown during inspection and to clean flowmeter probe. Flare was inspected and restarted.
04/08/20 11:30	04/08/20 12:12	0.70	Flare shutdown during inspection and to clean flowmeter probe. Flare was inspected and restarted.
04/10/20 12:36	04/10/20 13:20	0.73	Flare shutdown during inspection and to clean flowmeter probe. Flare was inspected and restarted.
04/22/20 13:54	04/22/20 15:40	1.77	Flare shutdown during inspection of condensate system at Flare A9. Flare was inspected and restarted.
04/23/20 10:00	04/23/20 10:46	0.77	Flare shutdown during inpection at Flare A9 and KOP inspection. Flare was inspected and restarted.
04/24/20 14:02	04/24/20 14:20	0.30	Flare shutdown during inspection and to clean flowmeter probe. Flare was inspected and restarted.
04/28/20 08:46	04/28/20 09:40	0.90	Flare was restarted for pre source test inspection. Flare was inspected and restarted.
04/28/20 12:28	04/28/20 13:38	1.17	Flare was restarted for pre source test inspection. Flare was inspected and restarted.
04/28/20 13:42	04/28/20 13:48	0.10	Flare shutdown during startup sequence. Flare was inspected and restarted.
04/28/20 15:06	04/28/20 15:32	0.43	Flare was restarted for pre source test inspection. Flare was inspected and restarted.
04/28/20 16:02	04/28/20 16:24	0.37	Flare A14 was restarted. Flare was inspected and restarted.
04/29/20 08:54	04/29/20 09:40	0.77	Flare A-14 shutdown to restart Flare A-9 during annual source test. Flare was inspected and restarted.
04/29/20 16:46	04/29/20 17:00	0.23	Flare A-14 was started. Flare was inspected and restarted.
05/21/20 10:20	05/21/20 10:52	0.53	Flare A14 was shutdown and Flare A9 was restarted to check condition of blower. Flare was inspected and restarted.
05/21/20 14:06	05/21/20 15:24	1.30	Flare A9 was shutdown and Flare A14 was back online. Flare was inspected and restarted.
05/27/20 11:00	05/27/20 11:56	0.93	Flare A14 was shutdown and Flare A9 was restarted for longer duration to check condition of blower. Flare was inspected and restarted.
05/28/20 12:34	05/28/20 12:48	0.23	Flare A9 was shutdown and Flare A14 was back online. Flare was inspected and restarted.
06/11/20 12:08	06/11/20 12:50	0.70	Flare shutdown during startup of Flare A9. Flare was inspected and restarted.
06/29/20 08:26	06/29/20 12:20	3.90	Flare shutdown during KOP inspection, cleanup and maintenance. Flare was inspected and restarted.
07/06/20 13:48	07/06/20 14:10	0.37	Flare shutdown to clean flowmeter probe. Flare was inspected and restarted.
07/12/20 08:52	07/12/20 11:18	2.43	Flare shutdown due to clogged filter on compressor. Flare was inspected and restarted.
08/10/20 09:46	08/10/20 11:22	1.60	Flare shutdown during restart attempts on flare A9. Flare was inspected and restarted.
08/12/20 08:54	08/12/20 11:06	2.20	Flare shutdown during restart attempts on flare A9. Flare was inspected and restarted.
08/13/20 10:28	08/13/20 10:44	0.27	Flare A9 was shutdown and A14 was restarted. Flare was inspected and restarted.
08/31/20 09:56	08/31/20 13:26	3.50	Flare shutdown during restart attempts on flare A9. Flare was inspected and restarted.
08/31/20 13:30	08/31/20 13:34	0.07	Flare shutdown during starup sequence. Flare was inspected and restarted.
08/31/20 13:38	08/31/20 13:48	0.17	Flare shutdown during starup sequence. Flare was inspected and restarted.
08/31/20 13:52	08/31/20 13:58	0.10	Flare shutdown during starup sequence. Flare was inspected and restarted.
09/02/20 09:16	09/02/20 10:04	0.80	Flare shutdown during inspection and maintenance. Flare was inspected and restarted.
09/08/20 10:40	09/08/20 12:02	1.37	Flare shutdown during restart attempts on flare A9. Flare was inspected and restarted.
09/10/20 10:38	09/10/20 12:54	2.27	Flare shutdown during startup and inspection and maintenance. Flare was inspected and restarted.
09/16/20 16:56	09/16/20 17:02	0.10	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
09/17/20 11:04	09/17/20 11:54	0.83	Flare was shutdown due to low temperature alarm. Flare was inspected and restarted.
09/18/20 10:16	09/18/20 11:00	0.73	Flare was shutdown during KOP maintenance. Flare was inspected and restarted.
09/24/20 03:42	09/24/20 10:28	6.77	Flare was shutdown due to low temperature alarm. Flare was inspected and restarted.
TOTAL DOWNTIME January 1 through September 30, 2020(HOURS)-Partial		**45.47**	
TOTAL DOWNTIME April 1 through September 30, 2020 (HOURS)		**39.73**	
TOTAL PERMITTED DOWNTIME FOR 1 YEAR (HOURS):		**240.00**	

APPENDIX C
BAAQMD Correspondence

Guadalupe Rubbish
Disposal Co., Inc.
15999 Guadalupe Mines Road
P.O. Box 20957
San Jose, CA 95160

May 11, 2020

Ms. Tamiko Endow
Permit Service Division
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

Re: Facility No. A3294– Guadalupe Recycling and Disposal Facility
Notification of the Addition of Landfill Gas Collection Well 204, to Higher Operating Value List

Dear Ms. Endow:

The Guadalupe Recycling and Disposal Facility (GRDF), owned by Guadalupe Rubbish Disposal Co., Inc., (GRDC) is subject to the Federal New Source Performance Standards/Emission Guidelines (NSPS/EG) for municipal solid waste (MSW) landfills (40 Code of Federal Regulations [CFR], Part 60, Subparts WWW and Cc) and the Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34. In accordance with Title V Permit Condition Number 6188, Part 3b(vi), the GRDF is submitting this letter as notification to the BAAQMD for the addition of landfill gas (LFG) Well 204 to the higher operating value (HOV) list of wells at the GRDF.

The GRDF has installed and operates a landfill gas collection and control system (GCCS) at the facility in accordance with the NSPS/EG and BAAQMD Regulation 8, Rule 34. These regulations require that the LFG wells that make up the GCCS be operated with wellhead temperatures below 131 degrees Fahrenheit (°F) (BAAQMD 8-34-305).

In March and April 2020, the GRDF investigated the LFG temperatures at Well 204. The intent of the investigation was to determine if the elevated temperature readings were due to excess air infiltration, damage to the well, or if the well simply operates at a higher normal temperature.

The review of monitoring data for Well 204 indicates that the well had elevated operating temperatures, and oxygen data shows low oxygen has been detected at the wells. Upon first discovering the elevated temperatures, GRDF personnel monitored the well for carbon monoxide (CO), which is an early indicator of subsurface fire. Typically, CO concentrations of greater than 1,000 parts per million by volume (ppmv) will indicate a subsurface fire, with CO concentrations greater than 500 ppmv being of concern. The initial two readings at Well 204 indicated CO readings of 0 and 5 ppmv. Subsequent monitoring at Well 204 indicated that CO concentrations remained at 5 and 0 ppmv. The wellhead temperature for each CO monitoring event was less than 140°F. Methane concentrations at Well 204 did not appear to be affected by operation at the higher temperatures. See attached table for historical monitoring data and CO monitoring results. Well 204 did not have well exceedances within the last 120 days.

GRDF considers Well 204 added to the HOV list for a temperature of 145°F as of May 11, 2020. Should the temperature measured at Well 204 during routine monitoring exceed 145°F, GRDF will consider it an exceedance and will track the deviation in accordance with the NSPS/EG and BAAQMD requirements.

If you have any questions or need any additional information please do not hesitate to contact me at (510) 875-9338.

Sincerely,

Guadalupe Recycling and Disposal Facility

Rajan Phadnis
Waste Management

Enclosures: Attachment A- Wellfield Monitoring Data for Well 204
Figure 1. – Gas Collection and Control System Map

cc: Bill Louis, GRDF
Mike Winter, GRDF

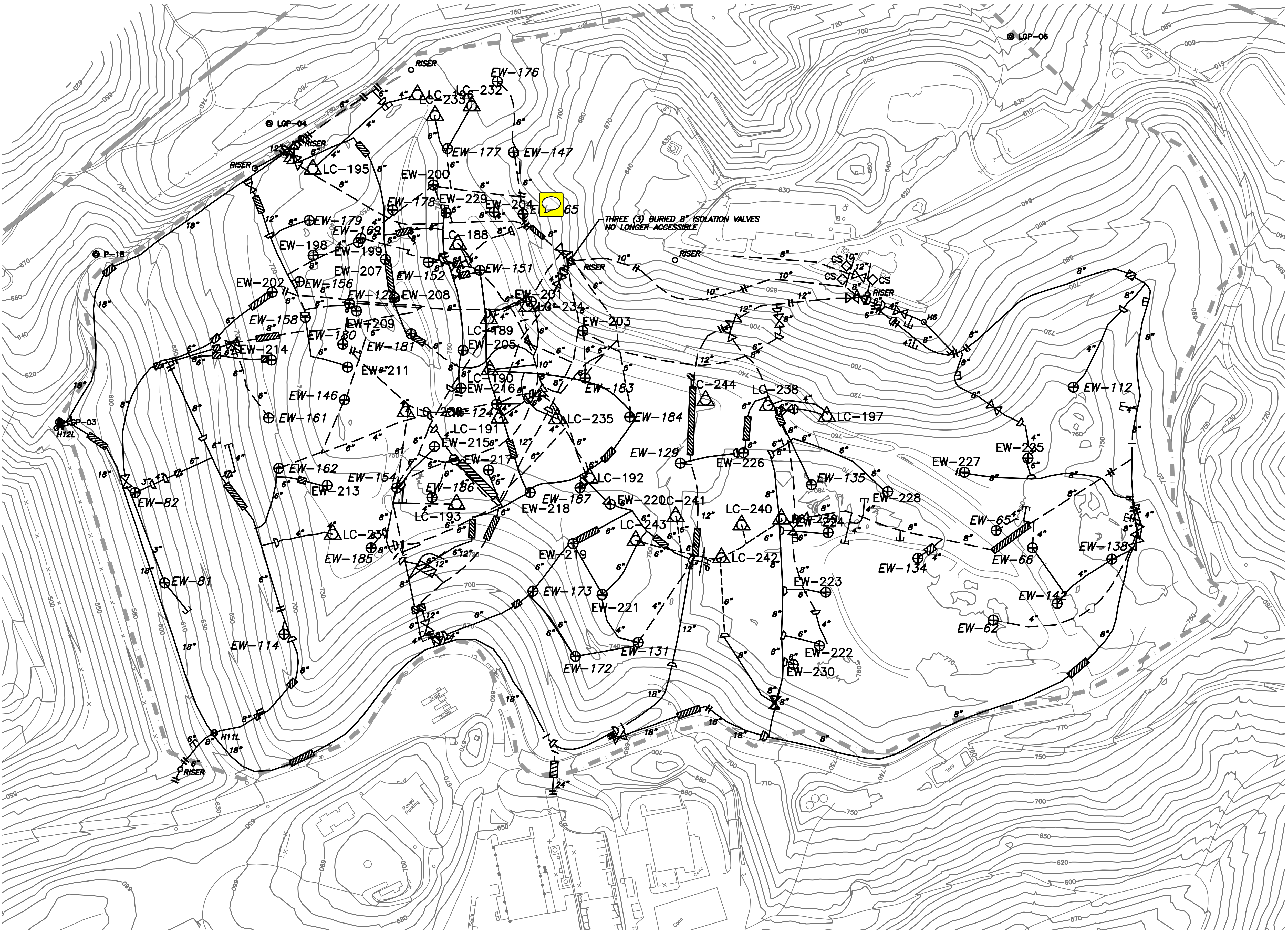
Attachment A

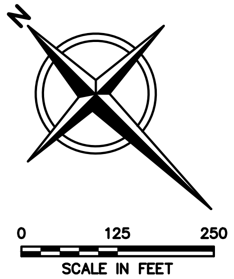
Historical Well Field Monitoring and CO Data for Well 204

Table 1. Well 204 Historical Wellfield Monitoring Data

Device Name	Date Time	CH4 (Methane)(%)	CO2 (Carbon Dioxide)(%)	O2 (Oxygen)(%)	Balance Gas(%)	Initial Temperature(oF)	Adjusted Temperature(oF)	Initial Static Pressure(''H2O)	Adjusted Static Pressure(''H2O)
GUAD0204	11/6/2019 19:49	53.4	41.5	0	5.1	128.0	129.0	-5.7	-5.7
GUAD0204	12/12/2019 18:55	52.1	41.3	0	6.6	127.0	128.0	-10.0	-10.5
GUAD0204	1/15/2020 9:16	54.1	42.0	0.1	3.8	129.3	129.4	-11.9	-11.8
GUAD0204	2/19/2020 8:01	52.4	41.7	0.0	5.9	130.5	130.4	-14.3	-14.3
GUAD0204	3/12/2020 15:50	50.1	39.5	0.1	10.3	131.1	131.1	-15.0	-14.9
GUAD0204	3/12/2020 15:55	50.1	39.9	0.0	10.0	131.1	130.9	-14.9	-14.1
GUAD0204	3/26/2020 14:23	50.6	40.6	0.0	8.8	131.0	131.0	-15.1	-14.0
GUAD0204	3/26/2020 19:36	CO was 0.0 ppm							
GUAD0204	4/17/2020 13:13	51.0	41.3	0.0	7.7	128.0	129.0	-22.0	-24.3
GUAD0204	4/17/2020 19:15	CO was 5.0 ppm							
GUAD0204	4/29/2020 13:42	CO was 5.0 ppm							
GUAD0204	4/29/2020 13:52	53.6	42.5	0.0	3.9	123.6	124.1	-8.3	-10.0
GUAD0204	5/5/2020 14:45	49.6	41.2	0.2	9.0	129.8	129.9	-33.5	-33.1
GUAD0204	5/5/2020 18:18	CO was 0.0 ppm							

Figure 1 – Gas Collection and Control System Map





LEGEND

▬ ▬ ▬	PROPERTY BOUNDARY
1400	EXISTING 10' CONTOUR
12"	EXISTING ABOVEGROUND PIPING
12"	EXISTING BELOWGROUND PIPING
— · — · —	EXISTING HORIZONTAL COLLECTOR
⊕ EW-3	EXISTING LFG EXTRACTION WELL
△ LC-188	EXISTING LOCAL CONTROL WELL
⊗	EXISTING REMOTE WELLHEAD
◎ LGP-04 ◎ P-18	EXISTING PROBE
○ H6 ⊕ EW-H15	EXISTING HORIZONTAL COLLECTOR WELLHEAD
⋈	EXISTING CONTROL VALVE
⊣‖	EXISTING BLIND FLANGE
⊣‖⊢	EXISTING FLANGE CONNECTION
⊣▷⊢	EXISTING REDUCER FITTING
▨	EXISTING ROAD CROSSING
◇ CS-	EXISTING CONDENSATE SUMP
○ RISER	EXISTING RISER
—⊐	EXISTING CAP ON EXISTING PIPE

NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY MILLER CREEK AERIAL MAPPING OF BURIEN, WA. DATE OF PHOTOGRAPHY: MARCH 30, 2019. DATUM: HORIZONTAL – NAD 83, VERTICAL – NAD 88.
2. SUPPLEMENTAL 2015 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON MAY 29, 2015. WELL LOCATIONS PER ISSUED FOR CONSTRUCTION WELL SCHEDULE DATED APRIL 10, 2015.
3. 2018 GCCS IMPROVEMENTS AS-BUILT PIPING PER SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: DECEMBER 11, 2018.
4. 2019 GCCS IMPROVEMENTS AS-BUILT PIPING PER SURVEY PROVIDED BY WM DATED: NOVEMBER 11, 2019.
5. SUPPLEMENTAL 2019 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON JANUARY 6, 2020.
6. SUPPLEMENTAL 2019 GCCS AS-BUILT MARKUPS/COMMENTS PROVIDED BY WM ON JANUARY 27, 2020 AND JANUARY 29, 2020.

FINAL AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE JAN. 2020
DRAWN BY SEY
DESIGNED BY AMN
CHECKED BY HLV
APPROVED BY PJS

TETRA TECH

ALL PROFESSIONAL ENGINEERING WORK IS PERFORMED BY DULY LICENSED PROFESSIONAL ENGINEERS UNDER THE APPROPRIATE STATE REGISTERED PROFESSIONAL ENTITY.

GUADALUPE RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA

2019 GCCS IMPROVEMENTS
GCCS AS-BUILT SITE PLAN

SHEET NO.
1

PROJECT NO.
190368

1"
1/2"
0"
1"

File: C:\Users\SAM.YOUNGKIN\appdata\local\temp\AcPublish_19404\DUGUAGS_2019 GCCS_1.28.20.dwg Layout: Sheet 1 User: SAM.YOUNGKIN Jan 30, 2020 - 1:09pm

Guadalupe Rubbish
Disposal Co., Inc.
15999 Guadalupe Mines Road
P.O. Box 20957
San Jose, CA 95160

July 2, 2020

Ms. Tamiko Endow
Bay Area Air Quality Management District
Permit Services Division
375 Beale Street, Suite 600
San Francisco, CA 94105

Re: Startup Notification Letter for 2 New Vertical Wells
Title V Permit Condition Number 6188 Part 2, Facility A3294
Guadalupe Rubbish Disposal Co., Inc., San Jose, California

Dear Ms. Endow,

This letter is to notify the Bay Area Air Quality Management District (BAAQMD) of the startup of two new LFG wells at the Guadalupe Rubbish Disposal Co., Inc., (GRDC), pursuant to Title V Permit Condition 6188, Part 2, as modified by Application Number (AN) 28011.

The affected collectors and respective startup dates are listed in the following table:

Well ID	**Well Action Type**	**Applicable Date/Time**
GDLC0235	Startup	6/26/2020; 1:15 PM
GDLC0244	Startup	7/02/2020; 3:09 PM

As stated in the most recent, Well Actions Letter dated, November 20, 2019, GRDC had 88 total collectors (86 vertical wells and 2 horizontal collectors) connected to the GCCS.

With the completion of these well actions, the GRDC's current GCCS component count and permitted remaining actions per AN 28011 are listed in the following table:

Description	Vertical Decommissioning Actions	Vertical Installation Actions	Horizontal Decommissioning Actions	Horizontal Installation Actions
Actions Permitted Under AN 28011	40	70	10	20
Actions Performed Under AN 28011	11	41	1	0
Actions Remaining Under AN 28011	29	29	9	20

Active Well Count After Actions in this Letter	**90 total collectors (88 vertical LFG wells and 2 horizontal collectors)**

This notification is pursuant to Title V Permit Requirements; which state that the permit engineer must be notified of changes to the wellfield.

Please feel free to contact me at (510) 875-9338 if you have any questions regarding this report.

Sincerely,

Guadalupe Rubbish Disposal Company, Inc.

Rajan Phadnis
EP Specialist

CC: Bill Louis, GRDC
Mike Winter, GRDC

WASTE MANAGEMENT

Guadalupe Rubbish Disposal Company, Inc.
15999 Guadalupe Mines Road, San Jose, CA 95120

June 9, 2020

Ms. Tamiko Endow
Senior Air Quality Engineer
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, California 94105

Re: Guadalupe Recycling and Disposal Facility
Facility Number A3294
Request for Limited Exemption (for construction activities) from Regulation 8, Rule 34 (Solid Waste Disposal Sites), Section 303 (Landfill Surface Requirements)

Dear Ms. Endow:

This letter requests a limited exemption from the requirements of Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 303 (Landfill Surface Requirements) during construction, repairs and installation of piping and laterals to be connected to the existing gas collection and control system (GCCS) from June 17, 2020 through September 30, 2020, at the Guadalupe Rubbish Disposal Company, Inc. (GRDC). This notification is submitted pursuant to the BAAQMD Regulation 8, Rule 34, Section 118, "Limited Exemptions for Construction Activities." The work consists of repairs and installation of piping and laterals that will connect to the existing gas collection and control system (GCCS) to maintain compliance with the BAAQMD Regulation 8, Rule 34, and is to be performed during the period of June 17, 2020 through September 30, 2020.

GRDC will conduct repairs and installation of piping and laterals that will connect to the existing GCCS. This letter also transmits the BAAQMD-required construction plan (work plan) for the proposed work. The work plan contains information required pursuant to Regulation 8, Rule 34, Section 118.1 and AB-32 §95470(a)(1)(I) and (J) and includes:

- Description of actions being taken;
- Description of landfill areas affected;
- Description of LFG components affected;
- Map showing the above areas and components;
- Reason requiring the action;
- Construction schedule;
- Description of air quality mitigation measures planned; and
- Recordkeeping requirements.

No significant interruption of the current site LFG extraction and control operations is anticipated due to the work. The construction will begin on or around June 17, 2020. We anticipate construction activities to conclude by September 30, 2020.

Unless notified otherwise, GRDC will proceed in accordance with the attached work plan. We deem submittal of this plan as approval by the BAAQMD to take necessary action to ensure compliance with regulations, which may include taking additional LFG extraction wells offline for an extended period of time pursuant to Regulation 8, Rule 34, Section 118.

In case of any questions, please do not hesitate to contact me at (408) 960-0770.

Sincerely,

Guadalupe Rubbish Disposal Company, Inc.

Michael L. Winter
District Engineer

Cc: Enrique Perez, GRDC
Bill Louis, WM

BAAQMD REGULATION 8, RULE 34 CONSTRUCTION PLAN

GUADALUPE RUBBISH DISPOSAL COMPANY, INC.

LFG PIPING CONSTRUCTION PROJECT

June 17, 2020 through September 30, 2020

INTRODUCTION

This Construction Work Plan is submitted pursuant to Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 118: Limited Exemptions for Construction Activities. To obtain an exemption from BAAQMD Regulation 8, Rule 34, Section 303: Landfill Surface Requirements, the operator shall submit a construction plan in writing to the Air Pollution Control Officer (APCO) prior to beginning any construction activities. In addition, this plan also includes information required by the AB-32 Sections §95470(a)(1)(I) and (J).

BAAQMD Section 303 requires maintaining the concentration of organic compounds and methane below 500 parts per million by volume (ppm$_v$) at all points on the landfill surface. Section 118 provides an exemption from the surface emission standard for *"....areas of the landfill surface where the landfill cover material has been removed and refuse has been exposed for the express purpose of installing, expanding, replacing, or repairing components of the landfill gas, leachate, or gas condensate collection and removal systems."*

Pursuant to Regulation 8, Rule 34, Section 118 and AB-32 Sections §95470(a)(1)(I) and (J), this work plan includes:

- Description of actions being taken;
- Description of landfill areas affected;
- Description of landfill gas (LFG) components affected;
- Map showing the affected areas and components;
- Reason requiring the action;
- Construction schedule;
- Description of air quality mitigation measures planned; and
- Recordkeeping requirements.

ACTIONS BEING TAKEN

The work consists of repairs and installation of piping and laterals connected to the existing GCCS.

AFFECTED LANDFILL AREAS

The construction activities will occur in the area shown on the attached figure.

AFFECTED LFG COMPONENTS

It is anticipated that construction will have no significant impact on the routine operation of the existing GCCS. Installation and repair of laterals and piping is independent of the ongoing operations of the GCCS. When connecting new piping, isolation valves installed within the existing GCCS piping network will be used to minimize the number of existing wells offline at any given time.

REASONS FOR ACTIONS

The proposed construction work is intended to:

- Repairs and installation of piping and laterals of existing GCCS.

CONSTRUCTION SCHEDULE

The anticipated construction period will be between June 17, 2020 through September 30, 2020. The anticipated schedule for the construction activities is summarized in the table below:

Table 1 - Preliminary Construction Schedule

Task	Project Week and Duration
Mobilize crew, equipment, and materials to site	1 week
Repair and installation of piping and laterals	Up to 13 weeks
Clean-up and demobilize crew and materials	1 week

AIR QUALITY MITIGATION MEASURES

Emission of raw LFG will be minimized during construction. We anticipate minimal interruption of the overall site LFG extraction and control operations during the work. Installation and repair of piping is independent of ongoing operations of the existing GCCS. Air quality mitigation will be provided during the installation of wells and connection of wells to existing GCCS piping network. These mitigation measures are presented below and are designed to meet both the requirements of 8-34 Section 118 and §95470(a)(1)(I).

Due to the minimal amount of excavation planned for this work, air quality impacts are also anticipated to be minimal. Air quality mitigation will be provided during the following work tasks:

- Excavation for installation piping;
- Excavation and backfill of pipe trenches; and
- Connection of new piping and laterals to existing piping and GCCS

During construction and excavation through waste and soil cover, air emission will be controlled by implementing the following measures:

- Minimizing the installation time for each component;
- Minimizing the quantity of trench excavations at any one time;
- Relocating excavated refuse to the designated waste disposal area immediately and covering the relocated waste daily by no later than the end of each day; and
- Well borings will not be left open overnight or for periods greater than 8 hours

During connection of wells to the existing LFG piping, and installation of laterals and piping, air emissions will be controlled by implementing the following measures:

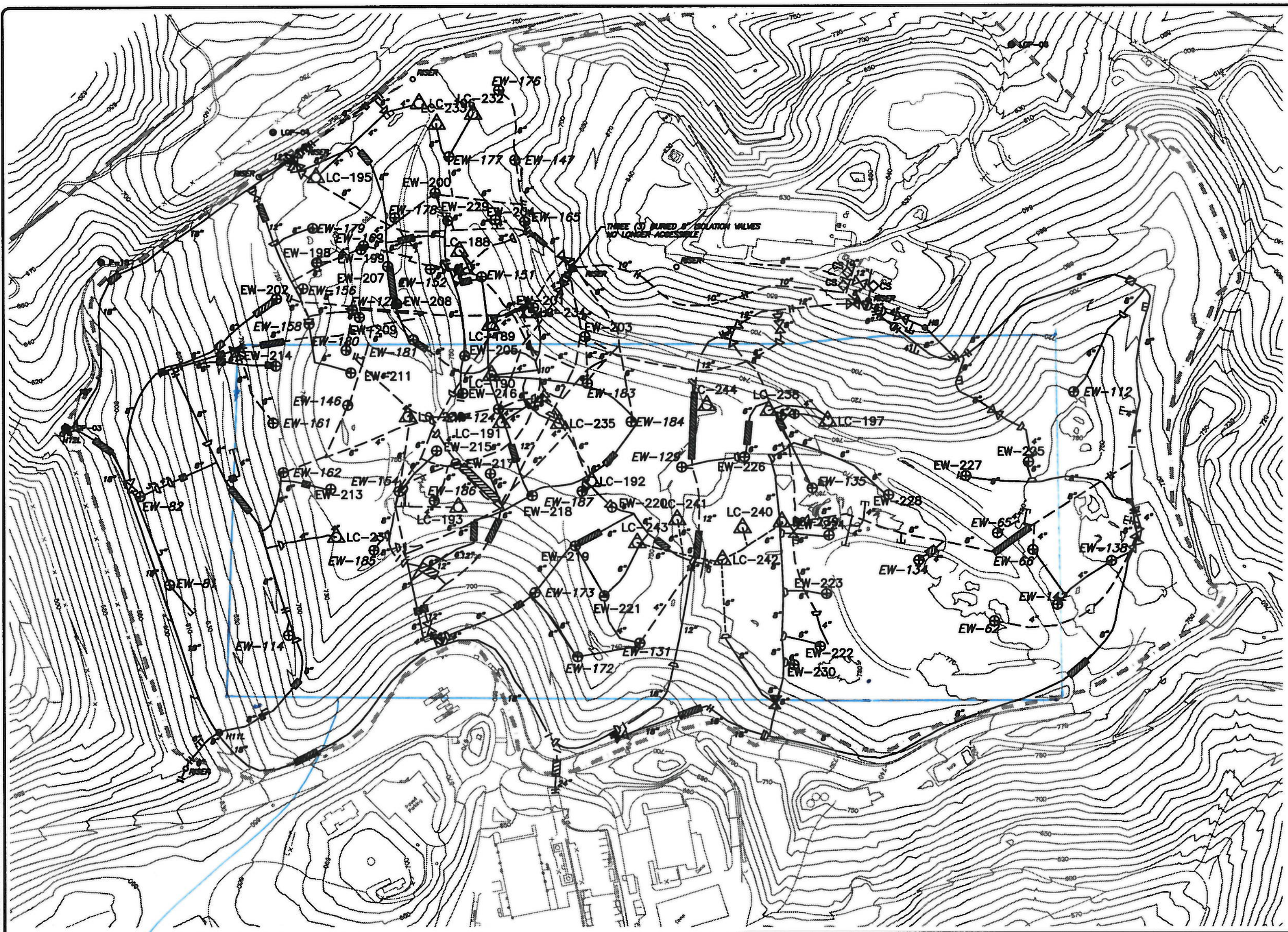
- Capping or blind flanging of all pipes and collector openings, which will remain sealed until time of connection to a vacuum source;
- Using isolation valves;
- Minimizing installation time for making each connection; and
- Minimizing the amount of open pipe during each installation, by using flange joints and flexible couplings.

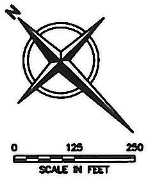
RECORDKEEPING

The following records will be retained during the project:

- Construction start and end dates, projected and actual installation dates, and projected shut down times for individual gas collection system components.
- GCCS downtime and individual well shutdown times will be documented in accordance with the GRDC's Startup, Shutdown, and Malfunction (SSM) Plan.
- Mitigation measures taken to minimize methane emissions and other potential air quality impacts will be documented.

Attachments: Figure 1 - GCCS Map





LEGEND

▬ ▬ ▬	PROPERTY BOUNDARY
----1400----	EXISTING 10' CONTOUR
—— 12" ——	EXISTING ABOVEGROUND PIPING
- - 12" - -	EXISTING BELOWGROUND PIPING
— · — · —	EXISTING HORIZONTAL COLLECTOR
● EW-3	EXISTING LFG EXTRACTION WELL
△ LC-188	EXISTING LOCAL CONTROL WELL
●	EXISTING REMOTE WELLHEAD
● LGP-04 ● P-18	EXISTING PROBE
○ H8 ● EW-H15	EXISTING HORIZONTAL COLLECTOR WELLHEAD
⋈	EXISTING CONTROL VALVE
⊣	EXISTING BLIND FLANGE
⫲	EXISTING FLANGE CONNECTION
▶	EXISTING REDUCER FITTING
▨	EXISTING ROAD CROSSING
◇ CS-	EXISTING CONDENSATE SUMP
○ RISER	EXISTING RISER
—]	EXISTING CAP ON EXISTING PIPE

NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY MILLER CREEK AERIAL MAPPING OF BURIEN, WA. DATE OF PHOTOGRAPHY: MARCH 30, 2019. DATUM: HORIZONTAL – NAD 83, VERTICAL – NAD 88.
2. SUPPLEMENTAL 2015 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON MAY 29, 2015. WELL LOCATIONS PER ISSUED FOR CONSTRUCTION WELL SCHEDULE DATED APRIL 10, 2015.
3. 2018 GCCS IMPROVEMENTS AS-BUILT PIPING PER SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: DECEMBER 11, 2018.
4. 2019 GCCS IMPROVEMENTS AS-BUILT PIPING PER SURVEY PROVIDED BY WM DATED: NOVEMBER 11, 2019.
5. SUPPLEMENTAL 2019 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON JANUARY 6, 2020.
6. SUPPLEMENTAL 2019 GCCS AS-BUILT MARKUPS/COMMENTS PROVIDED BY WM ON JANUARY 27, 2020 AND JANUARY 29, 2020.

FINAL AS-BUILT

PROPOSED PROJECT APPROX· AREA

WASTE MANAGEMENT

DATE OF ISSUE JAN. 2020
DRAWN BY SEY
DESIGNED BY AMN
CHECKED BY HLV
APPROVED BY PJS

TETRA TECH

GUADALUPE RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA

2019 GCCS IMPROVEMENTS
GCCS AS-BUILT SITE PLAN

SHEET NO.
1

PROJECT NO.
190368

APPENDIX D

WELL SSM LOG

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: Wellfield

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - April 1, 2020 Through September 30, 2020

Identify Well & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Well ID Number:183 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/1/20 12:04	4/1/20 12:06	0.03	551 hours (23 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/1/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:183 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/24/20 10:40	4/24/20 10:42	0.03			☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/24/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:226 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	3/27/20 11:30	3/27/20 11:32	0.03	1,080 hours (45 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	3/27/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:226 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	5/11/20 11:08	5/11/20 11:10	0.03			☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/11/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:183 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/24/20 10:50	4/24/20 10:52	0.03	600 hours (25 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/24/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:183 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	5/19/20 11:10	5/19/20 11:12	0.03			☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/19/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:217 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	5/15/20 12:10	5/15/20 12:12	0.03	95 hours (4 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/15/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:217 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	5/19/20 10:53	5/19/20 10:55	0.03			☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/19/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:190 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	5/28/20 12:45	5/28/20 12:47	0.03	481 hours (20 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/28/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:190 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/17/20 13:30	6/17/20 13:32	0.03			☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	6/17/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:187 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/24/20 9:30	6/24/20 9:32	0.03	1 hours	Well offline for repairs.	☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/24/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:187 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/24/20 10:20	6/24/20 10:22	0.03			☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/24/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:192 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/24/20 11:30	6/24/20 11:32	0.03	1 hours	Well offline for repairs.	☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/24/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:192 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/24/20 12:20	6/24/20 12:22	0.03			☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/24/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:184 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/25/20 9:00	6/25/20 9:02	0.03	2 hours	Well offline for repairs.	☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/25/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:184 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/25/20 10:30	6/25/20 10:32	0.03			☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/25/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: Wellfield

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - April 1, 2020 Through September 30, 2020

Identify Well & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Well ID Number:129 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/25/20 10:45	6/25/20 10:47	0.03	1 hours	Well offline for repairs.	☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/25/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:129 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/25/20 12:05	6/25/20 12:07	0.03			☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/25/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:154 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/26/20 9:05	6/26/20 9:07	0.03	14 hours	Well offline for repairs.	☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/26/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:154 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/26/20 23:00	6/26/20 23:02	0.03			☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/26/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:215 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/26/20 11:15	6/26/20 11:17	0.03	2 hours	Well offline for repairs.	☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/26/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:215 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/26/20 13:00	6/26/20 13:02	0.03			☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/26/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:185 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/26/20 13:10	6/26/20 13:12	0.03	2 hours	Well offline for repairs.	☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/26/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:185 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/26/20 14:45	6/26/20 14:47	0.03			☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/26/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:193 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/29/20 11:00	6/29/20 11:02	0.03	23 hours	Well offline for repairs.	☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/29/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:193 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/30/20 9:30	6/30/20 9:32	0.03			☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/30/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:235 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/26/20 13:15	6/26/20 13:17	0.03	NA	New well startup pursuant to Permit Condition 6188, Part 2	☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	6/26/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:235 ☐ Startup Event ☐ Shutdown Event ☐ Malfunction Event						☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities		☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:244 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	7/2/20 15:09	7/2/20 15:11	0.03	NA	New well startup pursuant to Permit Condition 6188, Part 2	☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	7/2/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:244 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event						☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities		☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:238 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/30/20 17:20	6/30/20 17:22	0.03	20 hours	Well offline for repairs.	☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	6/30/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:238 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	7/1/20 13:00	7/1/20 13:02	0.03			☐ 113: Inspection and Maintenance ☐ 116: Well Raising ☒ 117: Gas Collection ☒ 118: Construction Activities	7/1/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:185 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/21/20 15:00	8/21/20 15:02	0.03	115 hours (5 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/21/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:185 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/26/20 10:15	8/26/20 10:17	0.03			☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/26/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: Wellfield

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - April 1, 2020 Through September 30, 2020

Identify Well & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Well ID Number:131 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/30/20 11:00	6/30/20 11:02	0.03	23 hours	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	6/30/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:131 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	7/1/20 9:30	7/1/20 9:32	0.03			☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	7/1/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:147 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	7/17/20 16:30	7/17/20 16:32	0.03	837 hours (35 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	7/17/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:147 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/21/20 13:30	8/21/20 13:32	0.03			☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/21/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:185 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/21/20 15:00	8/21/20 15:02	0.03	115 hours (5 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/21/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:185 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/26/20 10:15	8/26/20 10:17	0.03			☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/26/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:124 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	5/31/20 12:30	5/31/20 12:32	0.03	2,305 hours (96 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/31/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:124 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/4/20 13:25	9/4/20 13:27	0.03			☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/4/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:191 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	5/11/20 11:30	5/11/20 11:32	0.03	2,786 hours (116 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/11/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:191 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/4/20 13:25	9/4/20 13:27	0.03			☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/4/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:213 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/2/20 8:30	9/2/20 8:32	0.03	487 hours (20 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/2/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:213 ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/22/20 15:15	9/22/20 15:17	0.03			☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/22/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:149 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/26/20 10:15	8/26/20 10:17	0.03	854 hours (36 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/26/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:149 ☐ Startup Event ☐ Shutdown Event ☐ Malfunction Event	Pending					☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	Pending	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:237 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/26/20 11:30	8/26/20 11:32	0.03	852 hours (36 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/26/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:237 ☐ Startup Event ☐ Shutdown Event ☐ Malfunction Event	Pending					☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	Pending	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:214 ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/14/20 11:10	9/14/20 11:12	0.03	397 hours (17 days)	Well Located in Active Filling Area. Well Raised.	☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/14/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Well ID Number:214 ☐ Startup Event ☐ Shutdown Event ☐ Malfunction Event	Pending					☐ 113: Inspection and Maintenance ☒ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	Pending	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	

N/A = Not Applicable

(a) **STANDARD OPERATING PROCEDURES**

Shutdown

Procedure No.	Procedure
1.	Ensure that there is no unsafe conditions present, contact manager immediately
2.	Initiate shutdown sequence below by one or more of the following (Note date and time in Section 1 of form above)
	a. Press Emergency Stop if necessary
	b. Close On/Off switch(es) or Push On/Off button(s)
	c. Close adjacent valves if necessary
3.	Observe that system achieves normal shutdown ranges for levels, pressures, and temperatures (Note date and time in Section 2 of form above)

Startup

Procedure No.	Procedure
1.	Ensure that there is no unsafe conditions present
2.	Ensure that the system is ready to start by one of the following:
	a. Valves are in correct position
	b. Levels, pressures, and temperatures are within normal starting range
	c. Alarms are cleared
	d. Power is on and available to control panel and ready to energized equipment.
	e. Emergency stop is de-energized
3.	Initiate start sequence (Note time and date in section 1 of form above)
4.	Observe that system achieves normal shutdown ranges for levels, pressures, and temperatures (Note time and date in Section 2 of form above)

Malfunction

EQUIPMENT	PURPOSE	MALFUNCTION EVENT	COMMON CAUSES	PROCEDURE NO. -TYPICAL RESPONSE ACTIONS
LFG Collection and Control System				
Blower or Other Gas Mover Equipment	Applies vacuum to wellfield to extract LFG and transport to control device	Loss of LFG Flow/Blower Malfunction	-Flame arrestor fouling/deterioration -Automatic valve problems -Blower failure (e.g., belt, motor, impeller, coupling, seizing, etc.) -Loss of power -Extraction piping failure -Condensate knock-out problems -Extraction piping blockages	1. Repair breakages in extraction piping 2. Clean flame arrestor 3. Repair blockages in extraction piping 4. Verify automatic valve operation, compressed air/nitrogen supply 5. Notify power utility, if appropriate 6. Provide/utilize auxiliary power source, if necessary 7. Repair Settlement in Collection Piping 8. Repair Blower 9. Activate back-up blower, if available 10. Clean knock-up pot/demister 11. Drain knock-out pot
Extraction Wells and Collection Piping	Conduits for extractions and movement of LFG flow	Collection well and pipe failures	-Break/crack in header or lateral piping -Leaks at wellheads, valves, flanges, Test ports, seals, couplings, etc. -Collection piping blockages -Problems due to settlement (e.g. pipe separation, deformation, development of low	12. Repair leaks or breaks in lines or wellheads 13. Follow procedures for loss of LFG flow/blower malfunction 14. Repair blockages in collection piping 15. Repair settlement in collection piping 16. Re-install, repair, or replace piping
Blower or Other Gas Mover Equipment And Control Device	Collection and control of LFG	Loss of electrical power	- Force majeure/Act of God (e.g., lightning, flood, earthquake, etc.) -Area-wide or local blackout or brown-out -Interruption in service (e.g. blown service fuse) -Electrical line failure -Breaker trip -Transformer failure -Motor starter failure/trip -Overdraw of power -Problems in electrical panel -Damage to electrical equipment from on-site operations	17. Check/reset breaker 18. Check/repair electrical panel components 19. Check/repair transformer 20. Check/repair motor starter 21. Check/repair electrical line 22. Test amperage to various equipment 23. Contact electricity supplier 24. Contact/contract electrician 25.Provide auxiliary power (if necessary)
LFG Control Device	Combusts LFG	Low temperature conditions at control device	-Problems with temperature -monitoring -Problems/failure of -thermocouple and/or thermocouple wiring -Change of LFG flow -Change of LFG quality -Problems with air louvers -Problems with air/fuel controls -Change in atmospheric conditions	26. Check/repair temperature monitoring equipment 27. Check/repair thermocouple and/or wiring 28. Follow procedures for loss of flow/blower malfunction 29. Check/adjust louvers 30. Check/adjust air/fuel controls
LFG Control Device	Combusts LFG	Loss of Flame	-Problems/failure of thermocouple -Loss/change of LFG flow -Loss/change of LFG quality -Problems with air/fuel controls -Problems/failure of flame sensor -Problems with temperature monitoring	31. Check/repair temperature monitoring equipment 32. Check/repair thermocouple 33. Follow procedures for loss of flow/blower malfunction 34. Check/adjust air/fuel controls 35. Check/adjust/repair flame sensor 36. Check/adjust LFG collectors
Flow Monitoring/ Recording Device	Measures and records gas flow from collection system to control	Malfunctions of Flow Monitoring/Recording Device	-Problems with orifice plate, pitot tube, or other in-line flow measuring device -Problems with device controls and/or wiring -Problems with chart recorder	37. Check/adjust/repair flow measuring device and/or wiring 38. Check/repair chart recorder 39. Replace paper in chart recorder
Temperature Monitoring/ Recording Device	Monitors and records combustion temperature of enclosed combustion device	Malfunctions of Temperature Monitoring/Recording Device	-Problems with thermocouple -Problems with device controls and/or wiring -Problems with chart recorder	40. Check/adjust/repair thermocouple 41. Check/adjust/repair controller and/or wiring 42. Check/adjust/repair electrical panel components 43. Check/repair chart recorder 44. Replace paper in chart recorder
Control Device	Combusts LFG	Other Control Device Malfunctions	-Control device smoking (i.e. visible emissions) -Problems with flare insulation -Problems with pilot light system -Problems with air louvers -Problems with air/fuel controllers -Problems with thermocouple -Problems with burners -Problems with flame arrester -Alarmed malfunction conditions not covered above -Unalarmed conditions discovered during inspection not covered above	45. Site-specific diagnosis procedures 46. Site-specific responses actions based on diagnosis 47. Open manual louvers 48. Clean pitot orifice 49. Clean/drain flame arrestor 50. Refill propane supply 51. Check/repair pilot sparking system

(b) For each permit limit exceedance complete an "SSM Plan Departure Form".

APPENDIX E

FLARE SSM LOG

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: A-14 Flare

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - From April 1, 2020 through September 30, 2020

Identify Flare & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/06/20 11:48	4/06/20 11:52	0.07	0.27	Flare shutdown during startup of the condensate system. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/6/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/06/20 12:04	4/06/20 12:08	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/6/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/08/20 11:12	4/08/20 11:16	0.07	0.07	Flare shutdown for inspection and to clean flowmeter probe. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/8/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/08/20 11:16	4/08/20 11:20	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/8/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/08/20 11:30	4/08/20 11:34	0.07	0.70	Flare shutdown for inspection and to clean flowmeter probe. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/8/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/08/20 12:12	4/08/20 12:16	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/8/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/10/20 12:36	4/10/20 12:40	0.07	0.73	Flare shutdown for inspection and to clean flowmeter probe. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/10/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/10/20 13:20	4/10/20 13:24	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/10/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/22/20 13:54	4/22/20 13:58	0.07	1.77	Flare shutdown during inspection of condensate system at Flare A9. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/22/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/22/20 15:40	4/22/20 15:44	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/22/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/23/20 10:00	4/23/20 10:04	0.07	3.57	Flare shutdown during KOP inspection and maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/23/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/23/20 13:34	4/23/20 13:38	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/23/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/24/20 14:02	4/24/20 14:06	0.07	0.30	Flare shutdown for inspection and to clean flowmeter probe. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/24/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/24/20 14:20	4/24/20 14:24	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/24/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/28/20 08:46	4/28/20 08:50	0.07	7.63	Flare shutdown during startup and pre-test inspection of Flare A9. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/28/20 16:24	4/28/20 16:28	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/29/20 08:54	4/29/20 08:58	0.07	8.10	Flare shutdown during source test on Flare A9. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/29/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/29/20 17:00	4/29/20 17:04	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/29/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: A-14 Flare

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - From April 1, 2020 through September 30, 2020

Identify Flare & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	5/21/20 10:20	5/21/20 10:24	0.07	5.07	Flare shutdown during startup of Flare A9. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/21/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	5/21/20 15:24	5/21/20 15:28	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/21/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	5/27/20 11:00	5/27/20 11:04	0.07	25.80	Flare shutdown to start Flare A9 and to check blower performance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/27/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	5/28/20 12:48	5/28/20 12:52	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/11/20 12:08	6/11/20 12:12	0.07	0.70	Flare shutdown during startup of Flare A9 during blower inspection by Koffler. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	6/11/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/11/20 12:50	6/11/20 12:54	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	6/11/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/29/20 08:26	6/29/20 08:30	0.07	3.90	Flare shutdown during KOP inspection and maintenance. Replaced demister pad. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	6/29/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/29/20 12:20	6/29/20 12:24	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	6/29/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	7/06/20 13:48	7/06/20 13:52	0.07	0.37	Flare shutdown to clean flowmeter probe. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	7/6/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	7/06/20 14:10	7/06/20 14:14	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	7/6/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	7/12/20 08:52	7/12/20 08:56	0.07	2.43	Flare shutdown caused due to clogged filter on compressor. Filter was cleaned. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	7/12/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	7/12/20 11:18	7/12/20 11:22	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	7/12/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/10/20 09:46	8/10/20 09:50	0.07	1.60	Flare shutdown during restart on flare A9. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/10/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/10/20 11:22	8/10/20 11:26	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/10/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/12/20 08:54	8/12/20 08:58	0.07	25.83	Flare shutdown to test run flare A9 and blower capacity. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/12/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/13/20 10:44	8/13/20 10:48	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/13/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/31/20 09:56	8/31/20 10:00	0.07	3.50	Flare shutdown during restart flare A9. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/31/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/31/20 13:26	8/31/20 13:30	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/31/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/31/20 13:30	8/31/20 13:34	0.07	0.07	Flare shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/31/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/31/20 13:34	8/31/20 13:38	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/31/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: A-14 Flare

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - From April 1, 2020 through September 30, 2020

Identify Flare & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/31/20 13:38	8/31/20 13:42	0.07	0.17	Flare shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/31/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/31/20 13:48	8/31/20 13:52	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/31/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/31/20 13:52	8/31/20 13:56	0.07	0.10	Flare shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/31/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/31/20 13:58	8/31/20 14:02	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/31/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/02/20 09:16	9/02/20 09:20	0.07	0.80	Flare shutdown during inspection and maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/2/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/02/20 10:04	9/02/20 10:08	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/2/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/08/20 10:40	9/08/20 10:44	0.07	2.60	Flare shutdown during inspection and maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/08/20 13:16	9/08/20 13:20	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/08/20 14:48	9/08/20 14:52	0.07	0.10	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/08/20 14:54	9/08/20 14:58	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/08/20 15:02	9/08/20 15:06	0.07	0.07	Flare shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/08/20 15:06	9/08/20 15:10	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/10/20 10:38	9/10/20 10:42	0.07	2.27	Flare shutdown during inspection and maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/10/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/10/20 12:54	9/10/20 12:58	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/10/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/15/20 11:18	9/15/20 11:22	0.07	0.10	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/15/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/15/20 11:24	9/15/20 11:28	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/15/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/15/20 11:40	9/15/20 11:44	0.07	0.10	Flare shutdown during inspection and maintenance. Flare was inspected during the day.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/15/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/15/20 11:46	9/15/20 11:50	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/15/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/16/20 13:36	9/16/20 13:40	0.07	0.10	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/16/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/16/20 13:42	9/16/20 13:46	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/16/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: A-14 Flare

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - From April 1, 2020 through September 30, 2020

Identify Flare & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/16/20 16:56	9/16/20 17:00	0.07	0.10	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/16/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/16/20 17:02	9/16/20 17:06	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/16/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/17/20 11:04	9/17/20 11:08	0.07	0.83	Flare shutdown during inspection and maintenance. Flare was restarted. Flare was inspected during the day.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/17/20 11:54	9/17/20 11:58	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/17/20 21:32	9/17/20 21:36	0.07	0.13	Flare shutdown due to low temperature alarm. Flare was restarted. Flare was inspected during the day.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/17/20 21:40	9/17/20 21:44	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/17/20 21:56	9/17/20 22:00	0.07	0.10	Flare shutdown during startup sequence. Flare was inspected and restarted during the day.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/17/20 22:02	9/17/20 22:06	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/17/20 22:18	9/17/20 22:22	0.07	3.03	Flare shutdown during startup sequence. Flare was restarted. Flare was inspected during the day.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/18/20 01:20	9/18/20 01:24	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/18/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/18/20 11:06	9/18/20 11:10	0.07	0.07	Flare shutdown due to low temperature alarm while working on louvers. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/18/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/18/20 11:10	9/18/20 11:14	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/18/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/18/20 11:32	9/18/20 11:36	0.07	0.07	Flare shutdown due to low temperature alarm while working on louvers. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/18/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/18/20 11:36	9/18/20 11:40	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/18/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/18/20 12:02	9/18/20 12:06	0.07	0.07	Flare shutdown due to low temperature alarm while working on louvers. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/18/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/18/20 12:06	9/18/20 12:10	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/18/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/18/20 12:14	9/18/20 12:18	0.07	0.10	Flare shutdown due to low temperature alarm while working on louvers. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/18/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/18/20 12:20	9/18/20 12:24	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/18/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-14 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/22/20 12:10	9/22/20 12:14	0.07	47.63	Flare shutdown to run Flare A9. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/22/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-14 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/24/20 11:48	9/24/20 11:52	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/24/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	

TOTAL DOWNTIME April 1, 2020 to September 30, 2020(HOURS):	150.9
TOTAL DOWNTIME April 1, 2020 to September 30, 2020(HOURS):	4392.0
TOTAL RUNTIME April 1, 2020 to September 30, 2020(HOURS):	4241.1
TOTAL HOURS April 1, 2020 to September 30, 2020(HOURS):	4392.0

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: A-9 Flare

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - From April 1, 2020 through September 30, 2020

Identify Flare & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/01/20 00:00	4/01/20 00:04	0.07	518.93	Flare was restarted as part of startup test and annual inspection. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/1/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/22/20 14:56	4/22/20 15:00	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/22/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/22/20 15:00	4/22/20 15:04	0.07	0.10	Flare shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/22/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/22/20 15:06	4/22/20 15:10	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/22/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/22/20 15:48	4/22/20 15:52	0.07	18.97	Flare was restarted as part of startup test and annual inspection. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/22/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/23/20 10:46	4/23/20 10:50	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/23/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/23/20 13:34	4/23/20 13:38	0.07	115.93	Flare was restarted during pre source test inspection. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/23/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/28/20 09:30	4/28/20 09:34	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/28/20 09:34	4/28/20 09:38	0.07	0.10	Flare shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/28/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/28/20 09:40	4/28/20 09:44	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/28/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/28/20 12:28	4/28/20 12:32	0.07	1.17	Flare was restarted for pre source test inspection. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/28/20 13:38	4/28/20 13:42	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/28/20 13:42	4/28/20 13:46	0.07	0.10	Flare shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/28/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/28/20 13:48	4/28/20 13:52	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/28/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/28/20 15:06	4/28/20 15:10	0.07	0.43	Flare was restarted for pre test inspection. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/28/20 15:32	4/28/20 15:36	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/28/20 16:28	4/28/20 16:32	0.07	17.20	Flare was started during annual source test. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	4/29/20 09:40	4/29/20 09:44	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/29/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: A-9 Flare

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - From April 1, 2020 through September 30, 2020

Identify Flare & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	4/29/20 17:12	4/29/20 17:16	0.07	521.67	Flare was shutdown after source test and to restart Flare A14. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	4/29/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	5/21/20 10:52	5/21/20 10:56	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/21/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	5/21/20 14:32	5/21/20 14:36	0.07	141.40	Flare shutdown after inspection. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/21/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	5/27/20 11:56	5/27/20 12:00	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/27/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	5/28/20 13:00	5/28/20 13:04	0.07	335.73	Flare started during blower inspection. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	5/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	6/11/20 12:44	6/11/20 12:48	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	6/11/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	6/11/20 12:48	6/11/20 12:52	0.07	1,437.60	Flare was shutdown during this period. Attempted to restart in conjunction with flare A14. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	6/11/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/10/20 10:24	8/10/20 10:28	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/10/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/10/20 10:32	8/10/20 10:36	0.07	47.00	Flare shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/10/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/12/20 09:32	8/12/20 09:36	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/12/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/12/20 09:36	8/12/20 09:40	0.07	0.07	Flare shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/12/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/12/20 09:40	8/12/20 09:44	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/12/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/12/20 09:54	8/12/20 09:58	0.07	0.10	Flare shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/12/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/12/20 10:00	8/12/20 10:04	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/12/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/12/20 10:48	8/12/20 10:52	0.07	0.17	Flare shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/12/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/12/20 10:58	8/12/20 11:02	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/12/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/12/20 11:02	8/12/20 11:06	0.07	0.07	Flare was started to test run during this period. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/12/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/12/20 11:06	8/12/20 11:10	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/12/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/13/20 10:54	8/13/20 10:58	0.07	432.30	Flare was shutdown during inspection and maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/13/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/31/20 11:12	8/31/20 11:16	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/31/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/31/20 11:16	8/31/20 11:20	0.07	0.13	Flare was shutdown during inspection and maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/31/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	8/31/20 11:24	8/31/20 11:28	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/31/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: A-9 Flare

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - From April 1, 2020 through September 30, 2020

Identify Flare & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	8/31/20 11:30	8/31/20 11:34	0.07	191.80	Flare was shutdown during inspection and maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	8/31/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/08/20 11:18	9/08/20 11:22	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/08/20 11:24	9/08/20 11:28	0.07	0.07	Flare was shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/08/20 11:28	9/08/20 11:32	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/08/20 11:44	9/08/20 11:48	0.07	0.13	Flare was shutdown during KOP maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/08/20 11:52	9/08/20 11:56	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/08/20 11:58	9/08/20 12:02	0.07	0.07	Flare was shutdown during KOP maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/08/20 12:02	9/08/20 12:06	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/08/20 19:44	9/08/20 19:48	0.07	0.27	Flare was shutdown during KOP maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/08/20 20:00	9/08/20 20:04	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/08/20 20:28	9/08/20 20:32	0.07	39.10	Flare was shutdown for inspection and maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/8/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/10/20 11:34	9/10/20 11:38	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/10/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/10/20 11:46	9/10/20 11:50	0.07	0.23	Flare was shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/10/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/10/20 12:00	9/10/20 12:04	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/10/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/10/20 12:04	9/10/20 12:08	0.07	0.13	Flare was shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/10/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/10/20 12:12	9/10/20 12:16	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/10/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/14/20 12:20	9/14/20 12:24	0.07	0.67	Flare was shutdown during KOP maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/14/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/14/20 13:00	9/14/20 13:04	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/14/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/14/20 13:04	9/14/20 13:08	0.07	0.10	Flare was shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/14/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/14/20 13:10	9/14/20 13:14	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/14/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: A-9 Flare

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - From April 1, 2020 through September 30, 2020

Identify Flare & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/15/20 12:26	9/15/20 12:30	0.07	1.17	Flare was shutdown for inspection and maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/15/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/15/20 13:36	9/15/20 13:40	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/15/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/16/20 16:18	9/16/20 16:22	0.07	0.90	Flare was shutdown during KOP maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/16/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/16/20 17:12	9/16/20 17:16	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/16/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/16/20 17:16	9/16/20 17:20	0.07	0.07	Flare was shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/16/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/16/20 17:20	9/16/20 17:24	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/16/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/17/20 10:08	9/17/20 10:12	0.07	0.13	Flare was shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/17/20 10:16	9/17/20 10:20	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/17/20 10:20	9/17/20 10:24	0.07	0.10	Flare was shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/17/20 10:26	9/17/20 10:30	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/17/20 11:42	9/17/20 11:46	0.07	0.17	Flare was shutdown due to low temperature alarm. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/17/20 11:52	9/17/20 11:56	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/17/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/18/20 10:16	9/18/20 10:20	0.07	0.73	Flare was shutdown during KOP maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/18/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/18/20 11:00	9/18/20 11:04	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/18/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/21/20 08:50	9/21/20 08:54	0.07	0.20	Flare was shutdown during KOP maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/21/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/21/20 09:02	9/21/20 09:06	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/21/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/21/20 09:18	9/21/20 09:22	0.07	2.03	Flare was shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/21/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/21/20 11:20	9/21/20 11:24	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/21/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/22/20 10:32	9/22/20 10:36	0.07	1.20	Flare was shutdown during KOP maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/22/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/22/20 11:44	9/22/20 11:48	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/22/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: A-9 Flare

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - From April 1, 2020 through September 30, 2020

Identify Flare & Check Applicable Event	(1) Start of Event Date and Time	(2) End of Event Date and Time	(3) Duration of Event (Hours)	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date Form Completed	(8) Type of Event (Startup and Shutdown Events Only)	(9) Procedures Used	(10) Did Steps Taken Vary From Section 9?	(11) Did Event Cause Any Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/22/20 11:48	9/22/20 11:52	0.07	0.13	Flare was shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/22/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/22/20 11:56	9/22/20 12:00	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/22/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/24/20 03:42	9/24/20 03:46	0.07	6.77	Flare was shutdown due to low temperature alarm. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/24/2020	☐ Manual (Go to Section 9) ☒ Automatic (Go to Section 11)	Procedure No. 1 to 3	☐ Yes (Go to Section 11) ☐ No (Stop)	☐ Yes (Go to Section 12) ☒ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/24/20 10:28	9/24/20 10:32	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/24/2020	☒ Manual (Go to Section 9) ☐ Automatic (Go to Section 11)	Procedure No. 1 to 4	☐ Yes (Go to Section 11) ☒ No (Stop)	☐ Yes (Go to Section 12) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/28/20 12:00	9/28/20 12:04	0.07	0.37	Flare was shutdown during KOP maintenance. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/28/20 12:22	9/28/20 12:26	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☐ Startup Event ☒ Shutdown Event ☐ Malfunction Event	9/28/20 12:26	9/28/20 12:30	0.07	1.30	Flare was shutdown during startup sequence. Flare was inspected and restarted.	☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 3	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	
Component: A-9 Flare ☒ Startup Event ☐ Shutdown Event ☐ Malfunction Event	9/28/20 13:44	9/28/20 13:48	0.07			☒ 113: Inspection and Maintenance ☐ 116: Well Raising ☐ 117: Gas Collection ☐ 118: Construction Activities	9/28/2020	☒ Manual (Go to Section 8) ☐ Automatic (Go to Section 10)	Procedure 1 to 4	☐ Yes (Go to Section 10) ☒ No (Stop)	☐ Yes (Go to Section 11) ☐ No (Stop)	

TOTAL DOWNTIME April 1, 2020 to September 30, 2020(HOURS):	3837.0
TOTAL DOWNTIME April 1, 2020 to September 30, 2020(HOURS):	4392.0
TOTAL RUNTIME April 1, 2020 to September 30, 2020(HOURS):	555.0
TOTAL HOURS April 1, 2020 to September 30, 2020(HOURS):	4392.0

(a) **STANDARD OPERATING PROCEDURES**

Shutdown

Procedure No.	Procedure
1.	Ensure that there is no unsafe conditions present, contact manager immediately
2.	Initiate shutdown sequence below by one or more of the following (Note date and time in Section 1 of form above)
	a. Press Emergency Stop if necessary
	b. Close On/Off switch(es) or Push On/Off button(s)
	c. Close adjacent valves if necessary
3.	Observe that system achieves normal shutdown ranges for levels, pressures, and temperatures (Note date and time in Section 2 of form above)

Startup

Procedure No.	Procedure
1.	Ensure that there is no unsafe conditions present
2.	Ensure that the system is ready to start by one of the following:
	a. Valves are in correct position
	b. Levels, pressures, and temperatures are within normal starting range
	c. Alarms are cleared
	d. Power is on and available to control panel and ready to energized equipment.
	e. Emergency stop is de-energized
3.	Initiate start sequence (Note time and date in section 1 of form above)
4.	Observe that system achieves normal shutdown ranges for levels, pressures, and temperatures (Note time and date in Section 2 of form above)

Malfunction

EQUIPMENT	PURPOSE	MALFUNCTION EVENT	COMMON CAUSES	PROCEDURE NO. -TYPICAL RESPONSE ACTIONS
LFG Collection and Control System				
Blower or Other Gas Mover Equipment	Applies vacuum to wellfield to extract LFG and transport to control device	Loss of LFG Flow/Blower Malfunction	-Flame arrestor fouling/deterioration -Automatic valve problems -Blower failure (e.g., belt, motor, impeller, coupling, seizing, etc.) -Loss of power -Extraction piping failure -Condensate knock-out problems -Extraction piping blockages	1. Repair breakages in extraction piping 2. Clean flame arrestor 3. Repair blockages in extraction piping 4. Verify automatic valve operation, compressed air/nitrogen supply 5. Notify power utility, if appropriate 6. Provide/utilize auxiliary power source, if necessary 7. Repair Settlement in Collection Piping 8. Repair Blower 9. Activate back-up blower, if available 10. Clean knock-up pot/demister 11. Drain knock-out pot
Extraction Wells and Collection Piping	Conduits for extractions and movement of LFG flow	Collection well and pipe failures	-Break/crack in header or lateral piping -Leaks at wellheads, valves, flanges, Test ports, seals, couplings, etc. -Collection piping blockages -Problems due to settlement (e.g. pipe separation, deformation, development of low	12. Repair leaks or breaks in lines or wellheads 13. Follow procedures for loss of LFG flow/blower malfunction 14. Repair blockages in collection piping 15. Repair settlement in collection piping 16. Re-install, repair, or replace piping
Blower or Other Gas Mover Equipment And Control Device	Collection and control of LFG	Loss of electrical power	- Force majeure/Act of God (e.g., lightning, flood, earthquake, etc.) -Area-wide or local blackout or brown-out -Interruption in service (e.g. blown service fuse) -Electrical line failure -Breaker trip -Transformer failure -Motor starter failure/trip -Overdraw of power -Problems in electrical panel -Damage to electrical equipment from on-site operations	17. Check/reset breaker 18. Check/repair electrical panel components 19. Check/repair transformer 20. Check/repair motor starter 21. Check/repair electrical line 22. Test amperage to various equipment 23. Contact electricity supplier 24. Contact/contract electrician 25.Provide auxiliary power (if necessary)
LFG Control Device	Combusts LFG	Low temperature conditions at control device	-Problems with temperature -monitoring -Problems/failure of -thermocouple and/or thermocouple wiring -Change of LFG flow -Change of LFG quality -Problems with air louvers -Problems with air/fuel controls -Change in atmospheric conditions	26. Check/repair temperature monitoring equipment 27. Check/repair thermocouple and/or wiring 28. Follow procedures for loss of flow/blower malfunction 29. Check/adjust louvers 30. Check/adjust air/fuel controls
LFG Control Device	Combusts LFG	Loss of Flame	-Problems/failure of thermocouple -Loss/change of LFG flow -Loss/change of LFG quality -Problems with air/fuel controls -Problems/failure of flame sensor -Problems with temperature monitoring	31. Check/repair temperature monitoring equipment 32. Check/repair thermocouple 33. Follow procedures for loss of flow/blower malfunction 34. Check/adjust air/fuel controls 35. Check/adjust/repair flame sensor 36. Check/adjust LFG collectors
Flow Monitoring/ Recording Device	Measures and records gas flow from collection system to control	Malfunctions of Flow Monitoring/Recording Device	-Problems with orifice plate, pitot tube, or other in-line flow measuring device -Problems with device controls and/or wiring -Problems with chart recorder	37. Check/adjust/repair flow measuring device and/or wiring 38. Check/repair chart recorder 39. Replace paper in chart recorder
Temperature Monitoring/ Recording Device	Monitors and records combustion temperature of enclosed combustion device	Malfunctions of Temperature Monitoring/Recording Device	-Problems with thermocouple -Problems with device controls and/or wiring -Problems with chart recorder	40. Check/adjust/repair thermocouple 41. Check/adjust/repair controller and/or wiring 42. Check/adjust/repair electrical panel components 43. Check/repair chart recorder 44. Replace paper in chart recorder
Control Device	Combusts LFG	Other Control Device Malfunctions	-Control device smoking (i.e. visible emissions) -Problems with flare insulation -Problems with pilot light system -Problems with air louvers -Problems with air/fuel controllers -Problems with thermocouple -Problems with burners -Problems with flame arrester -Alarmed malfunction conditions not covered above -Unalarmed conditions discovered during inspection not covered above	45. Site-specific diagnosis procedures 46. Site-specific responses actions based on 47. Open manual louvers 48. Clean pitot orifice 49. Clean/drain flame arrestor 50. Refill propane supply 51. Check/repair pilot sparking system

(b) For each permit limit exceedance complete an "SSM Plan Departure Form".

APPENDIX F

TEMPERATURE DEVIATION / INOPERATIVE MONITOR / MISSING DATA REPORT

Guadalupe Recycling & Disposal Facility, San Jose, CA

TEMPERATURE DEVIATION/ INOPERATIVE MONITOR/MISSING DATA REPORT - April 1, 2020 through September 30, 2020

Flare A-9 and A-14

REPORT PREPARED BY: Rajan Phadnis **DATE:** October 1, 2020

TEMPERATURE SENSING DEVICE: Thermocouple **MODEL:** Thermo-Electric

START DATE & TIME	END DATE & TIME	DURATION (HOURS)	TEMP (°F)/ FLOW (scfm)	CAUSE	EXPLANATION	ACTION TAKEN
No deviations, inoperative monitors, or missing data occurred in April 2020						
No deviations, inoperative monitors, or missing data occurred in May 2020						
No deviations, inoperative monitors, or missing data occurred in June 2020						
No deviations, inoperative monitors, or missing data occurred in July 2020						
No deviations, inoperative monitors, or missing data occurred in August 2020						
No deviations, inoperative monitors, or missing data occurred in September 2020						

NOTES: °F= degrees Fahrenheit

scfm= standard cubic feet per minute

COMMENTS: The A-9 Flare combustion zone 3-hour average temperature did not drop below the 1,450 degrees Fahrenheit (°F) limit, as required by Title V Permit Condition Number 6188 Part 8, during the reporting period while the flare was in operation.

The A-9 Flare combustion zone 3-hour average temperature did not drop below the 1,593°F limit established in the April 29, 2020 Annual Source Test and , pursuant to Title V Permit A3294 Condition 6188 Part 8, during the reporting period while the flare was in operation.

The A-14 Flare combustion zone 3-hour average temperature did not drop below the 1,608°F limit established in the February 26, 2020 Annual Source Test, pursuant to as required by Authority to Construct.

APPENDIX G

COVER INTEGRITY MONITORING REPORTS

Monthly Cover Monitoring

LOCATION: Guadalupe Rubbish Disposal Company, Inc.
INSPECTION DATE: April 30, 2020
TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation		X	
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	
Surface cracking		X	
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:

Location Description (cell and near-by wells)	**Date of Repair**	**Description of Repair (add soil, water)**

Note: Monthly cover integrity monitoring is performed pursuant to BAAQMD Regulation 8-34-501.4

Monthly Cover Monitoring

LOCATION: Guadalupe Rubbish Disposal Company, Inc.
INSPECTION DATE: May 29, 2020
TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation		X	
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	
Surface cracking		X	
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:

Location Description (cell and near-by wells)	**Date of Repair**	**Description of Repair (add soil, water)**

Note: Monthly cover integrity monitoring is performed pursuant to BAAQMD Regulation 8-34-501.4

Monthly Cover Monitoring

LOCATION: Guadalupe Rubbish Disposal Company, Inc.
INSPECTION DATE: June 29, 2020
TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation		X	
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	
Surface cracking		X	
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:

Location Description (cell and near-by wells)	**Date of Repair**	**Description of Repair (add soil, water)**

Note: Monthly cover integrity monitoring is performed pursuant to BAAQMD Regulation 8-34-501.4

Monthly Cover Monitoring

LOCATION: Guadalupe Rubbish Disposal Company, Inc.
INSPECTION DATE: July 29, 2020
TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation		X	
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	
Surface cracking		X	
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:

Location Description (cell and near-by wells)	**Date of Repair**	**Description of Repair (add soil, water)**

Note: Monthly cover integrity monitoring is performed pursuant to BAAQMD Regulation 8-34-501.4

Monthly Cover Monitoring

LOCATION: Guadalupe Rubbish Disposal Company, Inc.
INSPECTION DATE: August 27, 2020
TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation		X	
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	
Surface cracking		X	
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:

Location Description (cell and near-by wells)	**Date of Repair**	**Description of Repair (add soil, water)**

Note: Monthly cover integrity monitoring is performed pursuant to BAAQMD Regulation 8-34-501.4

Monthly Cover Monitoring

LOCATION: Guadalupe Rubbish Disposal Company, Inc.
INSPECTION DATE: September 30, 2020
TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		X	
Dead vegetation		X	
Erosion on cap system		X	
Erosion on side slopes		X	
Ponding of water on cap		X	
Surface cracking		X	
Acceptable vegetation	X		
Exposed waste		X	

REPAIR AREAS:

Location Description (cell and near-by wells)	Date of Repair	Description of Repair (add soil, water)

Note: Monthly cover integrity monitoring is performed pursuant to BAAQMD Regulation 8-34-501.4

APPENDIX H

SURFACE EMISSIONS AND COMPONENT LEAK MONITORING REPORTS

Guadalupe Rubbish
Disposal Co., Inc.
P.O. Box 20957
San Jose, CA 95160

September 11, 2020

Ms. Becky Azevedo
Guadalupe Rubbish Disposal Co., Inc
15999 Guadalupe Mines Road
San Jose, CA 95120

Re: Third Quarter 2020 Surface Emissions and Component Leak Monitoring Report for Guadalupe Recycling & Disposal Facility

Dear Ms. Azevedo:

This monitoring report for **"Guadalupe Rubbish Disposal Co., Inc. (GRDC)"** contains the results of the Third Quarter 2020 Integrated and Instantaneous Surface Emissions Monitoring (SEM) and Component Leak Monitoring. Initial surface emissions monitoring was performed by Roberts Environmental Services, LLC. (RES). Re-monitoring of surface emissions and component leak monitoring was conducted by RES and/or Waste Management (WM) personnel.

APPLICABLE REQUIREMENTS

The monitoring discussed in this report was conducted in accordance with the following requirements:

Surface Emission Monitoring (SEM)

- New Source Performance Standard (NSPS), Title 40 of the Code of Federal Regulations (CFR) §60.755 (c) and (d), 40 CFR 60, Appendix A Method 21, promulgated by the United States Environmental Protection Agency (USEPA).

- California Code of Regulations (CCR) Title 17, Subchapter 10, Article 4, Subarticle 6, §95460 to §95476, known as the Assembly Bill 32 (AB32) landfill methane rule (LMR).

- Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 303 (Landfill Surface Requirements) and Section 607 (Landfill Surface Inspection Procedures).

Component Leak

- BAAQMD Regulation 8, Rule 34, Section 301 (Landfill Gas Collection and Emission Control System Requirements) and Section 602 (Collection and Control System Leak Inspection procedures).

- California Code of Regulations (CCR) Title 17, Subchapter 10, Article 4, Subarticle 6, §95464, known as the AB32 LMR.

GRDC Plan and Alternative Compliance Measures

An Alternative Compliance Option (ACO) Request was submitted to the California Air Resources Board (CARB) on May 16, 2011. After receipt of comments, this ACO was amended, restated, and submitted to BAAQMD on July 1, 2016. SEM and Component Leak monitoring was conducted per the methods outlined in the July 1, 2016 ACO.

PROCEDURES

General

The surface of the GRDC disposal area has been divided into one-hundred-and-five (105), approximately 50,000 square foot monitoring grids. Of these grids, eleven (11) currently have no waste in place. The entire landfill surface is monitored with the exception of active portions of the Landfill, slope areas, and as requested in the approved ACO, areas containing only asbestos-containing waste, inert waste and/or non-decomposable waste which are excluded for safety as allowed by CCR Title 17 §95466.

Field personnel walked the surface of the landfill following the walking pattern as depicted the 2011 GRDC AB-32 SEM Plan, which traverses each monitoring grid. Additionally, in accordance with the provisions of 40 CFR 60.753(d) and 60.755(c)(1-3), the entire perimeter of the landfill surface was monitored. During the event, special attention was given to monitoring unusual cover conditions (stressed vegetation, cracks, seeps, etc.) and any areas with unusual odors.

The monitoring probe was positioned 2 inches above the ground surface. While walking, the wand tip of the FID was held within 2 inches of the landfill surface while traversing the grid. Per the approved alternative request, the wand tip of the FID was held at 2 inches of vegetation in areas where the landfill surface is covered with low-lying vegetation such as grasses while traversing the grid.

Instantaneous Surface Emissions Monitoring

The Instantaneous and Integrated SEM was conducted using flame ionization detectors (FID), calibrated to 500 parts per million by volume (ppm_v) methane, which meets or exceeds all guidelines set forth in the CCR Title 17 §95471(a) and NSPS. The FIDs were calibrated prior to use in accordance with the United States Environmental Protection Agency (USEPA) Method 21 requirements. The SEM procedures followed the requirements of 40 CFR 60.755 (c) and (d) and CCR Title 17 §95471(c)(2).

RES personnel walked the surface of the landfill on a grid by grid basis with the wand tip held at 2 inches from the landfill surface. While sampling the grid; the technicians also checked any surface impoundments (wells or otherwise) for leaks. Technicians also checked any surface cracks, seeps, or other areas that show evidence of surface emissions (odors or distressed vegetation). Active and sloped areas excluded for safety were documented on field data sheets and maps.

All instantaneous surface monitoring was performed in accordance with the applicable requirements referenced in this report. Any detections of methane above 200 ppm_v (areas of concern) or 500 ppm_v (exceedances) for instantaneous were recorded, flagged, and marked on an SEM Map, which, wherever required, is included in the Appendices of this report. Applicable corrective action and re-monitoring timelines are listed below:

- Corrective actions must be initiated within 5 days of the initial exceedance and re-monitoring shall be conducted within 10 days of the initial exceedance.
    - If the re-monitoring event shows the exceedance is corrected, the location shall be re-monitored within 1 month of the initial exceedance.
    - If the 1-month re-monitoring event shows the location is still corrected, all re-monitoring requirements have been completed.
- If either the first 10-day or 1-month re-monitoring events show a second exceedance, additional corrective actions shall be completed and a second re-monitoring event shall be conducted within 10 days of the second exceedance.
- If the second 10-day re-monitoring event shows the second exceedance is corrected, the location shall be re-monitored within 1 month of the initial exceedance. If the 1-month re-monitoring event shows the area is still corrected, monitoring requirements have been completed.
- If any location shows three exceedances, an additional well shall be installed within 120 days of the initial exceedance.

Integrated Surface Emissions Monitoring

The Integrated surface monitoring was conducted using a TVA 1000 calibrated to 25 ppm_v for the integrated monitoring, which meets or exceeds all guidelines set forth in the CCR Title 17 §95471(a). The field technician traversed the grid walking path over a continuous 25-minute period using the TVA 1000 held within 2 inches above the landfill surface. The Integrated monitoring procedures followed the requirements of CCR Title 17 §95471(c)(2).

Grids with results greater than 25 ppm_v were recorded, marked on the SEM map, and flagged for remediation. Any grids with integrated concentrations greater than 25 ppm_v are subject to the following re-monitoring timeline:

- Re-monitoring shall be conducted within 10 days of the initial exceedance.
- If the 10-day re-monitoring event shows the exceedance is corrected, all re-monitoring requirements have been completed.
- If either the first 10-day re-monitoring event shows a second grid exceedance, additional corrective actions shall be completed and a second re-monitoring event shall be conducted within 10 days of the second exceedance.

- If the second 10-day re-monitoring event shows the second exceedance is corrected, all re-monitoring requirements have been completed.

- The second 10-day re-monitoring event shows a third grid exceedance, an additional well shall be installed within 120 days of the third exceedance.

Component Leak Monitoring Procedures

WM personnel monitored the exposed LFG components under positive pressure (pipes, wellheads, valves, blowers, and other mechanical appurtenances) using a TVA 1000 calibrated to 500 ppm_v. All leaks measured one half inch or less from the component exceeding the compliance limit of 500 ppm_v per requirements outlined in pursuant to CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B) and 1,000 ppm_v per requirements outlined in BAAQMD 8-34-303 were recorded. Applicable corrective action and re-monitoring timelines are listed below:

- Leaks between 500 and 999 ppm_v must be corrected and re-monitored within 10 days of the initial exceedance.

- Leaks at or above 1000 ppm_v must be corrected and re-monitored within 7 days of the initial exceedance.

THIRD QUARTER 2020 SEM AND COMPONENT LEAK RESULTS

The following is a summary of the SEM and component leak monitoring results completed for the Third Quarter 2020.

Instantaneous Surface Emissions Monitoring Results

The Instantaneous surface monitoring was performed on August 5, 2020 in accordance with the NSPS, BAAQMD 8-34, and CCR Title 17 §95469 and ACO. Results and data from the monitoring are presented in Attachment A.

Initial Monitoring Event Exceedances of 500 ppm_v

There were 8 exceedances of 500 ppm_v as methane detected August 5, 2020. Corrective actions to initiate repairs of the exceedances were completed within five days for all locations (August 7, 2020).

Ten-Day Re-Monitoring Results

The 10-day re-monitoring event was completed on August 12, 2020. All locations were observed at less than 500 ppm_v.

One-Month Re-Monitoring Results

The 1-month re-monitoring event was completed on September 3, 2020. All locations were observed at less than 500 ppm_v.

Readings between 200 ppm$_v$ and 499 ppm$_v$ (Initial and Re-monitored)

There were no readings between 200 ppm$_v$ and 499 ppm$_v$ as methane detected during the initial monitoring event. Pursuant to CCR Title 17 §95471(c), instantaneous surface emissions exceeding 200 ppm$_v$ but below 500 ppm$_v$ are required to be recorded.

Integrated Surface Emissions Monitoring Results

The Integrated surface sampling (ISS) was performed on August 5 and 6, 2020 accordance with the ACO and requirements outlined in CCR Title 17 §95469.

Initial Monitoring Event Exceedances of 25 ppm$_v$

There were no grids with exceedances of 25 ppm$_v$ as methane detected during monitoring on August 5 and 6, 2020.

The average methane concentration of each grid was recorded during the monitoring event per applicable requirements. See Attachment B, Integrated SEM 25 ppm$_v$ Exceedances and Monitoring Log, and SEM Map included in Attachment B, for details.

Component Leak Monitoring Results

Component leak monitoring was conducted per the applicable requirements on August 5 and 12, 2020. No leaks greater than 500 ppm$_v$ were identified during this monitoring period. Please see Attachment C, for details.

WEATHER CONDITIONS

Wind Speed Conductions during the Surface Emission Monitoring Events

Wind speeds during initial monitoring were monitored using a portable weather station. The station has a strip chart that records the wind speed and direction. After completion of monitoring, the strip chart is reviewed by RES office staff to determine the average and maximum wind speeds during the monitoring and the average wind direction during each grid and ensure that the wind speed requirements are met (no gusts greater than 20 mph, average wind speed cannot exceed 10 mph). These values are documented in the field data sheets. The strip chart data is scanned and included in Attachment D.

Precipitation Requirements

Per the GRDC’s ACO, the initial monitoring event was carefully scheduled so that it could be conducted in compliance with the precipitation requirements (no measurable precipitation within 24 hours). Re-monitoring events are required to adhere to strict timelines. Any conflicts with precipitation requirements are discussed in the results section of this document.

EQUIPMENT CALIBRATION

The portable analyzers were calibrated to meet the instrument specifications requirements of U.S. EPA Method 21. The calibration gas used was methane, diluted to a nominal concentration of 25 ppm_v in air for integrated sample analyses and 500 ppm_v in air for instantaneous monitoring to comply with the requirements.

All analyzers were calibrated prior to use with required response time and precision related instrument checks. Calibration records include the following: One time response time test record; One time response factor determination for methane; Calibration Precision test records (test to be performed every 3 months); and Daily Instrument Calibration and Background test records for each gas meter that was used during the quarterly monitoring event. The calibration log records are included in Attachment E.

All monitoring was completed in accordance with the applicable regulatory requirements or approved alternatives. If you have any questions regarding this report, please do not hesitate to contact me at (510) 875-9338.

Thank you,
Waste Management

Rajan Phadnis
Environmental Protection Specialist

Attachment A – Instantaneous Surface Emission Monitoring Event Records

- Monitoring Logs and Exceedances
- Surface Monitoring Weather Data
- SEM Map

Attachment B – Integrated Surface Emission Monitoring Event Records

- Monitoring Logs and Exceedances
- Surface Monitoring Weather Data
- SEM Map

Attachment C – Component Leak Monitoring Event Records

- Component Leak Exceedances and Monitoring Logs

Attachment D – Weather Station Data

- Strip Chart Data

Attachment E – Calibration Records

- Instrument and Gas Calibration Records

Attachment A

Instantaneous Surface Emission Monitoring Event Records

Table A.1
Instantaneous Landfill Surface Emissions Monitoring
Initial Monitoring Event Areas of Concern

2020 QUARTER: 3
PERFORMED BY: RES
LANDFILL NAME: Guadalupe Recycling & Disposal Facility

Flag Number	Grid Number	Date of Monitoring	Concentration of Emission (ppmv)	Comments
O21	88	8/5/2020	1,000 ppm	Well 222
O22	88	8/5/2020	2,500 ppm	Well 230
O11	75	8/5/2020	968 ppm	Well 240
O12	75	8/5/2020	7,491 ppm	Well 242
O13	76	8/5/2020	6,369 ppm	Well 239
O1	66	8/5/2020	509 ppm	Surface
O2	1	8/5/2020	600 ppm	Surface
O3	2	8/5/2020	3,000 ppm	Surface
Notes: Please refer to field data sheets for details				

Table A.2
Instantaneous Landfill Surface Emissions Monitoring
Exceedance and Monitoring Logs (NSPS/BAAQMD 8-34)

2020 QUARTER: 3

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: WM-Markus Bernard/Dan San Jose/Juan Baracio

LANDFILL NAME: **Guadalupe Recycling & Disposal Facility**

Initial Monitoring Event			**Corrective action within 5 days**		**1st 10-day Follow-Up**			**1st 30-day Follow-Up**			
Flag Number	Monitoring Date	Field Reading	Repair Date	Action taken to repair Exceedance	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	**Comments**
O21	8/5/2020	1,000 ppm	8/7/2020	Increased Flow/ Tune BECS	8/12/2020	23 ppm		09.03.20	45		Well 222
O22	8/5/2020	2,500 ppm	8/7/2020	Increased Flow/ Tune BECS	8/12/2020	43 ppm		09.03.20	20		Well 230
O11	8/5/2020	968 ppm	8/7/2020	Increased Flow/ Tune BECS	8/12/2020	19 ppm		09.03.20	131		Well 240
O12	8/5/2020	7,491 ppm	8/7/2020	Increased Flow/ Tune BECS	8/12/2020	39 ppm		09.03.20	158		Well 242
O13	8/5/2020	6,369 ppm	8/7/2020	Increased Flow/ Tune BECS	8/12/2020	67 ppm		09.03.20	271		Well 239
O1	8/5/2020	509 ppm	8/7/2020	Soil/ Water	8/12/2020	0 ppm		09.03.20	25		Surface
O2	8/5/2020	600 ppm	8/7/2020	Soil/ Water	8/12/2020	0 ppm		09.03.20	33		Surface
O3	8/5/2020	3,000 ppm	8/7/2020	Soil/ Water	8/12/2020	0 ppm		09.03.20	17		Surface

Table A.3
Instantaneous Landfill Surface Emissions Monitoring Exceedance and Monitoring Logs (AB-32)

2020 QUARTER: 3

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: WM-Markus Bernard/Dan San Jose/Juan Baracio

LANDFILL NAME: **Guadalupe Recycling & Disposal Facility**

Initial Monitoring Event			**1st Re-mon Event - 10 Days**			**2nd Re-mon Event - 10 Days**			
Exceedance Grid ID No.	Monitoring Date	Field Reading	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	**Comments**
88	8/5/2020	1,000 ppm	8/12/2020	23 ppm					Well 222
88	8/5/2020	2,500 ppm	8/12/2020	43 ppm					Well 230
75	8/5/2020	968 ppm	8/12/2020	19 ppm					Well 240
75	8/5/2020	7,491 ppm	8/12/2020	39 ppm					Well 242
76	8/5/2020	6,369 ppm	8/12/2020	67 ppm					Well 239
66	8/5/2020	509 ppm	8/12/2020	0 ppm					Surface
1	8/5/2020	600 ppm	8/12/2020	0 ppm					Surface
2	8/5/2020	3,000 ppm	8/12/2020	0 ppm					Surface

Table A.4
Instantaneous Landfill Surface Emissions Monitoring
Areas of Concern Greater than 200 ppmv

2020 QUARTER: 3

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: NA

LANDFILL NAME: **Guadalupe Recycling & Disposal Facility**

Initial Monitoring Event			Re-mon Event		Comments
Exceedance Grid ID No.	Monitoring Date	Field Reading	Monitoring Date	Reading ppm	
None					

Instantaneous Landfill Surface Emissions Monitoring Exceedance and Monitoring Logs (NSPS/BAAQMD 8-34)

2020 QUARTER: 3
INITIAL MONITORING PERFORMED BY: RES
FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard/Dan San Jose/Juan Baracio
LANDFILL NAME: GUADALUPE LANDFILL

Wind Speed: 12 MPH
Wind Direction: N

Wind Speed:
Wind Direction:

Initial Monitoring Event			Corrective action within 5 days		1st 10-day Follow-Up			1st 30-day Follow-Up			Comments
Flag Number	Monitoring Date	Field Reading	Repair Date	Action taken to repair Exceedance	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	
O21	8/5/2020	1,000 ppm	8/7/2020	Increased Flow/ Tune BECS	8/12/2020	23 ppm		09.03.20	45		Well 222
O22	8/5/2020	2,500 ppm	8/7/2020	Increased Flow/ Tune BECS	8/12/2020	43 ppm		09.03.20	20		Well 230
O11	8/5/2020	968 ppm	8/7/2020	Increased Flow/ Tune BECS	8/12/2020	19 ppm		09.03.20	131		Well 240
O12	8/5/2020	7,491 ppm	8/7/2020	Increased Flow/ Tune BECS	8/12/2020	39 ppm		09.03.20	158		Well 242
O13	8/5/2020	6,369 ppm	8/7/2020	Increased Flow/ Tune BECS	8/12/2020	67 ppm		09.03.20	271		Well 239
O1	8/5/2020	509 ppm	8/7/2020	Soil/ Water	8/12/2020	0 ppm		09.03.20	25		Surface
O2	8/5/2020	600 ppm	8/7/2020	Soil/ Water	8/12/2020	0 ppm		09.03.20	33		Surface
O3	8/5/2020	3,000 ppm	8/7/2020	Soil/ Water	8/12/2020	0 ppm		09.03.20	17		Surface

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEISH WADE
NICK BENICS
DWIGHT ANDERSON

Cal. Gas Exp. Date: 9-21-20

Date: 8-5-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 61 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.2

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
54	LW	0530	0545	31	3	6	6	
55	ND	0530	0545	46	3	6	6	
59	DA	0530	0545	39	3	6	6	
60	LW	0545	0600	58	4	6	12	
61	ND	0545	0600	42	4	6	12	
64	DA	0545	0600	38	4	6	12	
65	LW	0600	0615	51	4	5	5	
66	ND	0600	0615	509	4	5	5	SURFACE
67	DA	0600	0615	106	4	5	5	
69	LW	0615	0630	40	4	6	5	
70	NB	0615	0630	65	4	6	5	
71	DA	0615	0630	38	4	6	5	
72	LW	0630	0645	24	4	8	8	
73	NB	0630	0645	62	4	8	8	
74	DA	0630	0645	48	4	8	8	
75	LW	0645	0700	7,491	4	7	8	WELL 242
76	NB	0645	0700	6,369	4	7	8	WELL 239
77	DA	0645	0700	49	4	7	8	
78	LW	0700	0715	72	4	6	8	
79	NB	0700	0715	36	4	6	8	
80	DA	0700	0715	24	4	6	8	
81	LW	0715	0730	37	4	7	8	
82	NB	0715	0730	30	4	7	8	
83	DA	0715	0730	26	4	7	8	
84	LW	0730	0745	22	4	7	8	
85	NB	0730	0745	36	4	7	8	
86	DA	0730	0745	109	4	7	8	
87	LW	0745	0800	43	4	6	8	
88	NB	0745	0800	2,500	4	6	8	WELL 230
89	DA	0745	0800	35	4	6	8	

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 3

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEIGH WADE
NICK BANKS
DWIGHT ANDERSON

Cal. Gas Exp. Date: 9-21-20

Date: 8-5-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 65 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.2

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
90	LW	0800	0815	3,000	4	6	7	SURFACE
91	NB	0800	0815	18	4	6	7	
92	DA	0800	0815	14	4	6	7	
93	LW	0815	0830	16	4	8	7	
94	NB	0815	0830	12	4	8	7	
95	DA	0815	0830	14	4	8	7	
96	LW	0830	0845	18	4	9	7	
97	NB	0830	0845	24	4	9	7	
98	DA	0830	0845	11	4	9	7	
99	LW	0845	0900	17	4	9	7	
100	NB	0845	0900	15	4	9	7	
101	DA	0845	0900	21	4	9	7	
102	LW	0900	0915	18	4	8	8	
103	NB	0900	0915	13	4	8	8	
104	DA	0900	0915	26	4	8	8	
105	LW	0915	0930	14	4	8	9	
47	NB	0915	0930	25	4	8	9	
48	DA	0915	0930	49	4	8	9	
49	LW	0930	0945	113	4	8	9	
50	NB	0930	0945	62	4	8	9	
41	DA	0930	0945	19	4	8	9	
42	LW	0945	1000	35	4	6	9	
43	NB	0945	1000	77	4	6	9	
35	DA	0945	1000	15	4	6	9	
36	LW	1000	1015	42	4	6	8	
37	NB	1000	1015	49	4	6	8	
29	DA	1000	1015	16	4	6	8	
30	LW	1015	9030	28	4	6	8	
31	NB	1015	1030	54	4	6	8	
24	DA	1015	1030	17	4	6	8	

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 3

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: Lu Shuaot
Nick Banks
Dwight Anderson

Cal. Gas Exp. Date: 9-21-20

Date: 8-5-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 69 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.2

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
25	LW	1030	1045	39	4	8	8	
26	NB	1030	1045	86	4	8	8	
19	OD	1030	1045	14	4	8	8	
20	LW	1045	1100	39	4	8	8	
21	ND	1045	1100	47	4	8	8	
15	DA	1045	1100	32	4	8	8	
16	LW	1100	1115	50	4	6	9	
11	NB	1100	1115	18	4	6	9	
12	DA	1100	1115	16	4	6	9	
13	LW	1115	1130	42	4	6	9	
8	NB	1115	1130	34	4	6	9	
4	DA	1115	1130	19	4	6	9	
5	LW	1130	1145	76	4	6	12	
2	NB	1130	1145	41	4	6	12	
1	DA	1130	1145	65	4	6	12	

Attach Calibration Sheet
Attach site map showing grid ID

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GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: Leighwinper ______ ______
______ ______ ______
______ ______ Cal. Gas Exp. Date: ______

Date: 8-5-20 Instrument Used: ______ Grid Spacing: ______

Temperature: ______ Precip: ______ Upwind BG: ______ Downwind BG: ______

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
3								Active areas
7								↓
6								↓
9								↓
10								↓
18								↓
23								No waste in place
28								↓
33								↓
34								↓
39								↓
40								↓
45								↓
46								↓
52								↓
53								↓
57								↓
58								↓
62								↓
63								↓
68								↓
14								Steep slopes
17								↓
22								↓
27								↓
32								↓
38								↓
44								↓
51								↓
56								↓

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 1

Orange Flag Landfill Surface Emissions Monitoring
Exceedances and Monitoring Log

Site: Guadalupe

Quarter / Year: 3RD 2020
Technician: Leighwade
Instrument: TVA 1000
Calibration Standard: 500ppm

Page of Pages

Initial Monitoring Event				First Re-Monitoring Event - 10 Days			Second Re-Monitoring Event - 10 Days			30-Day Follow-up Monitoring			Comments
Flag Number	Grid Number	Field Reading (ppm)	Date Monitored	Date Monitored	No Excd. <500 ppm	Excd. >500 ppm	Date Monitored	No Excd. <500 ppm	Excd. >500 ppm	Date Monitored	No Excd. <500 ppm	Excd. >500 ppm	
O-21	88	1,000	8-5-20										WELL 222
O-22	88	2,500	↓										WELL 230
O-11	75	968											WELL 240
O-12	75	7,491											WELL 242
O-13	76	6,369											WELL 239
O-1	66	509											SURFACE
O-2	90	600											SURFACE
O-3	90	3,000											SURFACE
O-													
O-													
O-													
O-													
O-													
O-													
O-													
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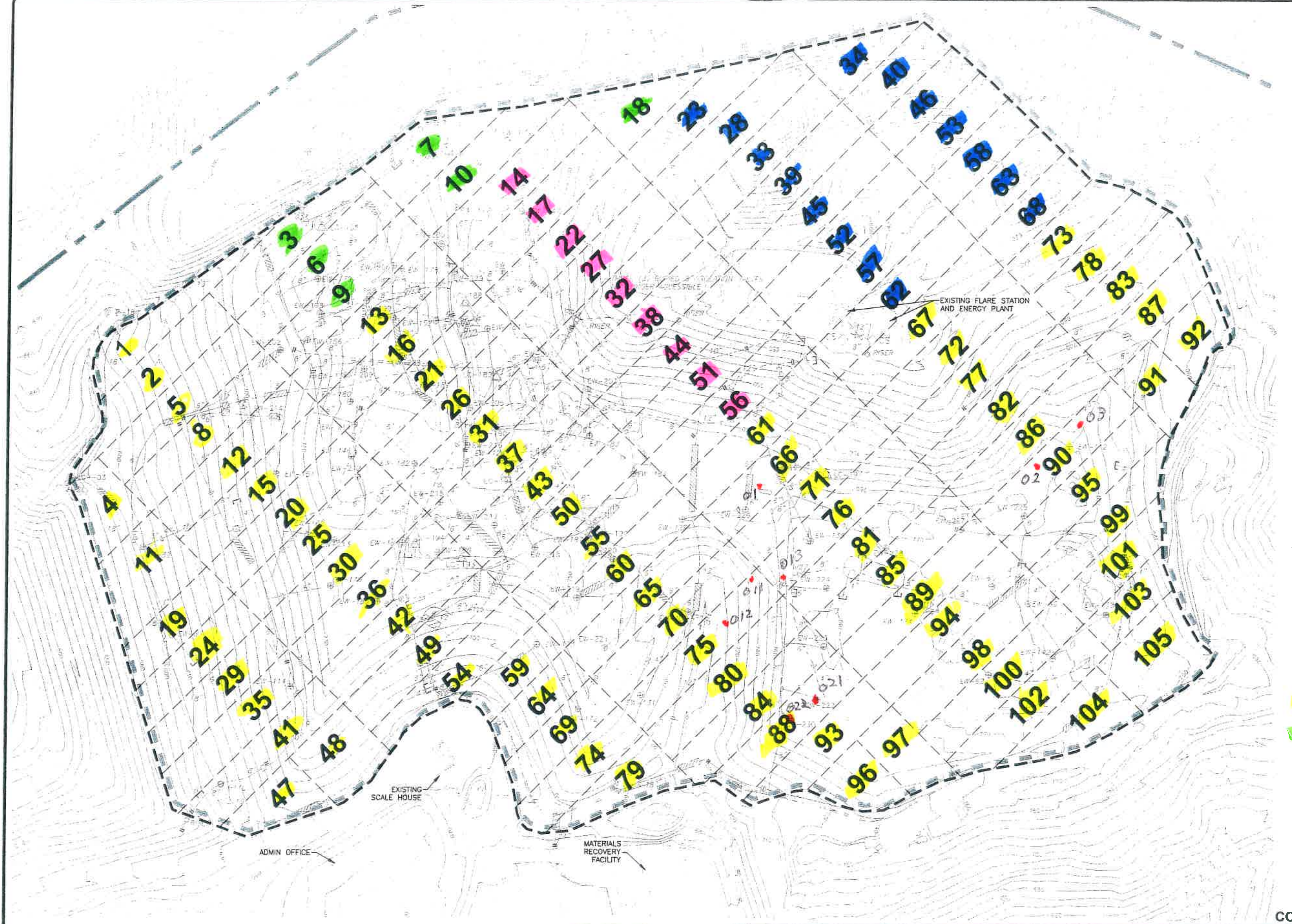
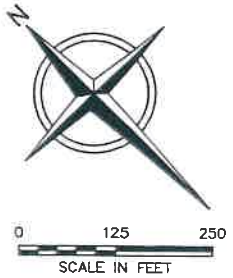


LEGEND

- PROPERTY BOUNDARY
- EXISTING 10' CONTOUR
- EXISTING ABOVEGROUND PIPING
- EXISTING BELOWGROUND PIPING
- EXISTING HORIZONTAL COLLECTOR
- EXISTING LFG EXTRACTION WELL
- EXISTING REMOTE WELLHEAD
- EXISTING PROBE
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING LOCAL CONTROL WELL
- EXISTING CONTROL VALVE
- EXISTING BLIND FLANGE
- EXISTING FLANGE CONNECTION
- EXISTING REDUCER FITTING
- EXISTING ROAD CROSSING
- EXISTING CONDENSATE SUMP
- EXISTING RISER
- EXISTING CAP ON EXISTING PIPE



NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY MILLER CREEK AERIAL MAPPING OF BURIEN, WA. DATE OF PHOTOGRAPHY: MARCH 9, 2018. DATUM: HORIZONTAL – NAD 83, VERTICAL – NAD 88.
2. SUPPLEMENTAL 2015 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON MAY 29, 2015. WELL LOCATIONS PER ISSUED FOR CONSTRUCTION WELL SCHEDULE DATED APRIL 10, 2015.
3. 2018 GCCS IMPROVEMENTS AS-BUILT PIPING PER SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: DECEMBER 11, 2018.

Instantaneous 8-5-20

🟨 Grids monitored

🟩 Active trash

🟦 No waste in place

🟪 Steep slopes

● 500+ ppm

CONCEPTUAL - NOT FOR CONSTRUCTION

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 2/4/2019
DRAWN BY RAW
DESIGNED BY AMN
CHECKED BY PJS
APPROVED BY PJS

cornerstone
A TETRA TECH COMPANY

GUADALUPE RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA

AS-BUILT SEM GRID MAP

SHEET NO. 1

PROJECT NO.

LEGEND

- PROPERTY BOUNDARY
- EXISTING 10' CONTOUR
- EXISTING ABOVEGROUND PIPING
- EXISTING BELOWGROUND PIPING
- EXISTING HORIZONTAL COLLECTOR
- EXISTING LFG EXTRACTION WELL
- EXISTING REMOTE WELLHEAD
- EXISTING PROBE
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING LOCAL CONTROL WELL
- EXISTING CONTROL VALVE
- EXISTING BLIND FLANGE
- EXISTING FLANGE CONNECTION
- EXISTING REDUCER FITTING
- EXISTING ROAD CROSSING
- EXISTING CONDENSATE SUMP
- EXISTING RISER
- EXISTING CAP ON EXISTING PIPE

N

0 125 250
SCALE IN FEET

NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY MILLER CREEK AERIAL MAPPING OF BURIEN, WA. DATE OF PHOTOGRAPHY: MARCH 9, 2018. DATUM: HORIZONTAL – NAD 83, VERTICAL – NAD 88.
2. SUPPLEMENTAL 2015 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON MAY 29, 2015. WELL LOCATIONS PER ISSUED FOR CONSTRUCTION WELL SCHEDULE DATED APRIL 10, 2015.
3. 2018 GCCS IMPROVEMENTS AS-BUILT PIPING PER `SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: DECEMBER 11, 2018.

🟩 NSPS 3RD Quarter 2020

● Upwind

🟥 Downwind

CONCEPTUAL - NOT FOR CONSTRUCTION

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 2/4/2019
DRAWN BY RAW
DESIGNED BY AMN
CHECKED BY PJS
APPROVED BY PJS

cornerstone
A TETRA TECH COMPANY

GUADALUPE RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA

AS-BUILT SEM GRID MAP

SHEET NO.
1
PROJECT NO.

Attachment B

Integrated Surface Emission Monitoring Event Records

Table B.1
Integrated Landfill Surface Monitoring
Exceedances and Monitoring Log

2020 QUARTER: 3

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: NA

LANDFILL NAME: **Guadalupe Recycling & Disposal Facility**

Initial Monitoring Event			1st Re-mon Event - 10 Days			Comments
Exceedance Grid ID No.	Monitoring Date	Field Reading	Monitoring Date	No Exced. <25 ppm	No Exced. >25 ppm	
None						

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: Leigh Wade
Nick Banks
Dwight Anderson

Cal. Gas Exp. Date: 9-21-20

Date: 8-5-20 Instrument Used: TVA 1000 Grid Spacing: 25'

Temperature: 80 Precip: 0 Upwind BG: 2.2 Downwind BG: 2.0

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
54	LW	1155	1220	5.80	4	6	9	
55	NB	1155	1220	6.17	4	6	9	
59	DA	1155	1220	5.82	4	6	9	
60	LW	1220	1245	7.13	4	8	10	
61	NB	1220	1245	5.98	4	8	10	
64	DA	1220	1245	5.52	4	8	10	
65	LW	1245	1310	8.54	4	10	12	
66	NB	1245	1310	11.51	4	10	12	
67	DA	1245	1310	5.74	4	10	12	
69	LW	1310	1335	6.11	4	6	14	
70	NB	1310	1335	8.14	4	6	14	
71	DA	1310	1335	6.57	4	6	14	
72	LW	1335	1400	5.59	4	6	16	
73	NB	1335	1400	7.40	4	6	16	
74	DA	1335	1400	7.15	4	6	16	
75	LW	1400	1425	6.84	4	6	12	
76	NB	1400	1425	6.18	4	6	12	
77	DA	1400	1425	5.11	4	6	12	
78	LW	1425	1450	6.34	4	6	12	
79	NB	1425	1450	7.52	4	6	12	
80	DA	1425	1450	6.08	4	6	12	

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 1

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEighWADE ____________ ____________

____________ ____________ ____________

____________ ____________ Cal. Gas Exp. Date: ______

Date: 8-5-20 Instrument Used: ____________ Grid Spacing: ____________

Temperature: ______ Precip: ______ Upwind BG: ______ Downwind BG: ______

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
3								Active-fires?
6								
9								
7								
10								
18								
23								No waste in place
28								
33								
34								
39								
40								
45								
46								
52								
53								
57								
58								
62								
63								
68								Steep slopes
14								
17								
22								
27								
32								
38								
44								
51								
56								

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 1

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: Leighwade
Nick Banks
Dwight Anderson

Cal. Gas Exp. Date: 9-21-20

Date: 8-6-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 58 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.2

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
81	LW	0530	0555	5.47	4	8	6	
82	NB	0530	0555	4.71	4	8	6	
83	DA	0530	0555	5.36	4	8	6	
84	LW	0555	0620	5.15	4	8	8	
85	NB	0555	0620	4.34	4	8	8	
86	DA	0555	0620	4.27	4	8	8	
87	LW	0620	0645	5.06	4	7	6	
88	NB	0620	0645	4.50	4	7	6	
89	DA	0620	0645	5.74	4	7	6	
90	LW	0645	0710	6.12	4	6	7	
91	NB	0645	0710	5.85	4	6	7	
92	DA	0645	0710	4.39	4	6	7	
93	LW	0710	0735	5.78	2	4	7	
94	NB	0710	0735	4.13	2	4	7	
95	DA	0710	0735	3.67	2	4	7	
96	LW	0735	0800	4.81	2	4	7	
97	NB	0735	0800	5.26	2	4	7	
98	DA	0735	0800	4.48	2	4	7	
99	LW	0800	0825	3.25	2	3	7	
100	NB	0800	0825	5.16	2	3	7	
101	DR	0800	0825	4.70	2	3	7	
102	LW	0825	0850	3.21	2	3	7	
103	NB	0825	0850	3.17	2	3	7	
104	DA	0825	0850	3.09	2	3	7	
105	LW	0850	0915	4.11	2	3	8	
47	NB	0850	0915	6.54	2	3	8	
48	DA	0850	0915	8.12	2	3	8	
49	LW	0915	0940	7.29	2	3	7	
50	NB	0915	0940	6.71	2	3	7	
41	DA	0915	0940	4.30	2	3	7	

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 2

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEIgh WADE

Nick Borks

Dwight ANDERSON

Cal. Gas Exp. Date: 9-21-20

Date: 8-6-20 Instrument Used: TVA1000 Grid Spacing: 25'

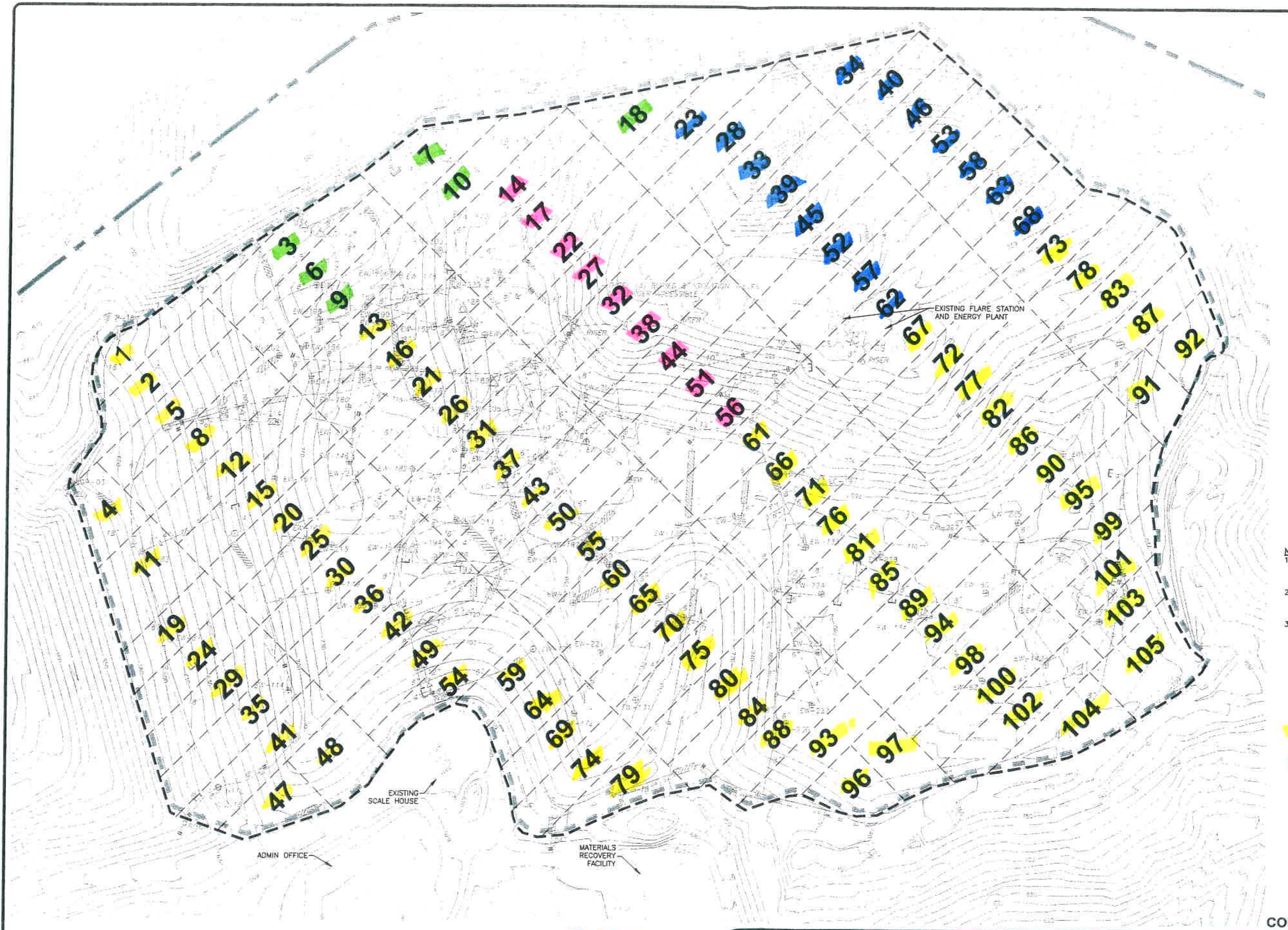
Temperature: 74 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.2

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
42	LW	0940	1005	6.17	2	3	7	
43	NB	0940	1005	5.20	2	3	7	
35	DA	0940	1005	3.82	2	3	7	
36	LW	1005	1030	6.05	1	2	7	
37	NB	1005	1030	5.97	1	2	7	
29	DA	1005	1030	3.12	1	2	7	
30	LW	1030	1055	5.97	1	2	7	
31	ND	1030	1055	6.74	1	2	7	
24	DA	1030	1055	3.22	1	2	7	
25	LW	1125	1150	6.80	1	2	8	
26	NB	1125	1150	7.35	1	2	8	
19	DA	1125	1150	3.02	1	2	8	
20	LW	1150	1215	5.41	1	2	9	
21	NB	1150	1215	5.70	1	2	9	
15	DA	1150	1215	6.13	1	2	9	
16	LW	1215	1240	7.34	1	2	9	
11	NB	1215	1240	3.20	1	2	9	
12	DA	1215	1240	5.54	1	2	9	
13	LW	1240	1305	7.28	1	2	9	
8	NB	1240	1305	6.77	1	2	9	
4	DA	1240	1305	5.60	1	2	9	
5	LW	1305	1330	5.42	1	2	9	
2	NB	1305	1330	4.86	1	2	9	
1	DA	1305	1330	5.97	1	2	9	

Attach Calibration Sheet

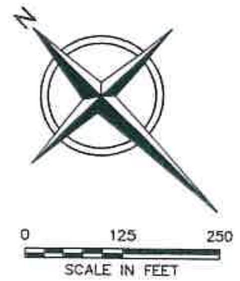
Attach site map showing grid ID

Page 2 of 2



LEGEND

PROPERTY BOUNDARY
EXISTING 10' CONTOUR
EXISTING ABOVEGROUND PIPING
EXISTING BELOWGROUND PIPING
EXISTING HORIZONTAL COLLECTOR
EXISTING LFG EXTRACTION WELL
EXISTING REMOTE WELLHEAD
EXISTING PROBE
EXISTING HORIZONTAL COLLECTOR WELLHEAD
EXISTING LOCAL CONTROL WELL
EXISTING CONTROL VALVE
EXISTING BLIND FLANGE
EXISTING FLANGE CONNECTION
EXISTING REDUCER FITTING
EXISTING ROAD CROSSING
EXISTING CONDENSATE SUMP
EXISTING RISER
EXISTING CAP ON EXISTING PIPE



NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY MILLER CREEK AERIAL MAPPING OF BURIEN, WA. DATE OF PHOTOGRAPHY: MARCH 9, 2018. DATUM: HORIZONTAL – NAD 83, VERTICAL – NAD 88.
2. SUPPLEMENTAL 2015 GCCS IMPROVEMENTS AS-BUILT PIPING PER FIELD MARK-UP DRAWING PROVIDED BY WM ON MAY 29, 2015. WELL LOCATIONS PER ISSUED FOR CONSTRUCTION WELL SCHEDULE DATED APRIL 10, 2015.
3. 2018 GCCS IMPROVEMENTS AS-BUILT PIPING PER SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: DECEMBER 11, 2018.

Integrated 8-5-20
8-6-20

🟨 Grids monitored
🟦 No waste in place
🟩 Active - trash
🟪 Steep slopes

CONCEPTUAL - NOT FOR CONSTRUCTION

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 2/4/2019
DRAWN BY RAW
DESIGNED BY AMN
CHECKED BY PJS
APPROVED BY PJS

cornerstone
A TETRA TECH COMPANY

GUADALUPE RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA

AS-BUILT SEM GRID MAP

SHEET NO.
1
PROJECT NO.

Attachment C

Component Leak Monitoring Event Records

Table C.1
AB-32 Component Leak Monitoring
Summary of Component Leaks Greater than 500 ppmv

2020 QUARTER: 3

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: NA

LANDFILL NAME: Guadalupe Recycling & Disposal Facility

Location	Initial Monitoring			Corrective Action		10-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
Flare Station A-9	8/5/2020	ND	RES	NA	NA	NA	NA	NA
	8/12/2020	ND	WM	NA	NA	NA	NA	NA
	9/22/2020	ND	WM	NA	NA	NA	NA	NA
Flare Station A-14	8/5/2020	ND	RES	NA	NA	NA	NA	NA

ND= Non Exceedances

Table C.2
BAAQMD Component Leak Monitoring
Summary of Component Leaks Greater than 1,000 ppmv

2020 QUARTER: 3

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: NA

LANDFILL NAME: Guadalupe Recycling & Disposal Facility

Location	Initial Monitoring			Corrective Action		7-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
Flare Station A-9	8/5/2020	ND	RES	NA	NA	NA	NA	NA
	8/12/2020	ND	WM	NA	NA	NA	NA	NA
	9/22/2020	ND	WM	NA	NA	NA	NA	NA
Flare Station A-14	8/5/2020	ND	RES	NA	NA	NA	NA	NA

ND= Non Exceedances

Landfill component Leak Check
Guadalupe New Flare

5ppm

5ppm

4ppm

4ppm

4ppm

8-5-20
DATE

Landfill component Leak Check
Guadalupe New Flare

8-5-20 DATE

Landfill component Leak Check
Guadalupe New Flare

5ppm

4ppm

8-5-20 DATE

Landfill component Leak Check
Guadalupe

4ppm

3ppm

8-5-20
DATE

Landfill component Leak Check
Guadalupe

5ppm

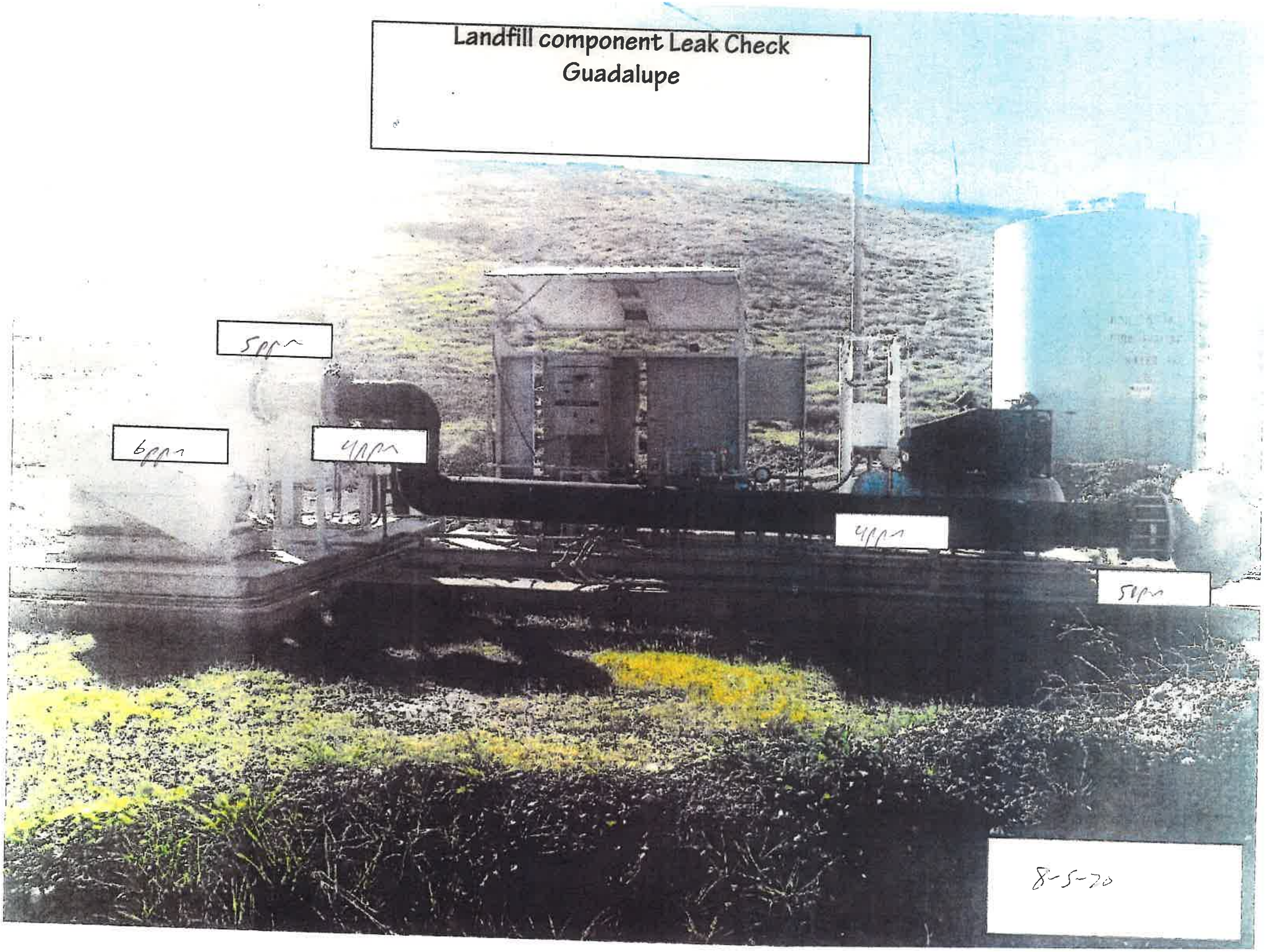
5ppm

6ppm

8-5-20

DATE

Landfill component Leak Check
Guadalupe



8-5-20

LANDFILL NAME: GUADALUPE :

QUARTERLY LFG COMPONENT LEAK MONITORING

INSTRUMENT FID
MAKE: Thermo Environr
MODEL: TVA 1000
S/N: 1036246773

DATE OF SAMPLING: 8-5-20
TECHNICIAN: LEIGH WADE

LOCATION OF LEAK	LEAK CONCENTRATION (ppmv)	DATE OF DISCOVERY	TECHNICIAN	ACTION TAKEN TO REPAIR LEAK	DATE OF REPAIR	DATE OF ANY REQUIRED RE-MONITORING	RE-MONITORED CONCENTRATION (ppmv)
NO EXCEEDENCES							

In the event that an exceedance is detected, please intiate corrective action and re-monitor the exceedance location within 7 days of the initial exceedance.

NOTE: Leaks over 500 ppmv methane are exceedances at any component containing landfill gas, pursuant to CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B).

NOTE: Leaks over 1,000 ppmv methane are exceedances at any component containing landfill gas, pursuant to BAAQMD Regulation 8-34-301.2.

Guadalupe Landfill, San Jose, CA
QUARTERLY LFG COMPONENT LEAK MONITORING

INSTRUMENT FID
MAKE: Photo Scientific
MODEL: TVA 1000
S/N: 0928538411

DATE OF SAMPLING: 8/12/20
TECHNICIAN: Markus Bernard

LOCATION OF LEAK	LEAK CONCENTRATION (ppmv)	DATE OF DISCOVERY	TECHNICIAN	ACTION TAKEN TO REPAIR LEAK	DATE OF REPAIR	DATE OF ANY REQUIRED RE-MONITORING	RE-MONITORED CONCENTRATION (ppmv)
No Exceedances were detected							

NOTE: In the event that an exceedance is detected, please intiate corrective action and re-monitor the exceedance location within 7 days of the initial exceedance.

Leaks over 500 ppmv methane are exceedances at any component containing landfill gas pursuant to CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B).

Leaks over 1,000 ppmv methane are exceedances at any component containing landfill gas pursuant to BAAQMD Regulation 8-34-301.2.

Guadalupe Landfill, San Jose, CA

QUARTERLY LFG COMPONENT LEAK MONITORING

A9 Flare
INSTRUMENT FID
MAKE: Photo Scientific
MODEL: TVA 1000
S/N: 0928538411

DATE OF SAMPLING: 9/22/2020
TECHNICIAN: Markus Bernard

LOCATION OF LEAK	LEAK CONCENTRATION (ppmv)	DATE OF DISCOVERY	TECHNICIAN	ACTION TAKEN TO REPAIR LEAK	DATE OF REPAIR	DATE OF ANY REQUIRED RE-MONITORING	RE-MONITORED CONCENTRATION (ppmv)
N/A		No Leaks Discovered					

NOTE: In the event that an exceedance is detected, please intiate corrective action and re-monitor the exceedance location within 7 days of the initial exceedance.

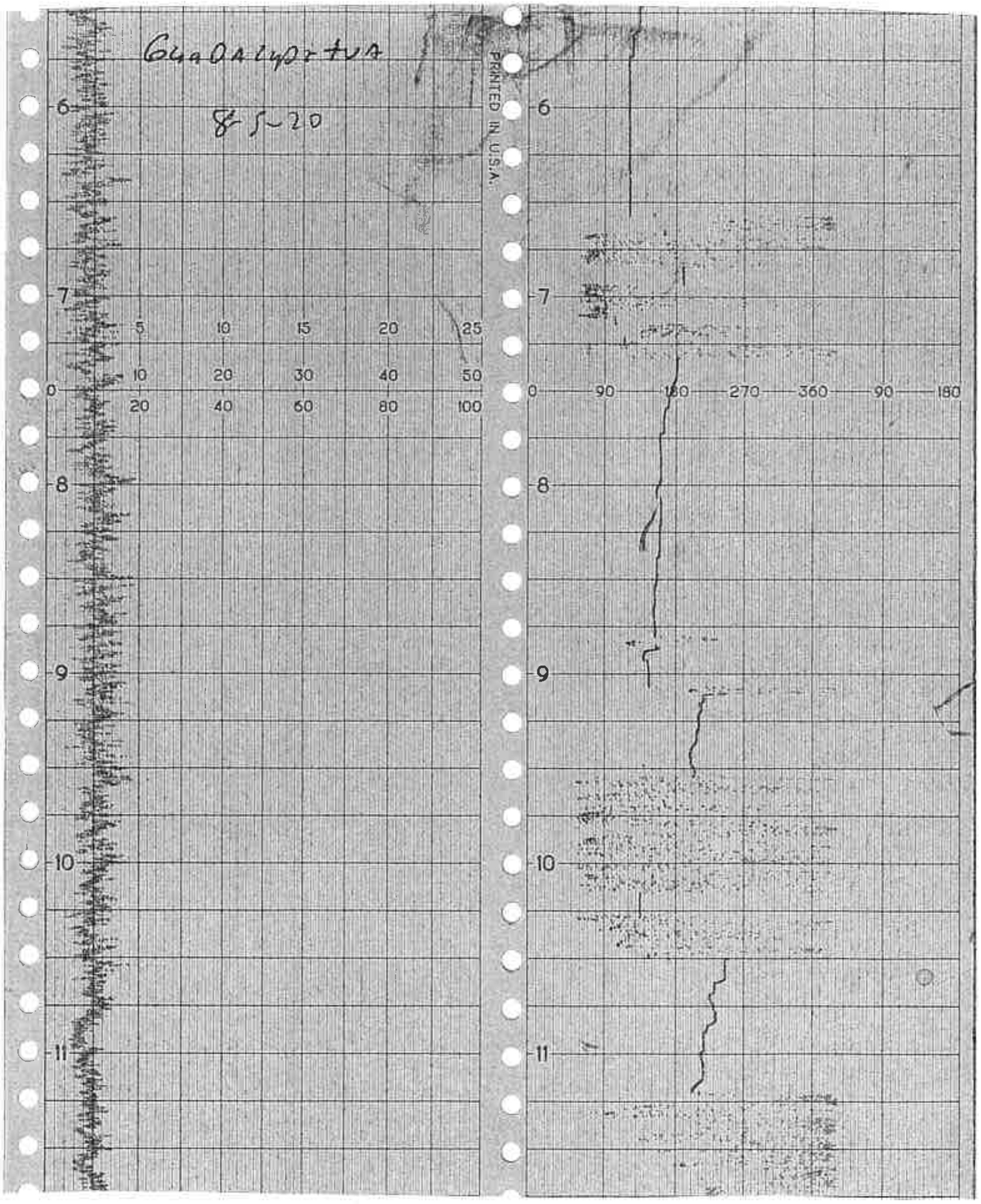
Leaks over 500 ppmv methane are exceedances at any component containing landfill gas pursuant to CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B).

Leaks over 1,000 ppmv methane are exceedances at any component containing landfill gas pursuant to BAAQMD Regulation 8-34-301.2.

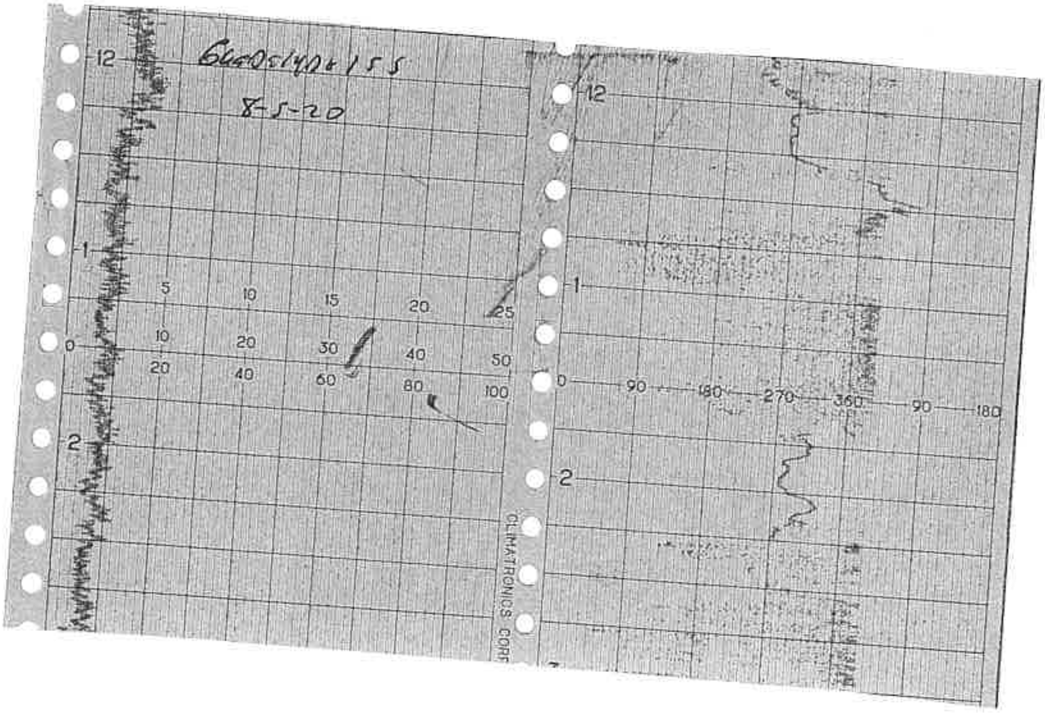
Attachment D

Weather Station Data

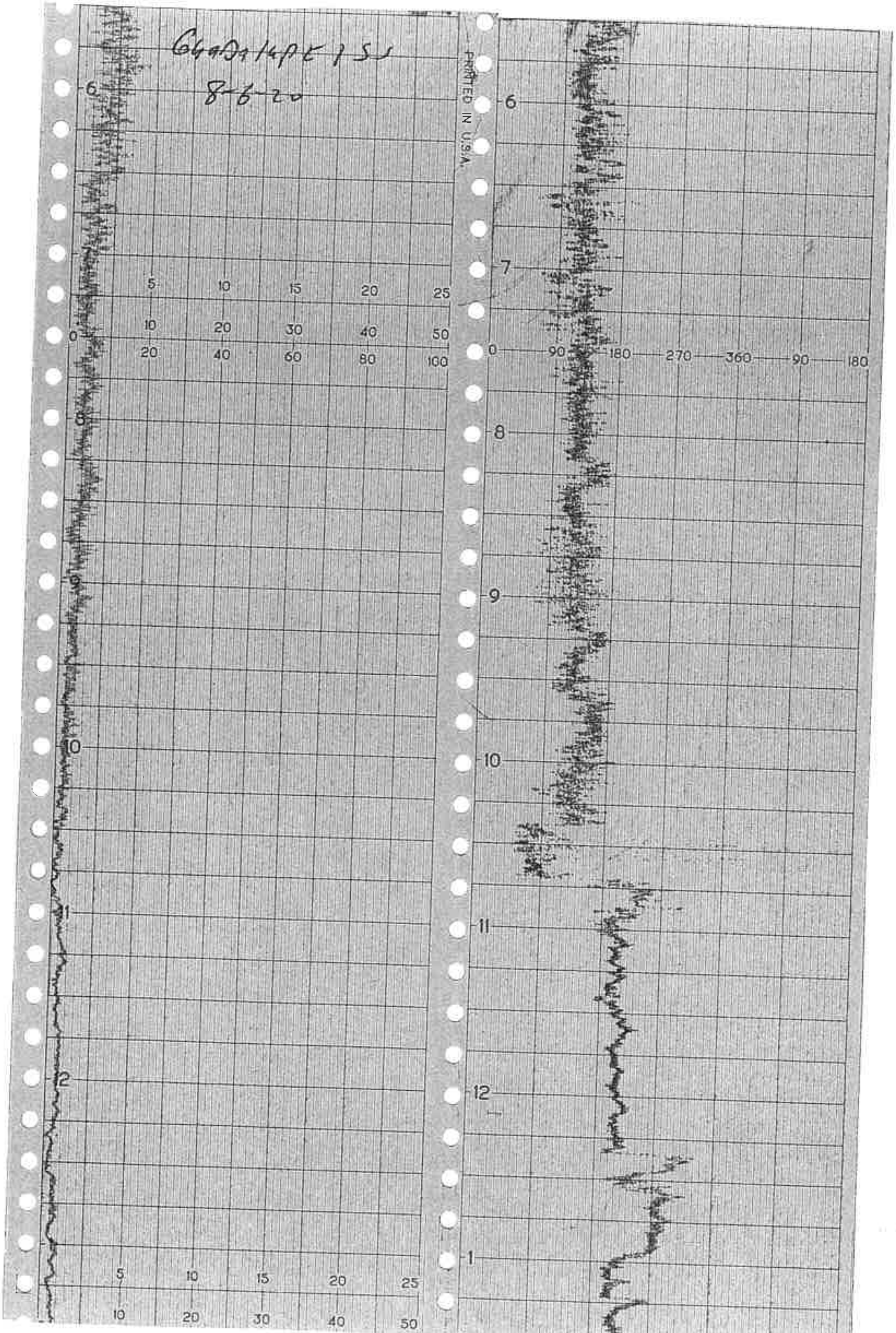
WIND SPEED & DIRECTION CHART ROLL



WIND SPEED & DIRECTION CHART ROLL



WIND SPEED & DIRECTION CHART ROLL



GuaDalupe ISD
8-6-20

RES
Environmental Inc.

16-POINT WIND DIRECTION INDEX

NO	DIRECTION		DEGREES	
		FROM	CENTER	TO
16	NORTH (N)	348.8	360.0	011.3
1	NORTH-NORTHEAST (NNE)	011.3	022.5	033.8
2	NORTHEAST (NE)	033.8	045.0	056.3
3	EAST-NORTHEAST (ENE)	056.3	067.5	078.8
4	EAST (E)	078.8	090.0	101.3
5	EAST-SOUTHEAST (ESE)	101.3	112.5	123.8
6	SOUTHEAST (SE)	123.8	135.0	146.3
7	SOUTH-SOUTHEAST (SSE)	146.3	157.5	168.8
8	SOUTH (S)	168.8	180.0	191.3
9	SOUTH-SOUTHWEST (SSW)	191.3	202.5	213.8
10	SOUTHWEST (SW)	213.8	225.0	236.3
11	WEST-SOUTHWEST (WSW)	236.3	247.5	258.8
12	WEST (W)	258.8	270.0	281.3
13	WEST-NORTHWEST (WNW)	281.3	292.5	303.8
14	NORTHWEST (NW)	303.8	315.0	326.3
15	NORTH-NORTHWEST (NNW)	326.3	337.5	348.8

Attachment E

Calibration Records

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: Guadalupe INSTRUMENT MAKE: Thermo
MODEL: TVA1000 EQUIPMENT #: 10 SERIAL #: 1036346773
MONITORING DATE: 8-5-20 TIME: 0525

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: $\frac{\text{(Upwind + Downwind)}}{2}$
2.0 ppm	2.2 ppm	2.1 ppm

Background Value = 2.1 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	495 ppm	445 ppm	5
#2	502 ppm	452 ppm	5
#3	500 ppm	450 ppm	5
Calculate Response Time $\frac{(1+2+3)}{3}$			5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.24 ppm	495 ppm	5
#2	0.17 ppm	502 ppm	2
#3	0.14 ppm	500 ppm	0
Calculate Precision $\frac{\text{[STD-B1] + [STD-B2] + [STD-B3]}}{3} \times \frac{1}{500} \times \frac{100}{1}$			0.46 #DIV/0! Must be less than 10%

Performed By: Chris Wade Date/Time: 8-5-20 – 0525

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: Greenslope INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 11 SERIAL #: 1036346774

MONITORING DATE: 8-5-20 TIME: 0525

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.0 ppm	2.2 ppm	2.1 ppm

Background Value = 2.1 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	510 ppm	460 ppm	7
#2	495 ppm	445 ppm	7
#3	500 ppm	450 ppm	7
	Calculate Response Time (1+2+3) / 3		7 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.15 ppm	510 ppm	10
#2	0.10 ppm	495 ppm	5
#3	0.08 ppm	500 ppm	0
Calculate Precision	$\frac{[STD-B1] + [STD-B2] + [STD-B3]}{3} \times \frac{1}{500} \times \frac{100}{1}$		1.0 #DIV/0! Must be less than 10%

Performed By: NICK BENICS Date/Time: 8-5-20 - 0525

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: Greenslope INSTRUMENT MAKE: Thermo
MODEL: TVA1000 EQUIPMENT #: 12 SERIAL #: 1036246741
MONITORING DATE: 8-5-20 TIME: 0525

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.0 ppm	2.2 ppm	2.1 ppm

Background Value = 2.1 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	489 ppm	439 ppm	7
#2	501 ppm	451 ppm	7
#3	500 ppm	450 ppm	7
	Calculate Response Time (1+2+3) / 3		7 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.31 ppm	489 ppm	11
#2	0.18 ppm	501 ppm	1
#3	0.14 ppm	500 ppm	0
Calculate Precision	[STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/500 X 100/1		0.8 #DIV/0! Must be less than 10%

Performed By: Dwight Anderson Date/Time: 8-5-20 – 0525

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Guadalupe INSTRUMENT MAKE: Thermo

MODEL: TVA1000 EQUIPMENT #: 10 SERIAL #: 1036346773

MONITORING DATE: 8-5-20 TIME: 1150

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: $\frac{\text{(Upwind + Downwind)}}{2}$
2.0 ppm	2.2 ppm	2.1 ppm

Background Value = 2.1 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	5
#2	25 ppm	22.5 ppm	5
#3	25 ppm	22.5 ppm	5
	Calculate Response Time $\frac{(1+2+3)}{3}$		5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.19 ppm	24 ppm	1
#2	0.14 ppm	25 ppm	0
#3	0.11 ppm	25 ppm	0
Calculate Precision	$\frac{\text{[STD-B1] + [STD-B2] + [STD-B3]}}{3} \times \frac{1}{25} \times \frac{100}{1}$		1.3 #DIV/0! Must be less than 10%

Performed By: Date/Time: 8-5-20-1150

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Glenslope INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 11 SERIAL #: 1036346774

MONITORING DATE: 8-5-20 TIME: 1150

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	**Downwind Background Reading:** (Highest in 30 seconds)	**Background Value:** (Upwind + Downwind) / 2
2.0 ppm	2.2 ppm	2.1 ppm

Background Value = 2.1 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	23 ppm	20.7 ppm	6
#2	25 ppm	22.5 ppm	6
#3	25 ppm	22.5 ppm	6
Calculate Response Time (1+2+3) / 3			6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.27 ppm	23 ppm	2
#2	0.24 ppm	25 ppm	0
#3	0.09 ppm	2.5 ppm	0
Calculate Precision	$\frac{[STD-B1] + [STD-B2] + [STD-B3]}{3} \times \frac{1}{25} \times \frac{100}{1}$		2.6 #DIV/0! Must be less than 10%

Performed By: Nick Banks Date/Time: 8-5-20-1150

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: [illegible] INSTRUMENT MAKE: THERMO

MODEL: TVA1000 EQUIPMENT #: 12 SERIAL #: 1036246741

MONITORING DATE: 8-5-20 TIME: 1150

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: $\frac{\text{(Upwind + Downwind)}}{2}$
2.0 ppm	2.2 ppm	2.1 ppm

Background Value = 2.1 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	7
#2	24 ppm	21.6 ppm	7
#3	25 ppm	22.5 ppm	7
Calculate Response Time $\frac{(1+2+3)}{3}$			7 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.14 ppm	24 ppm	1
#2	0.11 ppm	24 ppm	1
#3	0.06 ppm	25 ppm	0
Calculate Precision	$\frac{\text{[STD-B1] + [STD-B2] + [STD-B3]}}{3} \times \frac{1}{25} \times \frac{100}{1}$		2.6 #DIV/0! Must be less than 10%

Performed By: Dwight Anderson Date/Time: 8-5-20 -1150

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Greenclyne INSTRUMENT MAKE: Thermo®

MODEL: TVA 1000 EQUIPMENT #: 10 SERIAL #: 1036346773

MONITORING DATE: 8-6-20 TIME: 0525

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: $\frac{(\text{Upwind} + \text{Downwind})}{2}$
2.0 ppm	2.2 ppm	2.1 ppm

Background Value = 2.1 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	6
#2	25 ppm	22.5 ppm	6
#3	25 ppm	22.5 ppm	6
Calculate Response Time $\frac{(1+2+3)}{3}$			6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.25 ppm	24 ppm	1
#2	0.17 ppm	25 ppm	0
#3	0.11 ppm	25 ppm	0
Calculate Precision	$\frac{[\text{STD-B1}] + [\text{STD-B2}] + [\text{STD-B3}]}{3} \times \frac{1}{25} \times \frac{100}{1}$		1.3 #DIV/0! Must be less than 10%

Performed By: Leigh Wade Date/Time: 8-6-20 - 0525

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Coachella INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 11 SERIAL #: 1036346774

MONITORING DATE: 8-6-20 TIME: 0525

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: $\frac{\text{(Upwind + Downwind)}}{2}$
2.0 ppm	2.2 ppm	2.1 ppm

Background Value = 2.1 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	23 ppm	20.7 ppm	6
#2	25 ppm	22.5 ppm	6
#3	25 ppm	22.5 ppm	6
Calculate Response Time $\frac{(1+2+3)}{3}$			6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.16 ppm	23 ppm	2
#2	0.11 ppm	25 ppm	0
#3	0.09 ppm	25 ppm	0
Calculate Precision	$\frac{\text{[STD-B1] + [STD-B2] + [STD-B3]}}{3} \times \frac{1}{25} \times \frac{100}{1}$		2.6 #DIV/0! Must be less than 10%

Performed By: NICK BENKS Date/Time: 8-6-20 -0525

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Guadalupe INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 12 SERIAL #: 1036246741

MONITORING DATE: 8-6-20 TIME: 0525

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.0 ppm	2.2 ppm	2.1 ppm

Background Value = 2.1 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	7
#2	24 ppm	21.6 ppm	7
#3	25 ppm	22.5 ppm	7
Calculate Response Time (1+2+3) / 3			7 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0-21 ppm	24 ppm	1
#2	0-16 ppm	24 ppm	1
#3	0-10 ppm	25 ppm	0
Calculate Precision	$\frac{[STD-B1] + [STD-B2] + [STD-B3]}{3} \times \frac{1}{25} \times \frac{100}{1}$		2.6 #DIV/0! Must be less than 10%

Performed By: Dwight Anderson Date/Time: 8-6-20 -0525

RES
Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site:

Purpose:

Operator:

Date: 9-4-20 Time: 0930

Model # TVA 1000B

Serial # #10 1036346773

INSTRUMENT INTEGRITY CHECKLIST

Battery test [✓ Pass] / Fail

Reading following ignition 1.9 ppm

Leak test [✓ Pass] / Fail / NA

Clean system check (check valve chatter) [✓ Pass] / Fail / NA

H_2 supply pressure gauge (acceptable range 9.5 - 12) [✓ Pass] / Fail / NA

Date of last factory calibration 7-3-20

Factory calibration record w/instrument within 3 months [✓ Pass] / Fail

INSTRUMENT CALIBRATION

CALIBRATION CHECK

Calibration Gas (ppm)	Actual (ppm)	% Accuracy
500	500	100%

RESPONSE TIME

Calibration Gas, ppm 500

90% of Calibration Gas, ppm 450

Time required to attain 90% of Cal Gas ppm

1. 7
2. 7
3. 6

Average 6.6

Equal to or less than 30 seconds? [✓ Y] N

Instrument calibrated to CH_4 gas.

Comments:

RES
Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #10

SERIAL NUMBER: 1036346773

TECHNICIAN: DATE: 7-3-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID			
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	501	+/- 125
10000	10000	10,120	+/- 2500
< 1	ZERO GAS	0.48	< 3

PID			
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50		+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

RES
Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES UNIT #11

SERIAL NUMBER: 1036346774

TECHNICIAN:

DATE: 7-3-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID			
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	500	+/- 125
10000	10000	10,009	+/- 2500
< 1	ZERO GAS	0.79	< 3

PID			
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50		+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

RES
Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #12

SERIAL NUMBER: 1036246741

TECHNICIAN: DATE: 7-3-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID

METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	99	+/- 25
500	500	499	+/- 125
10000	10000	10,000	+/- 2500
< 1	ZERO GAS	0.69	< 3

PID

ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50		+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #13

SERIAL NUMBER: 1102746775

TECHNICIAN:

DATE: 7-3-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID

METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	500	+/- 125
10000	10000	10,021	+/- 2500
< 1	ZERO GAS	0.58	< 3

PID

ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50		+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site:

Purpose:

Operator:

Date: 9-4-20 Time: 0945

Model # TVA1000B

Serial # #11 1036346774

INSTRUMENT INTEGRITY CHECKLIST

Battery test [✓ Pass] / Fail

Reading following ignition 1.5 ppm

Leak test [✓ Pass] / Fail / NA

Clean system check (check valve chatter) [✓ Pass] / Fail / NA

H_2 supply pressure gauge (acceptable range 9.5 - 12) [✓ Pass] / Fail / NA

Date of last factory calibration 7-3-20

Factory calibration record w/instrument within 3 months [✓ Pass] / Fail

INSTRUMENT CALIBRATION

CALIBRATION CHECK

Calibration Gas (ppm)	Actual (ppm)	% Accuracy
500	500	100%

RESPONSE TIME

Calibration Gas, ppm 500

90% of Calibration Gas, ppm 450

Time required to attain 90% of Cal Gas ppm

1. 7
2. 7
3. 6

Average 6.6

Equal to or less than 30 seconds? [✓ Y] N

Instrument calibrated to CH4 gas.

Comments:

RES
Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: ____________________

Purpose: ____________________

Operator: ____________________

Date: 9-4-20 Time: 1000

Model # TVA 1000 B

Serial # #12 1036246741

INSTRUMENT INTEGRITY CHECKLIST	
Battery test	[✓ Pass] / Fail
Reading following ignition	2.3 ppm
Leak test	[✓ Pass] / Fail / NA
Clean system check (check valve chatter)	[✓ Pass] / Fail / NA
H_2 supply pressure gauge (acceptable range 9.5 - 12)	[✓ Pass] / Fail / NA
Date of last factory calibration	7-3-20
Factory calibration record w/instrument within 3 months	[✓ Pass] / Fail

INSTRUMENT CALIBRATION

CALIBRATION CHECK

Calibration Gas (ppm)	Actual (ppm)	% Accuracy
500	500	100%

RESPONSE TIME

Calibration Gas, ppm 500

90% of Calibration Gas, ppm 450

Time required to attain 90% of Cal Gas ppm

1. 6
2. 6
3. 6

Average 6.0

Equal to or less than 30 seconds? [✓ Y] N

Instrument calibrated to CH_4 gas.

Comments: ____________________

RES
Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site:

Purpose:

Operator:

Date: 9-9-20 Time: 1015

Model # TVA 1000B

Serial # #13 1102246775

INSTRUMENT INTEGRITY CHECKLIST	
Battery test	[✓ Pass] / Fail
Reading following ignition	2.6 ppm
Leak test	[✓ Pass] / Fail / NA
Clean system check (check valve chatter)	[✓ Pass] / Fail / NA
H_2 supply pressure gauge (acceptable range 9.5 - 12)	[✓ Pass] / Fail / NA
Date of last factory calibration	7-3-20
Factory calibration record w/instrument within 3 months	[✓ Pass] / Fail

INSTRUMENT CALIBRATION

CALIBRATION CHECK

Calibration Gas (ppm)	Actual (ppm)	% Accuracy
500	500	100%

RESPONSE TIME

Calibration Gas, ppm 500

90% of Calibration Gas, ppm 450

Time required to attain 90% of Cal Gas ppm

1. 6
2. 5
3. 6

Average 5.6

Equal to or less than 30 seconds? [✓ Y] N

Instrument calibrated to CH4 gas.

Comments:

RES
Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site:

Purpose:

Operator:

Date: 9-4-20 Time: 1030

Model # TVA 1000 B

Serial # #14 1036346711

INSTRUMENT INTEGRITY CHECKLIST

Battery test	[✓ Pass] / Fail
Reading following ignition	2.1 ppm
Leak test	[✓ Pass] / Fail / NA
Clean system check (check valve chatter)	[✓ Pass] / Fail / NA
H_2 supply pressure gauge (acceptable range 9.5 - 12)	[✓ Pass] / Fail / NA
Date of last factory calibration	7-3-20
Factory calibration record w/instrument within 3 months	[✓ Pass] / Fail

INSTRUMENT CALIBRATION

CALIBRATION CHECK

Calibration Gas (ppm)	Actual (ppm)	% Accuracy
500	500	100%

RESPONSE TIME

Calibration Gas, ppm 500

90% of Calibration Gas, ppm 450

Time required to attain 90% of Cal Gas ppm

1. 7
2. 6
3. 6

Average 6.3

Equal to or less than 30 seconds? [✓ Y] N

Instrument calibrated to CH_4 gas.

Comments:

INTERMOUNTAIN SPECIALTY GASES

520 N. Kings Road • Nampa • Idaho • 83687
800-552-5003 • www.isgases.com

CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy
Air - Zero		
THC	< 2 PPM	
Oxygen	20.9%	± 2%
Nitrogen	Balance	

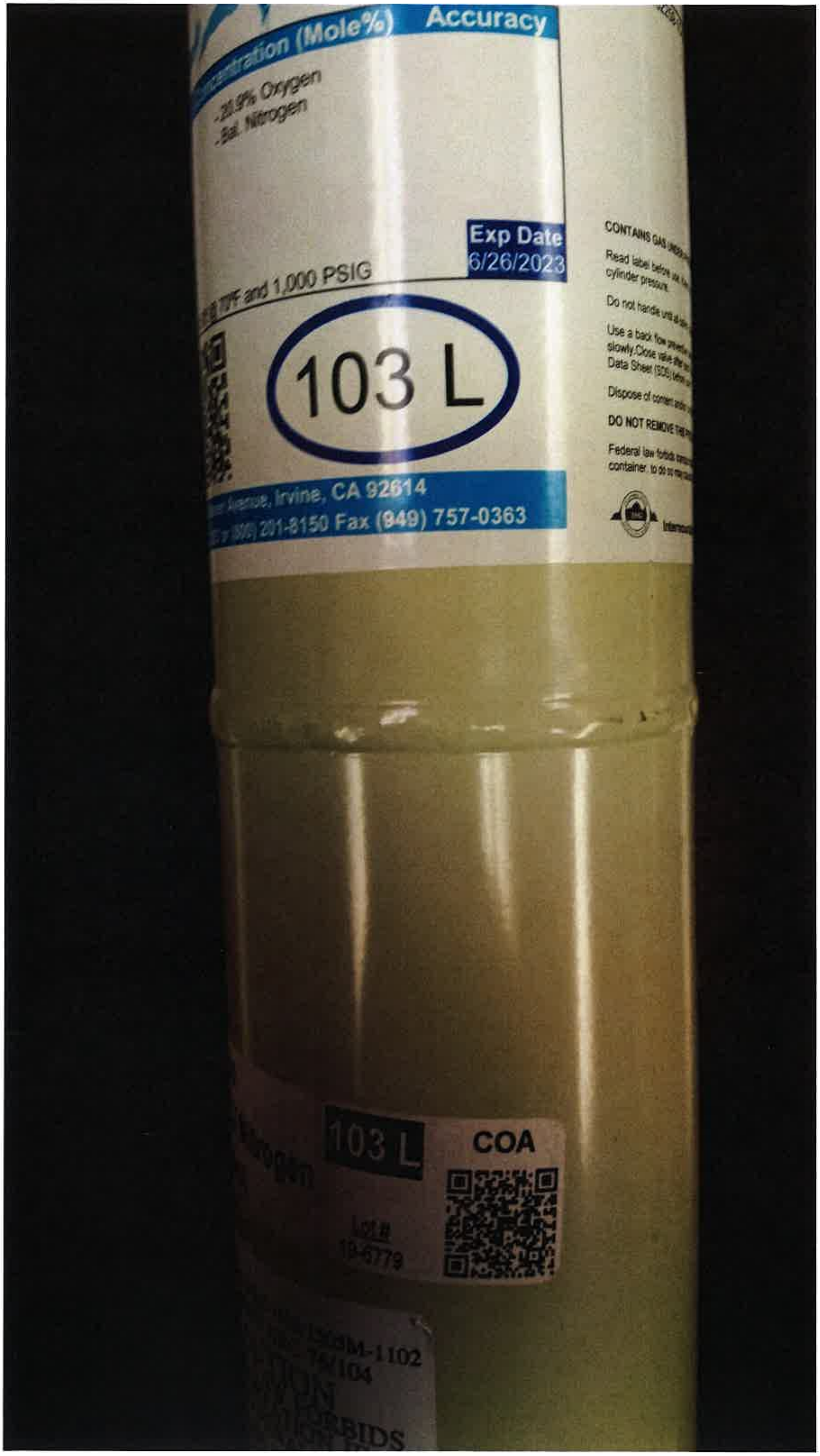
Lot # 19-6779

Mfg. Date:	4/3/2019
Parent Cylinder ID Number:	001739, 02268

Method of Preparation:
Gravimetric/Pressure Transfilled

Method of Analysis:
This mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Quality Assurance Manager
800-552-5003
Certificate Date: 4/3/2019


Concentration (Mole%)
Accuracy
-20.9% Oxygen
-Bal. Nitrogen
Exp Date
6/26/2023
70°F and 1,000 PSIG
103 L
Avenue, Irvine, CA 92614
201-8150 Fax (949) 757-0363
CONTAINS GAS UNDER
Read label before use
cylinder pressure.
Do not handle until
Use a back flow preventer
slowly.Close valve after
Data Sheet (SDS) before
Dispose of content and/or
DO NOT REMOVE THIS
Federal law forbids
container. to do so may
103 L
COA
Lot#
19-6779
M-1102
BIDS

INTERMOUNTAIN SPECIALTY GASES

520 N. Kings Road • Nampa • Idaho • 83687
800-552-5003 • www.isgases.com

CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy
Methane	25 ppm	± 5%
Air	Balance	

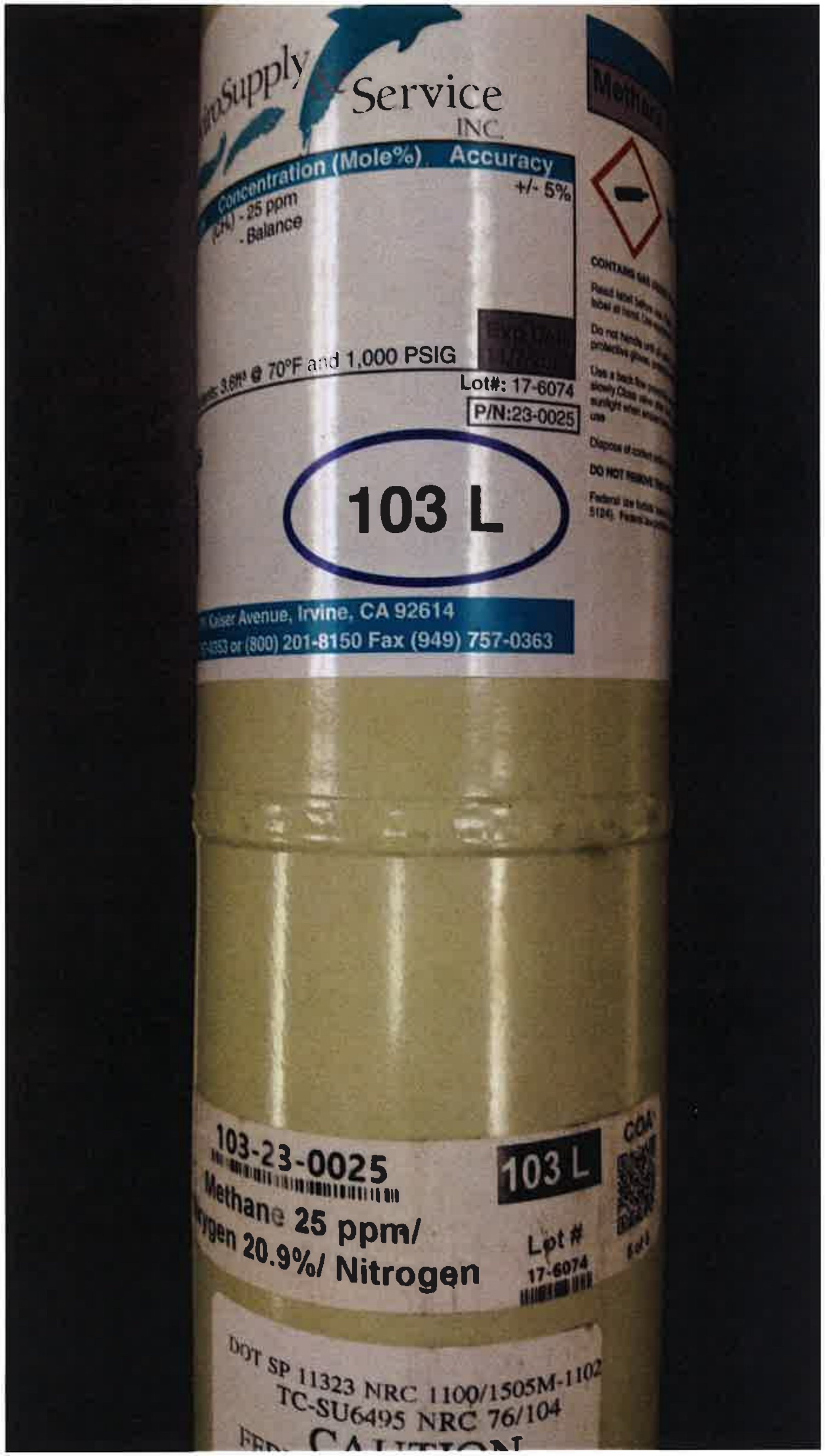
Lot # 17-6074

Mfg. Date:	10/16/2017
Parent Cylinder ID Number:	17161

Method of Preparation:
Gravimetric/Pressure Transfilled

Method of Analysis:
The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Quality Assurance Manager
800-552-5003
Certificate Date: 10/16/2017


Supply Service INC.
Concentration (Mole%) Accuracy
(CH₄) - 25 ppm
- Balance
+/- 5%
3.6ft³ @ 70°F and 1,000 PSIG
Lot#: 17-6074
P/N:23-0025
103 L
Kaiser Avenue, Irvine, CA 92614
(800) 201-8150 Fax (949) 757-0363
103-23-0025
Methane 25 ppm/
ygen 20.9%/ Nitrogen
103 L
COA
Lot #
17-6074
DOT SP 11323 NRC 1100/1505M-1102
TC-SU6495 NRC 76/104
CAUTION

Intermountain Specialty Gases
520 N. Kings Road
Nampa, ID 83687 (USA)
Phone (800) 552-5003, Fax (208) 466-9143
www.isgases.com

INTERMOUNTAIN
SPECIALTY GASES
"Your calibration gas manufacturer since 1992"

CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy (+/-)
Methane	500 ppm	2%
Oxygen	20.9 %	2%
Nitrogen	Balance UHP	

Lot #	18-6641
Mfg. Date:	12/18/2018
Expiration Date:	
Transfill Date:	see cylinder
Parent Cylinder ID Number:	001763

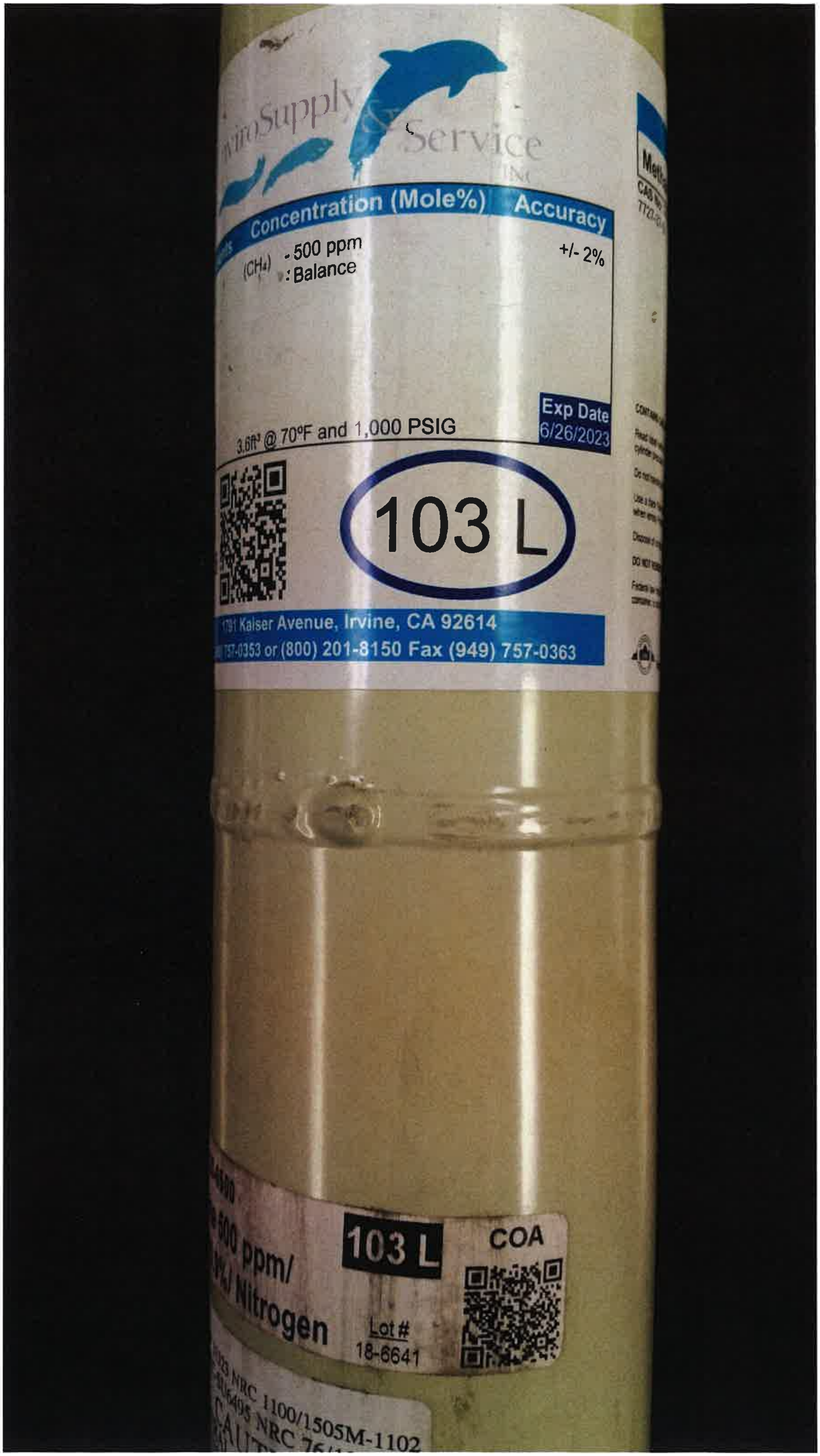
Method of Preparation:

Gravimetric/Pressure Transfilled

Method of Analysis:

The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Title: Quality Assurance Manager
Certificate Date: 12/18/2018


viroSupply & Service INC
Concentration (Mole%)
Accuracy
(CH₄) - 500 ppm
: Balance
+/- 2%
Exp Date
6/26/2023
3.6ft³ @ 70ºF and 1,000 PSIG
103 L
1791 Kaiser Avenue, Irvine, CA 92614
757-0353 or (800) 201-8150 Fax (949) 757-0363
103 L
COA
500 ppm/
Nitrogen
Lot #
18-6641
NRC 1100/1505M-1102
NRC 76/

Intermountain Specialty Gases
520 N. Kings Road
Nampa, ID 83687 (USA)
Phone (800) 552-5003, Fax (208) 466-9143
www.isgases.com

INTERMOUNTAIN
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"Your calibration gas manufacturer since 1992"

CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy (+/-)
Methane	500 ppm	2%
Oxygen	20.9 %	2%
Nitrogen	Balance UHP	

Lot #	20-7497
Mfg. Date:	7/10/2020
Expiration Date:	
Transfill Date:	see cylinder
Parent Cylinder ID Number:	TWC001763

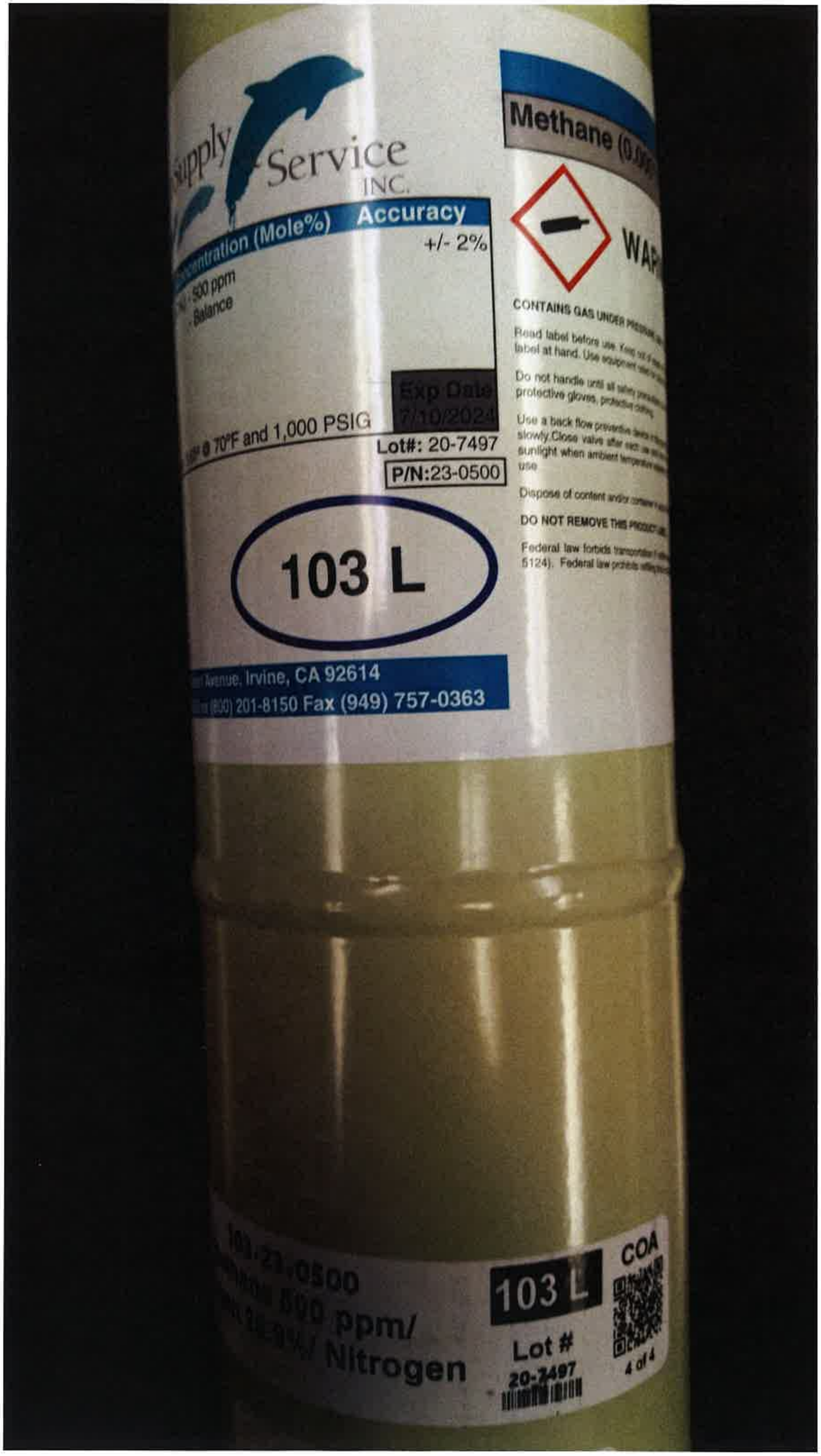
Method of Preparation:

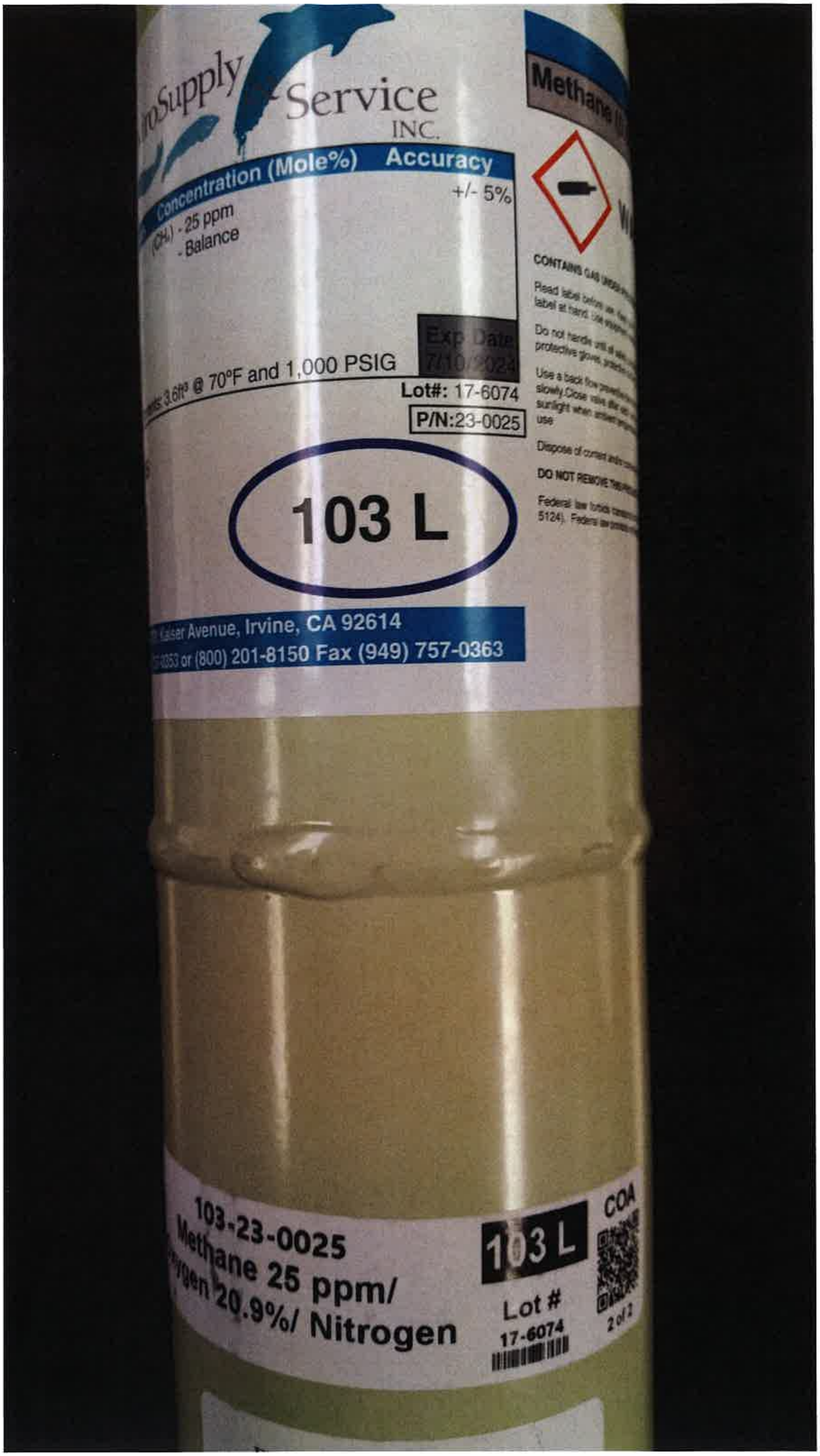
Gravimetric/Pressure Transfilled

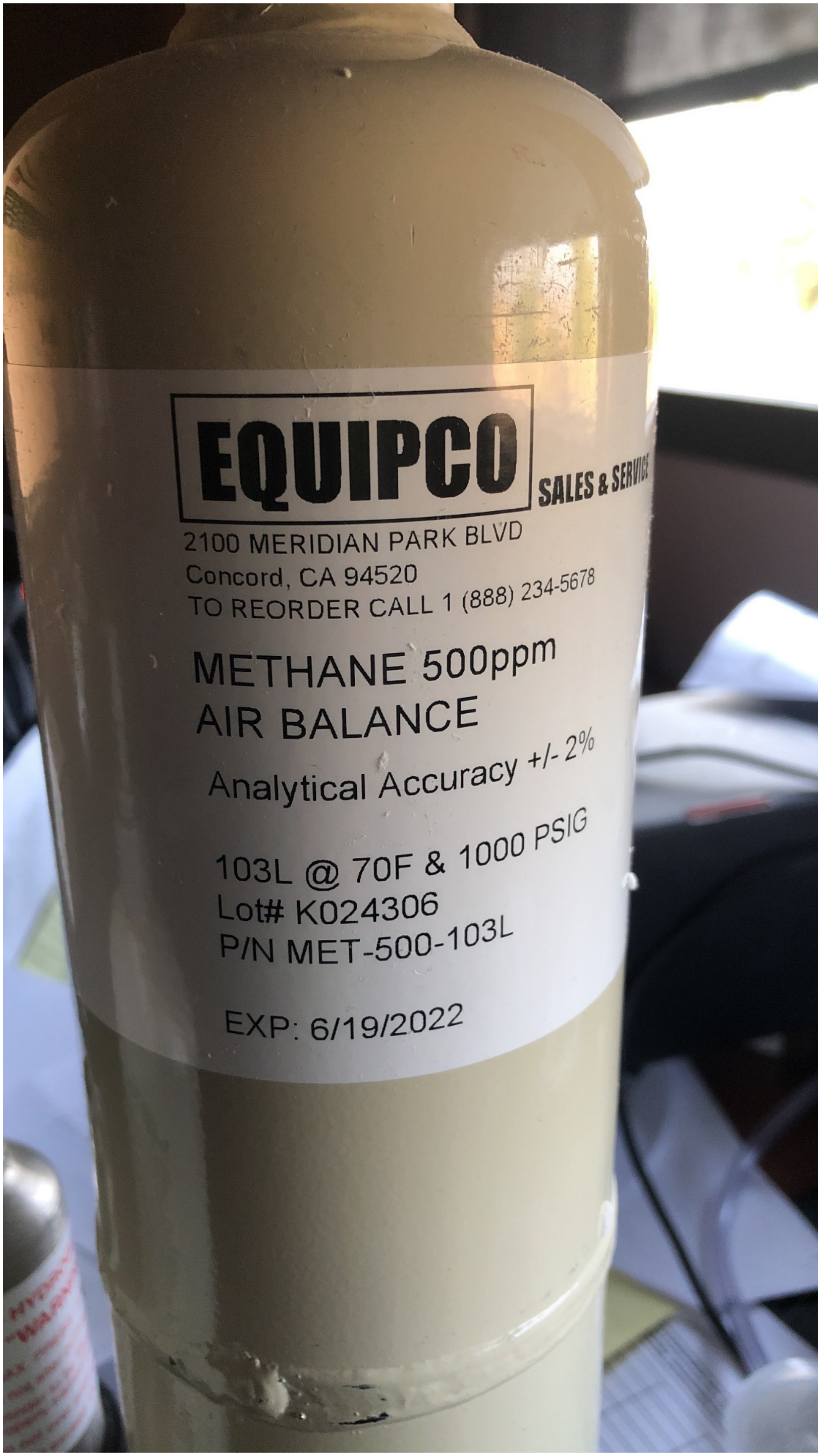
Method of Analysis:

The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Title: Quality Assurance Manager
Certificate Date: 7/10/2020


Supply Service INC.
Concentration (Mole%)
Accuracy
+/- 2%
500 ppm
Balance
Exp Date 7/10/2024
@ 70°F and 1,000 PSIG
Lot#: 20-7497
P/N:23-0500
103 L
Avenue, Irvine, CA 92614
(800) 201-8150 Fax (949) 757-0363
Methane (0.0
WAR
CONTAINS GAS UNDER PRESSURE
Read label before use. Keep out of
label at hand. Use equipment rated for
Do not handle until all safety precautions
protective gloves, protective clothing
Use a back flow preventive device
slowly. Close valve after each use
sunlight when ambient temperature
use
Dispose of content and/or container
DO NOT REMOVE THIS PRODUCT
Federal law forbids transportation
5124). Federal law prohibits refilling
103-23-0500
500 ppm/
Nitrogen
103 L
Lot #
20-7497
COA
4 of 4


roSupply Service INC.
Concentration (Mole%)
Accuracy
(CH₄) - 25 ppm
- Balance
+/- 5%
Exp Date:
7/10/2024
nts: 3.6ft³ @ 70°F and 1,000 PSIG
Lot#: 17-6074
P/N:23-0025
103 L
Kaiser Avenue, Irvine, CA 92614
0353 or (800) 201-8150 Fax (949) 757-0363
Methane
CONTAINS GAS UNDER
Read label before use
label at hand
Do not handle until all
protective gloves
Use a back flow
slowly. Close valve
sunlight when
use
Dispose of content
DO NOT REMOVE THIS
Federal law forbids
5124). Federal law
103-23-0025
Methane 25 ppm/
ygen 20.9%/ Nitrogen
103 L
Lot #
17-6074
COA
2 of 2



EQUIPCO

SALES & SERVIC

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Concord, CA 94520
TO REORDER CALL 1 (888) 234-5678

METHANE 500ppm
AIR BALANCE

Analytical Accuracy +/- 2%

103L @ 70F & 1000 PSIG
Lot# K024306
P/N MET-500-103L

EXP: 6/19/2022

INTERMOUNTAIN SPECIALTY GASES
520 N. Kings Road ● Nampa ● Idaho ● 83687
800-552-5003 ● www.isgases.com

CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy
Methane	25 ppm	± 5%
Air	Balance	

Lot # 17-6074

Mfg. Date:	10/16/2017
Parent Cylinder ID Number:	17161

Method of Preparation:
Gravimetric/Pressure Transfilled

Method of Analysis:
The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Quality Assurance Manager
800-552-5003
Certificate Date: 10/16/2017

CALIBRATION PRECISION TEST RECORD

Date: 6-8-20

Expiration Date (3 months): 9-8-20

Time: 7:15 AM _______ PM

Instrument Make: Photovac Model: MicroFid S/N: CZPB312

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 500 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 0 ppm (c)

Meter Reading for Calibration Gas: 500 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 0 ppm (e)

Meter Reading for Calibration Gas: 500 ppm (f)

Calculate Precision:

$$\frac{\{|(500) - (b)| + |(500) - (d)| + |(500) - (f)|\}}{3} \times \frac{1}{500} \times 100$$

_____ % (must be < than 10%)

Performed By: Juan Barocio

RESPONSE TIME TEST RECORD

Date: 6-8-20

Expiration Date (3 months): 9-8-20

Time: 7:15 AM ________ PM

Instrument Make: Photovac Model: MicroFid S/N: CZPD312

Measurement #1:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 2 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 2 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 2 seconds (c)

Calculate Response Time:

$\frac{(a) + (b) + (c)}{3} =$ 2 seconds (must be less than 30 seconds)

Performed By: Juan Bogado

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Guad ~~Altamont~~ Landfill

Date: 9-3-20

Time: ______ AM 2:13 PM

Instrument Make: Photovac Model: MicroFid S/N: C2 PD312

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 495 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 0 ppm (a)
2. Downwind Reading (highest in 30 seconds): 0 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 0 ppm

Performed By: Juan Barocio

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Guadalupe Date: 8/12/20

Time: ______ AM 12:30 PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 499 ppm

3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 1 ppm (a)
2. Downwind Reading (highest in 30 seconds): 2 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 1.5 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 7/15/2020

Expiration Date (3 months): 10/15/2020

Time: 9:45 AM ______ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 498 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 0 ppm (c)

Meter Reading for Calibration Gas: 497 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 0 ppm (e)

Meter Reading for Calibration Gas: 499 ppm (f)

Calculate Precision:

$$\frac{\{|(500) - (b)| + |(500) - (d)| + |(500) - (f)|\}}{3} \times \frac{1}{500} \times 100$$

0.4 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 7/15/20

Expiration Date (3 months): 10/15/20

Time: 9:45 AM ______ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Stabilized Reading Using Calibration Gas: 498 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 2 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 497 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 499 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 7 seconds (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} =$$ 4.666 seconds (must be less than 30 seconds)

Performed by: M. Bernard

Guadalupe Rubbish
Disposal Co., Inc.
P.O. Box 20957
San Jose, CA 95160

July 31, 2020

Ms. Becky Azevedo
Guadalupe Rubbish Disposal Co., Inc
15999 Guadalupe Mines Road
San Jose, CA 95120

Re: Second Quarter 2020 Surface Emissions and Component Leak Monitoring Report for Guadalupe Recycling & Disposal Facility

Dear Ms. Azevedo:

This monitoring report for **"Guadalupe Rubbish Disposal Co., Inc. (GRDC)"** contains the results of the Second Quarter 2020 Integrated and Instantaneous Surface Emissions Monitoring (SEM) and Component Leak Monitoring. Initial surface emissions monitoring was performed by Roberts Environmental Services, LLC. (RES). Re-monitoring of surface emissions and component leak monitoring was conducted by RES and/or Waste Management (WM) personnel.

APPLICABLE REQUIREMENTS

The monitoring discussed in this report was conducted in accordance with the following requirements:

Surface Emission Monitoring (SEM)

- New Source Performance Standard (NSPS), Title 40 of the Code of Federal Regulations (CFR) §60.755 (c) and (d), 40 CFR 60, Appendix A Method 21, promulgated by the United States Environmental Protection Agency (USEPA).
- California Code of Regulations (CCR) Title 17, Subchapter 10, Article 4, Subarticle 6, §95460 to §95476, known as the Assembly Bill 32 (AB32) landfill methane rule (LMR).
- Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 303 (Landfill Surface Requirements) and Section 607 (Landfill Surface Inspection Procedures).

Component Leak

- BAAQMD Regulation 8, Rule 34, Section 301 (Landfill Gas Collection and Emission Control System Requirements) and Section 602 (Collection and Control System Leak Inspection procedures).
- California Code of Regulations (CCR) Title 17, Subchapter 10, Article 4, Subarticle 6, §95464, known as the AB32 LMR.

GRDC Plan and Alternative Compliance Measures

An Alternative Compliance Option (ACO) Request was submitted to the California Air Resources Board (CARB) on May 16, 2011. After receipt of comments, this ACO was amended, restated, and submitted to BAAQMD on July 1, 2016. SEM and Component Leak monitoring was conducted per the methods outlined in the July 1, 2016 ACO.

PROCEDURES

General

The surface of the GRDC disposal area has been divided into one-hundred-and-five (105), approximately 50,000 square foot monitoring grids. Of these grids, eleven (11) currently have no waste in place. The entire landfill surface is monitored with the exception of active portions of the Landfill, slope areas, and as requested in the approved ACO, areas containing only asbestos-containing waste, inert waste and/or non-decomposable waste which are excluded for safety as allowed by CCR Title 17 §95466.

Field personnel walked the surface of the landfill following the walking pattern as depicted the 2011 GRDC AB-32 SEM Plan, which traverses each monitoring grid. Additionally, in accordance with the provisions of 40 CFR 60.753(d) and 60.755(c)(1-3), the entire perimeter of the landfill surface was monitored. During the event, special attention was given to monitoring unusual cover conditions (stressed vegetation, cracks, seeps, etc.) and any areas with unusual odors.

The monitoring probe was positioned 2 inches above the ground surface. While walking, the wand tip of the FID was held within 2 inches of the landfill surface while traversing the grid. Per the approved alternative request, the wand tip of the FID was held at 2 inches of vegetation in areas where the landfill surface is covered with low-lying vegetation such as grasses while traversing the grid.

Instantaneous Surface Emissions Monitoring

The Instantaneous and Integrated SEM was conducted using flame ionization detectors (FID), calibrated to 500 parts per million by volume (ppm_v) methane, which meets or exceeds all guidelines set forth in the CCR Title 17 §95471(a) and NSPS. The FIDs were calibrated prior to use in accordance with the United States Environmental Protection Agency (USEPA) Method 21 requirements. The SEM procedures followed the requirements of 40 CFR 60.755 (c) and (d) and CCR Title 17 §95471(c)(2).

RES personnel walked the surface of the landfill on a grid by grid basis with the wand tip held at 2 inches from the landfill surface. While sampling the grid; the technicians also checked any surface impoundments (wells or otherwise) for leaks. Technicians also checked any surface cracks, seeps, or other areas that show evidence of surface emissions (odors or distressed vegetation). Active and sloped areas excluded for safety were documented on field data sheets and maps.

All instantaneous surface monitoring was performed in accordance with the applicable requirements referenced in this report. Any detections of methane above 200 ppm_v (areas of concern) or 500 ppm_v (exceedances) for instantaneous were recorded, flagged, and marked on an SEM Map, which, wherever required, is included in the Appendices of this report. Applicable corrective action and re-monitoring timelines are listed below:

- Corrective actions must be initiated within 5 days of the initial exceedance and re-monitoring shall be conducted within 10 days of the initial exceedance.
    - If the re-monitoring event shows the exceedance is corrected, the location shall be re-monitored within 1 month of the initial exceedance.
    - If the 1-month re-monitoring event shows the location is still corrected, all re-monitoring requirements have been completed.
- If either the first 10-day or 1-month re-monitoring events show a second exceedance, additional corrective actions shall be completed and a second re-monitoring event shall be conducted within 10 days of the second exceedance.
- If the second 10-day re-monitoring event shows the second exceedance is corrected, the location shall be re-monitored within 1 month of the initial exceedance. If the 1-month re-monitoring event shows the area is still corrected, monitoring requirements have been completed.
- If any location shows three exceedances, an additional well shall be installed within 120 days of the initial exceedance.

Integrated Surface Emissions Monitoring

The Integrated surface monitoring was conducted using a TVA 1000 calibrated to 25 ppm_v for the integrated monitoring, which meets or exceeds all guidelines set forth in the CCR Title 17 §95471(a). The field technician traversed the grid walking path over a continuous 25-minute period using the TVA 1000 held within 2 inches above the landfill surface. The Integrated monitoring procedures followed the requirements of CCR Title 17 §95471(c)(2).

Grids with results greater than 25 ppm_v were recorded, marked on the SEM map, and flagged for remediation. Any grids with integrated concentrations greater than 25 ppm_v are subject to the following re-monitoring timeline:

- Re-monitoring shall be conducted within 10 days of the initial exceedance.
- If the 10-day re-monitoring event shows the exceedance is corrected, all re-monitoring requirements have been completed.
- If either the first 10-day re-monitoring event shows a second grid exceedance, additional corrective actions shall be completed and a second re-monitoring event shall be conducted within 10 days of the second exceedance.

- If the second 10-day re-monitoring event shows the second exceedance is corrected, all re-monitoring requirements have been completed.

- The second 10-day re-monitoring event shows a third grid exceedance, an additional well shall be installed within 120 days of the third exceedance.

Component Leak Monitoring Procedures

WM personnel monitored the exposed LFG components under positive pressure (pipes, wellheads, valves, blowers, and other mechanical appurtenances) using a TVA 1000 calibrated to 500 ppm_v. All leaks measured one half inch or less from the component exceeding the compliance limit of 500 ppm_v per requirements outlined in pursuant to CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B) and 1,000 ppm_v per requirements outlined in BAAQMD 8-34-303 were recorded. Applicable corrective action and re-monitoring timelines are listed below:

- Leaks between 500 and 999 ppm_v must be corrected and re-monitored within 10 days of the initial exceedance.

- Leaks at or above 1000 ppm_v must be corrected and re-monitored within 7 days of the initial exceedance.

SECOND QUARTER 2020 SEM AND COMPONENT LEAK RESULTS

The following is a summary of the SEM and component leak monitoring results completed for the Second Quarter 2020.

Instantaneous Surface Emissions Monitoring Results

The Instantaneous surface monitoring was performed on June 4, 2020 in accordance with the NSPS, BAAQMD 8-34, and CCR Title 17 §95469 and ACO. Results and data from the monitoring are presented in Attachment A.

Initial Monitoring Event Exceedances of 500 ppm_v

There were 15 exceedances of 500 ppm_v as methane detected June 4, 2020. Corrective actions to initiate repairs of the exceedances were completed within five days for all locations (June 5, 2020).

Ten-Day Re-Monitoring Results

The 10-day re-monitoring event was completed on June 8, 2020. All locations were observed at less than 500 ppm_v.

One-Month Re-Monitoring Results

The 1-month re-monitoring event was completed on July 2, 2020. All locations were observed at less than 500 ppm_v.

Readings between 200 ppm$_v$ and 499 ppm$_v$ (Initial and Re-monitored)

There were no readings between 200 ppm$_v$ and 499 ppm$_v$ as methane detected during the initial monitoring event. Pursuant to CCR Title 17 §95471(c), instantaneous surface emissions exceeding 200 ppm$_v$ but below 500 ppm$_v$ are required to be recorded.

Integrated Surface Emissions Monitoring Results

The Integrated surface sampling (ISS) was performed on June 3 and 4, 2020, in accordance with the ACO and requirements outlined in CCR Title 17 §95469.

Initial Monitoring Event Exceedances of 25 ppm$_v$

There were no grids with exceedances of 25 ppm$_v$ as methane detected during monitoring on June 3 and 4, 2020.

The average methane concentration of each grid was recorded during the monitoring event per applicable requirements. See Attachment B, Integrated SEM 25 ppm$_v$ Exceedances and Monitoring Log, and SEM Map included in Attachment B, for details.

Component Leak Monitoring Results

Component leak monitoring was conducted per the applicable requirements on June 4, 2020. No leaks greater than 500 ppm$_v$ were identified during this monitoring period. Please see Attachment C, for details.

WEATHER CONDITIONS

Wind Speed Conductions during the Surface Emission Monitoring Events

Wind speeds during initial monitoring were monitored using a portable weather station. The station has a strip chart that records the wind speed and direction. After completion of monitoring, the strip chart is reviewed by RES office staff to determine the average and maximum wind speeds during the monitoring and the average wind direction during each grid and ensure that the wind speed requirements are met (no gusts greater than 20 mph, average wind speed cannot exceed 10 mph). These values are documented in the field data sheets. The strip chart data is scanned and included in Attachment D.

Precipitation Requirements

Per the GRDC’s ACO, the initial monitoring event was carefully scheduled so that it could be conducted in compliance with the precipitation requirements (no measurable precipitation within 24 hours). Re-monitoring events are required to adhere to strict timelines. Any conflicts with precipitation requirements are discussed in the results section of this document.

EQUIPMENT CALIBRATION

The portable analyzers were calibrated to meet the instrument specifications requirements of U.S. EPA Method 21. The calibration gas used was methane, diluted to a nominal concentration of 25 ppm$_v$ in air for integrated sample analyses and 500 ppm$_v$ in air for instantaneous monitoring to comply with the requirements.

All analyzers were calibrated prior to use with required response time and precision related instrument checks. Calibration records include the following: One time response time test record; One time response factor determination for methane; Calibration Precision test records (test to be performed every 3 months); and Daily Instrument Calibration and Background test records for each gas meter that was used during the quarterly monitoring event. The calibration log records are included in Attachment E.

All monitoring was completed in accordance with the applicable regulatory requirements or approved alternatives. If you have any questions regarding this report, please do not hesitate to contact me at (510) 875-9338.

Thank you,
Waste Management

Rajan Phadnis
Environmental Protection Specialist

Attachment A – Instantaneous Surface Emission Monitoring Event Records

- Monitoring Logs and Exceedances
- Surface Monitoring Weather Data
- SEM Map

Attachment B – Integrated Surface Emission Monitoring Event Records

- Monitoring Logs and Exceedances
- Surface Monitoring Weather Data
- SEM Map

Attachment C – Component Leak Monitoring Event Records

- Component Leak Exceedances and Monitoring Logs

Attachment D – Weather Station Data

- Strip Chart Data

Attachment E – Calibration Records

- Instrument and Gas Calibration Records

Attachment A

Instantaneous Surface Emission Monitoring Event Records

Table A.1
Instantaneous Landfill Surface Emissions Monitoring
Initial Monitoring Event Areas of Concern

2020 QUARTER: 2
PERFORMED BY: RES
LANDFILL NAME: Guadalupe Recycling & Disposal Facility

Flag Number	Grid Number	Date of Monitoring	Concentration of Emission (ppmv)	Comments
O14	54	6/4/2020	1,016	Surface
O15	103	6/4/2020	4,063	Well 138
O1	36	6/4/2020	7,100	Well 185
O2	54	6/4/2020	1,300	Surface
O3	49	6/4/2020	1,000	Surface
O4	26	6/4/2020	4,000	Pipe Cap
O5	88	6/4/2020	5,408	Well 205
O6	85	6/4/2020	2,800	Well 230
O7	72	6/4/2020	1,700	Surface
O8	67	6/4/2020	1,500	Surface
O21	13	6/4/2020	4,100	Well 178
O22	31	6/4/2020	3,900	Well 236
O24	66	6/4/2020	2,366	Well 226
O25	66	6/4/2020	2,500	Well 238
O26	77	6/4/2020	995	Surface

Notes: Please refer to field data sheets for details

Table A.2
Instantaneous Landfill Surface Emissions Monitoring
Exceedance and Monitoring Logs (NSPS/BAAQMD 8-34)

2020 QUARTER: 2

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: WM-Marcus

LANDFILL NAME: **Guadalupe Recycling & Disposal Facility**

Initial Monitoring Event			**Corrective action within 5 days**		**1st 10-day Follow-Up**			**1st 30-day Follow-Up**			
Flag Number	Monitoring Date	Field Reading	Repair Date	Action taken to repair Exceedance	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	**Comments**
O14	6/4/2020	1,016	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		Surface
O15	6/4/2020	4,063	6/5/2020	Added Soil/ Water	6/8/2020	25 ppm		7/2/2020	50 ppm		Well 138
O1	6/4/2020	7,100	6/5/2020	Added Soil/ Water	6/8/2020	40 ppm		7/2/2020	0 ppm		Well 185
O2	6/4/2020	1,300	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		Surface
O3	6/4/2020	1,000	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		Surface
O4	6/4/2020	4,000	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		Pipe Cap
O5	6/4/2020	5,408	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	14 ppm		Well 205
O6	6/4/2020	2,800	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		Well 230
O7	6/4/2020	1,700	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		Surface
O8	6/4/2020	1,500	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		Surface
O21	6/4/2020	4,100	6/5/2020	Added Soil/ Water	6/8/2020	50 ppm		7/2/2020	100 ppm		Well 178
O22	6/4/2020	3,900	6/5/2020	Added Soil/ Water	6/8/2020	5 ppm		7/2/2020	0 ppm		Well 236
O24	6/4/2020	2,366	6/5/2020	Added Soil/ Water	6/8/2020	28 ppm		7/2/2020	0 ppm		Well 226
O25	6/4/2020	2,500	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		Well 238
O26	6/4/2020	995	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		Surface

Table A.3
Instantaneous Landfill Surface Emissions Monitoring Exceedance and Monitoring Logs (AB-32)

2020 QUARTER: 2

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: WM-Marcus

LANDFILL NAME: **Guadalupe Recycling & Disposal Facility**

Initial Monitoring Event			1st Re-mon Event - 10 Days			2nd Re-mon Event - 10 Days			
Exceedance Grid ID No.	Monitoring Date	Field Reading	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	**Comments**
54	6/4/2020	1,016	6/8/2020	0 ppm					Surface
103	6/4/2020	4,063	6/8/2020	25 ppm					Well 138
36	6/4/2020	7,100	6/8/2020	40 ppm					Well 185
54	6/4/2020	1,300	6/8/2020	0 ppm					Surface
49	6/4/2020	1,000	6/8/2020	0 ppm					Surface
26	6/4/2020	4,000	6/8/2020	0 ppm					Pipe Cap
88	6/4/2020	5,408	6/8/2020	0 ppm					Well 205
85	6/4/2020	2,800	6/8/2020	0 ppm					Well 230
72	6/4/2020	1,700	6/8/2020	0 ppm					Surface
67	6/4/2020	1,500	6/8/2020	0 ppm					Surface
13	6/4/2020	4,100	6/8/2020	50 ppm					Well 178
31	6/4/2020	3,900	6/8/2020	5 ppm					Well 236
66	6/4/2020	2,366	6/8/2020	28 ppm					Well 226
66	6/4/2020	2,500	6/8/2020	0 ppm					Well 238
77	6/4/2020	995	6/8/2020	0 ppm					Surface

Table A.4
Instantaneous Landfill Surface Emissions Monitoring
Areas of Concern Greater than 200 ppmv

2020 QUARTER: 2

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: NA

LANDFILL NAME: **Guadalupe Recycling & Disposal Facility**

Initial Monitoring Event			**Re-mon Event**		**Comments**
Exceedance Grid ID No.	Monitoring Date	Field Reading	Monitoring Date	Reading ppm	
None					

Instantaneous Landfill Surface Emissions Monitoring
Exceedance and Monitoring Logs (NSPS/BAAQMD 8-34)

2020 QUARTER: 2
INITIAL MONITORING PERFORMED BY: RES
FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard
LANDFILL NAME: GUADALUPE LANDFILL

Wind Speed: 12 MPH
Wind Direction: S

Wind Speed: 5 MPH
Wind Direction: W

Initial Monitoring Event			Corrective action within 5 days		1st 10-day Follow-Up			1st 30-day Follow-Up			Comments
Flag Number	Monitoring Date	Field Reading	Repair Date	Action taken to repair Exceedance	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	Monitoring Date	No Exced. <500 ppm	Exced. >500 ppm	
O14	6/4/2020	1,016	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		
O15	6/4/2020	4,063	6/5/2020	Added Soil/ Water	6/8/2020	25 ppm		7/2/2020	50 ppm		
O1	6/4/2020	7,100	6/5/2020	Added Soil/ Water	6/8/2020	40 ppm		7/2/2020	0 ppm		
O2	6/4/2020	1,300	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		
O3	6/4/2020	1,000	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		
O4	6/4/2020	4,000	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		
O5	6/4/2020	5,408	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	14 ppm		
O6	6/4/2020	2,800	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		
O7	6/4/2020	1,700	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		
O8	6/4/2020	1,500	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		
O21	6/4/2020	4,100	6/5/2020	Added Soil/ Water	6/8/2020	50 ppm		7/2/2020	100 ppm		
O22	6/4/2020	3,900	6/5/2020	Added Soil/ Water	6/8/2020	5 ppm		7/2/2020	0 ppm		
O24	6/4/2020	2,366	6/5/2020	Added Soil/ Water	6/8/2020	28 ppm		7/2/2020	0 ppm		
O25	6/4/2020	2,500	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		
O26	6/4/2020	995	6/5/2020	Added Soil/ Water	6/8/2020	0 ppm		7/2/2020	0 ppm		

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEIGH WADE, OMAR PERALTA

AARON MCBRIDE

NICK BANKS

Cal. Gas Exp. Date: 9-21-20

Date: 6-4-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 63 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.6

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
1	LW	0545	0600	34	1	2	9	
2	AM	0545	0600	28	1	2	9	
3	NB	0545	0600	19	1	2	9	
4	OP	0545	0600	27	1	2	9	
5	LW	0600	0615	45	1	2	2	
6	AM	0600	0615	58	1	2	2	
7	NB	0600	0615	32	1	2	2	
8	OP	0600	0615	25	1	2	2	
9	LW	0615	0630	47	1	2	2	
10	AM	0615	0630	32	1	2	2	
11	NB	0615	0630	19	1	2	2	
12	OP	0615	0630	57	1	2	2	
13	LW	0630	0645	4,100	1	2	8	WELL 178
18	AM	0630	0645	36	1	2	8	
15	NB	0630	0645	85	1	2	8	
16	OP	0630	0645	41	1	2	8	
19	LW	0645	0700	22	1	2	12	
20	AM	0645	0700	45	1	2	12	
21	NB	0645	0700	68	1	2	12	
24	OP	0645	0700	15	1	2	12	
25	LW	0700	0715	39	1	2	12	
26	AM	0700	0715	4,000	1	2	12	WELL 205
29	NB	0700	0715	17	1	2	12	
30	OP	0700	0715	64	1	2	12	
31	LW	0715	0730	3900	1	2	8	WELL 236
35	AM	0715	0730	16	1	2	8	
36	NB	0715	0730	7,100	1	2	8	WELL 185
41	OP	0715	0730	37	1	2	8	
42	LW	0730	0745	81	1	2	11	
47	AM	0730	0745	18	1	2	11	

Attach Calibration Sheet

Attach site map showing grid ID

Page 1 of 3

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEIGH WADE | ORENPZENCLTH
AARON MCBRIDE
NICK BERKS

Cal. Gas Exp. Date: 9-21-20

Date: 6-4-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 71 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.6

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
48	NB	0730	0745	16	1	2	11	
49	OP	0730	0745	1,000	1	2	11	SURFACE
54	LW	0745	0800	1300	1	2	10	SURFACE
59	AM	0745	0800	115	1	2	10	
64	NB	0745	0800	64	1	2	10	
69	OP	0745	0800	42	1	2	10	
74	LW	0800	0815	97	1	2	11	
79	AM	0800	0815	55	1	2	11	
80	NB	0800	0815	43	1	2	11	
84	OP	0800	0815	65	1	2	11	
88	LW	0815	0830	5408	1	2	12	WELL 230
93	AM	0815	0830	18	1	2	12	
96	NB	0815	0830	16	1	2	12	
97	OP	0815	0830	21	1	2	12	
104	LW	0830	0845	14	1	2	12	
105	AM	0830	0845	37	1	2	12	
102	NB	0830	0845	49	1	2	12	
100	OP	0830	0845	32	1	2	12	
98	LW	0845	0900	25	2	3	12	
94	AM	0845	0900	61	2	3	12	
89	NB	0845	0900	43	2	3	12	
85	OP	0845	0900	2,800	2	3	12	WELL 227
81	LW	0900	0915	29	2	3	12	
76	AM	0900	0915	30	2	3	12	
77	NB	0900	0915	47	2	3	12	
66	OP	0900	0915	2500	2	3	12	WELL 238
61	LW	0915	0930	59	2	3	12	
103	AM	0915	0930	4063	2	3	12	WELL 138
101	NB	0915	0930	21	2	3	12	
99	OP	0915	0930	18	2	3	12	

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 3

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: Leigh Wade; Oscar Puncheta
Aaron McBride
Nick Banks

Cal. Gas Exp. Date: 9-21-20

Date: 6-4-20 Instrument Used: TVA 1000 Grid Spacing: 25'

Temperature: 85 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.6

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
95	LW	0930	0945	56	2	3	12	
91	AM	0930	0945	39	2	3	12	
92	NB	0930	0945	60	2	3	12	
90	OP	0930	0945	45	2	3	12	
86	LW	0945	1000	27	2	3	12	
87	AM	0945	1000	21	2	3	12	
82	NB	0945	1000	74	2	3	12	
83	OP	0945	1000	52	2	3	12	
77	LW	1000	1015	995	2	3	12	SURFACE
78	AM	1000	1015	107	2	3	12	
72	NB	1000	1015	1700	2	3	12	SURFACE
73	OP	1000	1015	45	2	3	12	
67	LW	1015	1030	1500	2	3	12	SURFACE

Attach Calibration Sheet
Attach site map showing grid ID

Page 3 of 3

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: Leishwade

Cal. Gas Exp. Date: ______

Date: 6-4-20 Instrument Used: ______ Grid Spacing: ______

Temperature: ______ Precip: ______ Upwind BG: ______ Downwind BG: ______

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
37								Active trash
43								
50								
55								
60								
65								
70								
75								
14								steep slopes
17								
22								
27								
32								
38								
44								
51								
56								
23								no waste in place
28								
33								
34								
39								
40								
45								
46								
52								
53								
57								
58								
62								

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 2

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEIGHWADE

Cal. Gas Exp. Date:

Date: 6-4-20 Instrument Used: Grid Spacing:

Temperature: Precip: Upwind BG: Downwind BG:

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
63								↓
68								

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 2

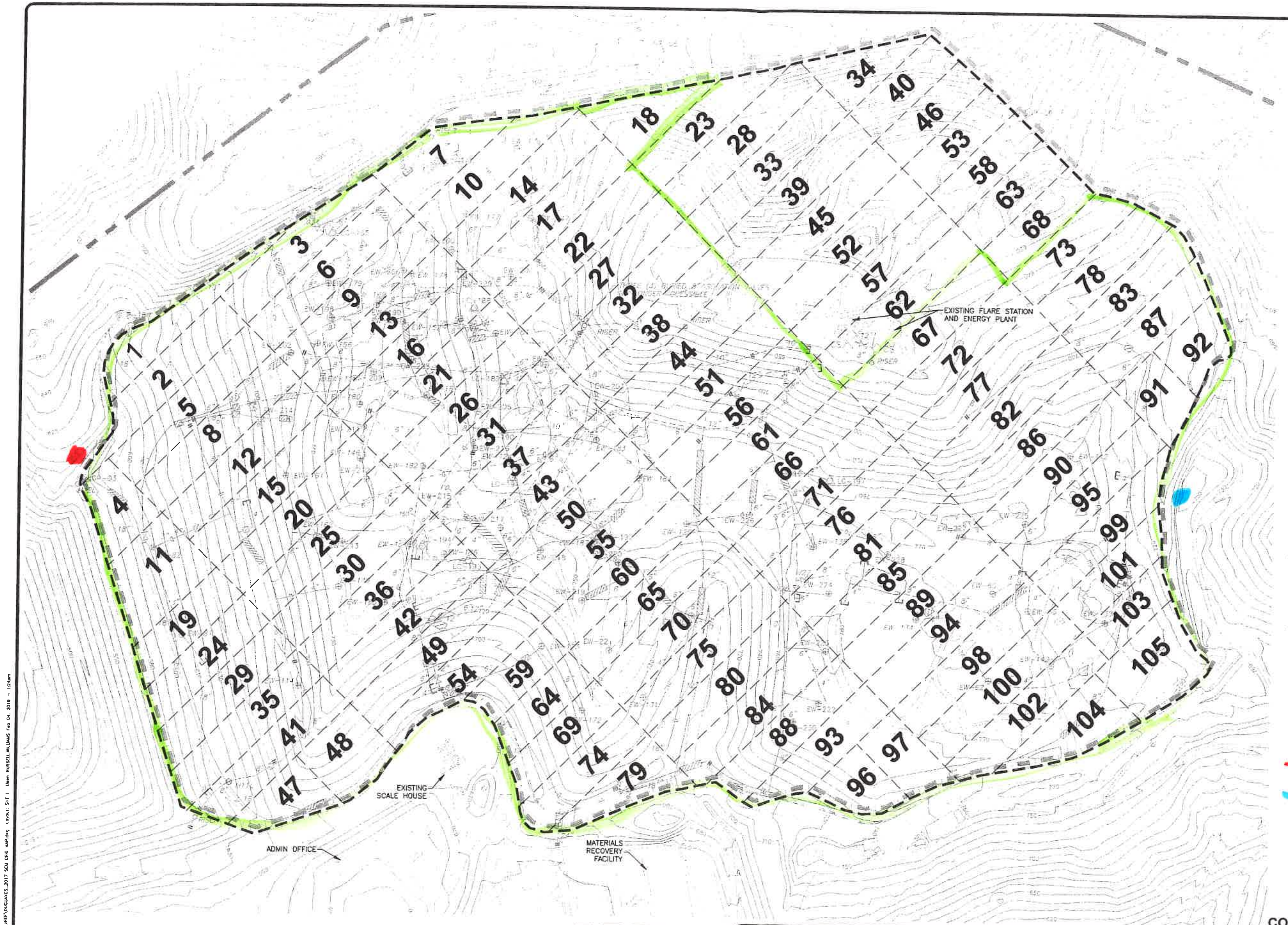
Orange Flag Landfill Surface Emissions Monitoring
Exceedances and Monitoring Log

Site: GuaDalupE

Quarter / Year:	2ND 2020
Technician:	LEIghWADE
Instrument:	TVA 1000
Calibration Standard:	500ppm

Page of Pages

Initial Monitoring Event				First Re-Monitoring Event - 10 Days			Second Re-Monitoring Event - 10 Days			30-Day Follow-up Monitoring			Comments
Flag Number	Grid Number	Field Reading (ppm)	Date Monitored	Date Monitored	No Excd. <500 ppm	Excd. >500 ppm	Date Monitored	No Excd. <500 ppm	Excd. >500 ppm	Date Monitored	No Excd. <500 ppm	Excd. >500 ppm	
O-14	54	1016	6-4-20										SURFACE
O-15	103	4063											Well 138
O-1	36	7100											Well 185
O-2	54	1300											SURFACE
O-3	49	1000											SURFACE
O-4	26	4000											Well 205
O-5	88	5408											Well 230
O-6	85	2800											Well 227
O-7	72	1700											SURFACE
O-8	67	1500											SURFACE
O-21	13	4100											Well 178
O-22	31	3900											Well 236
O-24	66	2366											Well 226
O-25	66	2500											Well 238
O-26	72	995											SURFACE
O-													
O-													
O-													
O-													
O-													
O-													
O-													
O-													
O-													
O-													



LEGEND

PROPERTY BOUNDARY
EXISTING 10' CONTOUR
EXISTING ABOVEGROUND PIPING
EXISTING BELOWGROUND PIPING
EXISTING HORIZONTAL COLLECTOR
EXISTING LFG EXTRACTION WELL
EXISTING REMOTE WELLHEAD
EXISTING PROBE
EXISTING HORIZONTAL COLLECTOR WELLHEAD
EXISTING LOCAL CONTROL WELL
EXISTING CONTROL VALVE
EXISTING BLIND FLANGE
EXISTING FLANGE CONNECTION
EXISTING REDUCER FITTING
EXISTING ROAD CROSSING
EXISTING CONDENSATE SUMP
EXISTING RISER
EXISTING CAP ON EXISTING PIPE

0 125 250
SCALE IN FEET

NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY MILLER CREEK AERIAL MAPPING OF BURIEN, WA. DATE OF PHOTOGRAPHY: MARCH 9, 2018. DATUM: HORIZONTAL – NAD 83, VERTICAL – NAD 88.
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3. 2018 GCCS IMPROVEMENTS AS-BUILT PIPING PER `SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: DECEMBER 11, 2018.

2ND QUARTER 2020

NSpS

🟥 DOWNWIND

🟦 UPWIND

CONCEPTUAL - NOT FOR CONSTRUCTION

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 2/4/2019
DRAWN BY RAW
DESIGNED BY AMN
CHECKED BY PJS
APPROVED BY PJS

cornerstone
A TETRA TECH COMPANY

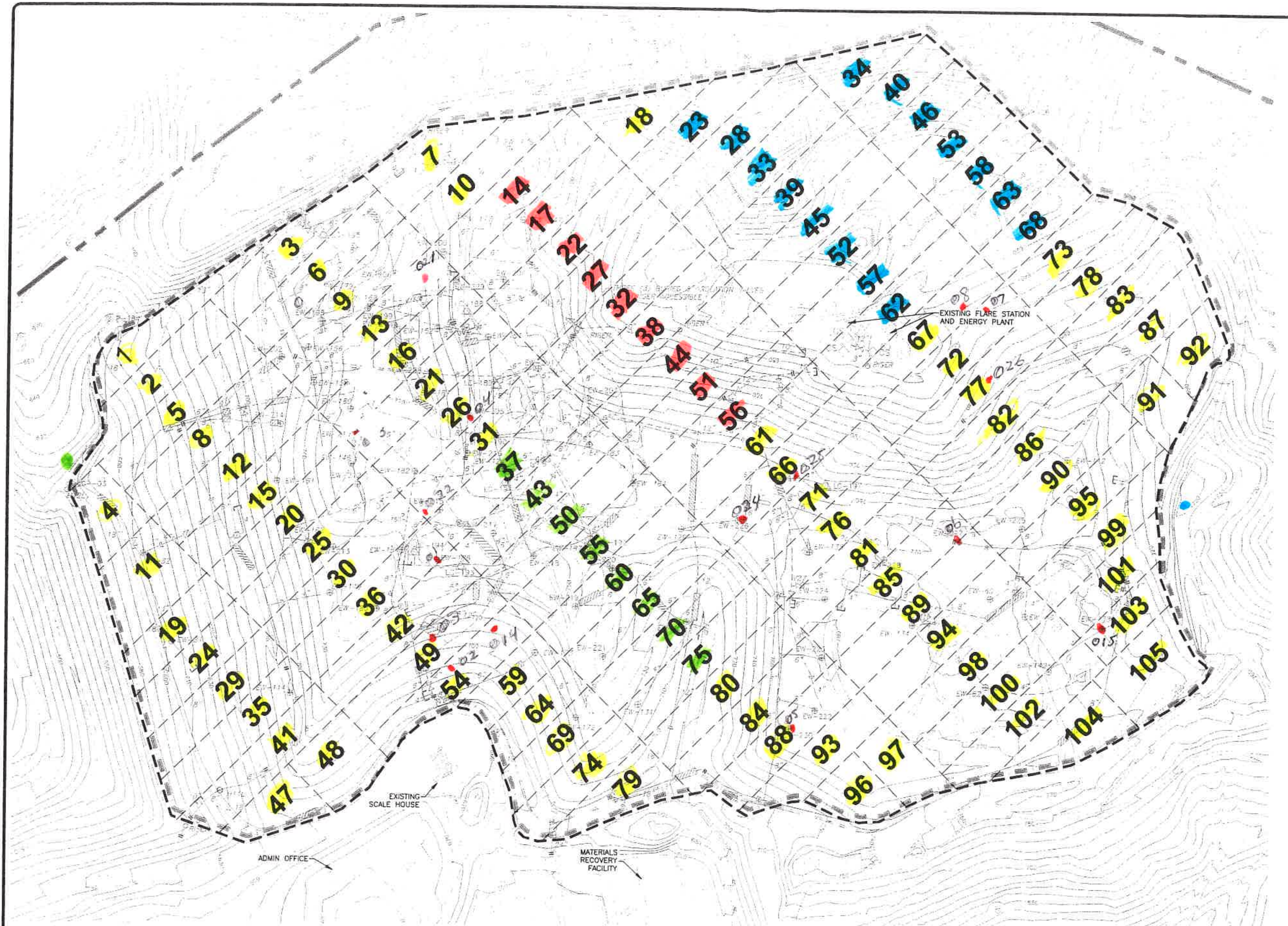
GUADALUPE RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA

AS-BUILT SEM GRID MAP

SHEET NO.
1
PROJECT NO.

1" 1/2" 0" 1"

File: X:\PROJECTS\GUADALUPE\xREF\DUGUAXGS_2017 SEM GRID MAP.dwg Layout: SHT 1 User: RUSSELL.WILLIAMS Feb 04, 2019 – 1:24pm



LEGEND

- PROPERTY BOUNDARY
- EXISTING 10' CONTOUR
- EXISTING ABOVEGROUND PIPING
- EXISTING BELOWGROUND PIPING
- EXISTING HORIZONTAL COLLECTOR
- EXISTING LFG EXTRACTION WELL
- EXISTING REMOTE WELLHEAD
- EXISTING PROBE
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING LOCAL CONTROL WELL
- EXISTING CONTROL VALVE
- EXISTING BLIND FLANGE
- EXISTING FLANGE CONNECTION
- EXISTING REDUCER FITTING
- EXISTING ROAD CROSSING
- EXISTING CONDENSATE SUMP
- EXISTING RISER
- EXISTING CAP ON EXISTING PIPE

N

0 125 250
SCALE IN FEET

NOTES:

1. TOPOGRAPHIC CONTOURS PREPARED USING PHOTOGRAMMETRIC METHODS BY MILLER CREEK AERIAL MAPPING OF BURIEN, WA. DATE OF PHOTOGRAPHY: MARCH 9, 2018. DATUM: HORIZONTAL – NAD 83, VERTICAL – NAD 88.
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3. 2018 GCCS IMPROVEMENTS AS-BUILT PIPING PER SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: DECEMBER 11, 2018.

Instantaneous 6-4-20

- 🟨 Grids monitored
- 🟩 Active cracks
- 🟥 Step slopes
- 🟦 No waste in place
- ● 500+ ppm
- ● Downwind
- ● Upwind

CONCEPTUAL - NOT FOR CONSTRUCTION

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 2/4/2019
DRAWN BY RAW
DESIGNED BY AMN
CHECKED BY PJS
APPROVED BY PJS

cornerstone
A TETRA TECH COMPANY

GUADALUPE RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA

AS-BUILT SEM GRID MAP

SHEET NO. 1
PROJECT NO.

Attachment B

Integrated Surface Emission Monitoring Event Records

Table B.1
Integrated Landfill Surface Monitoring
Exceedances and Monitoring Log

2020 QUARTER: 2

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: NA

LANDFILL NAME: **Guadalupe Recycling & Disposal Facility**

Initial Monitoring Event			**1st Re-mon Event - 10 Days**			**Comments**
Exceedance Grid ID No.	Monitoring Date	Field Reading	Monitoring Date	No Exced. <25 ppm	No Exced. >25 ppm	
None						

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: Leigh Wade
Aaron McBride
Nick Banks
Omar Peralta

Cal. Gas Exp. Date: 9-21-20

Date: 6-3-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 92 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.6

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
1	LW	1320	1345	6.31	1	2	2	
2	AM	1320	1345	5.94	1	2	2	
3	NB	1320	1345	5.87	1	2	2	
4	OP	1320	1345	6.12	1	2	2	
5	LW	1345	1410	6.35	1	2	2	
6	AM	1345	1410	7.21	1	2	2	
7	NB	1345	1410	6.18	1	2	2	
8	OP	1345	1410	6.57	1	2	2	
9	LW	1410	1435	5.81	1	2	2	
10	AM	1410	1435	7.13	1	2	2	
11	NB	1410	1435	5.07	1	2	2	
12	OP	1410	1435	6.49	1	2	2	
13	LW	1435	1500	5.86	1	2	3	
18	AM	1435	1500	4.14	1	2	3	
15	NB	1435	1500	7.38	1	2	3	
16	OP	1435	1500	6.14	1	2	3	
19	LW	1500	1525	4.21	1	2	7	
20	AM	1500	1525	6.57	1	2	7	
21	NB	1500	1525	4.98	1	2	7	
24	OP	1500	1525	8.21	1	2	7	
25	LW	1525	1550	7.13	1	2	7	
26	AM	1525	1550	6.54	1	2	7	
29	NB	1525	1550	9.52	1	2	7	
30	OP	1525	1550	7.28	1	2	7	
31	LW	1550	1615	10.70	1	2	7	
35	AM	1550	1615	5.07	1	2	7	
36	NB	1550	1615	8.57	1	2	7	
41	OP	1550	1615	4.60	1	2	7	

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 1

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEIGH WADE ______ ______

Cal. Gas Exp. Date: ______

Date: 6-3-20 Instrument Used: ______ Grid Spacing: ______

Temperature: ______ Precip: ______ Upwind BG: ______ Downwind BG: ______

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
37								active-fresh
43								
50								
55								
60								
65								
70								
75								↓
14								steep slope
17								
22								
27								
32								
38								
44								
51								
56								↓
23								no waste in place
28								
33								
34								
39								
40								
45								
46								
52								
53								
57								
58								
62								↓

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 2

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEis Lwroc ____ ____

____ ____ ____

____ ____ Cal. Gas Exp. Date: ____

Date: 6-3-20 Instrument Used: ____ Grid Spacing: ____

Temperature: ____ Precip: ____ Upwind BG: ____ Downwind BG: ____

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
63								↓
68								

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 2

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: Leigh Wade; Oscar Peralta
Aaron McBride
Nick Banks

Cal. Gas Exp. Date: 9-21-20

Date: 6-4-20 Instrument Used: TVA 1000 Grid Spacing: 25'

Temperature: 86 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.6

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
42	LW	1100	1125	9.71	1	2	10	
47	AM	1100	1125	5.48	1	2	10	
48	NB	1100	1125	5.16	1	2	10	
49	OD	1100	1125	11.75	1	2	10	
54	LW	1125	1150	13.98	1	2	10	
59	AM	1125	1150	9.41	1	2	10	
64	NB	1125	1150	7.23	1	2	10	
69	OP	1125	1150	14.57	1	2	10	
74	LW	1150	1215	11.03	1	2	9	
79	AM	1150	1215	9.60	1	2	9	
80	NB	1150	1215	10.51	1	2	9	
84	OP	1150	1215	7.44	1	2	9	
88	LW	1215	1240	5.86	1	2	14	
93	AM	1215	1240	4.38	1	2	14	
96	NB	1215	1240	5.11	1	2	14	
97	OP	1215	1240	4.75	1	2	14	
104	LW	1240	1305	3.97	1	2	9	
105	AM	1240	1305	4.15	1	2	9	
102	NB	1240	1305	4.69	1	2	9	
100	OP	1240	1305	5.36	1	2	9	
98	LW	1305	1330	6.87	1	2	10	
94	AM	1305	1330	5.24	1	2	10	
89	NB	1305	1330	6.79	1	2	10	
85	OP	1305	1330	5.27	1	2	10	
81	LW	1330	1355	4.38	1	2	12	
76	AM	1330	1355	10.70	1	2	12	
71	NB	1330	1355	8.54	1	2	12	
66	OP	1330	1355	12.96	1	2	12	
61	LW	1355	1420	9.20	1	2	12	
103	AM	1355	1420	5.15	1	2	12	

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 2

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: Luis Wade, Oscar Perella, Aaron McBride, Nick Banks

Cal. Gas Exp. Date: 9-21-20

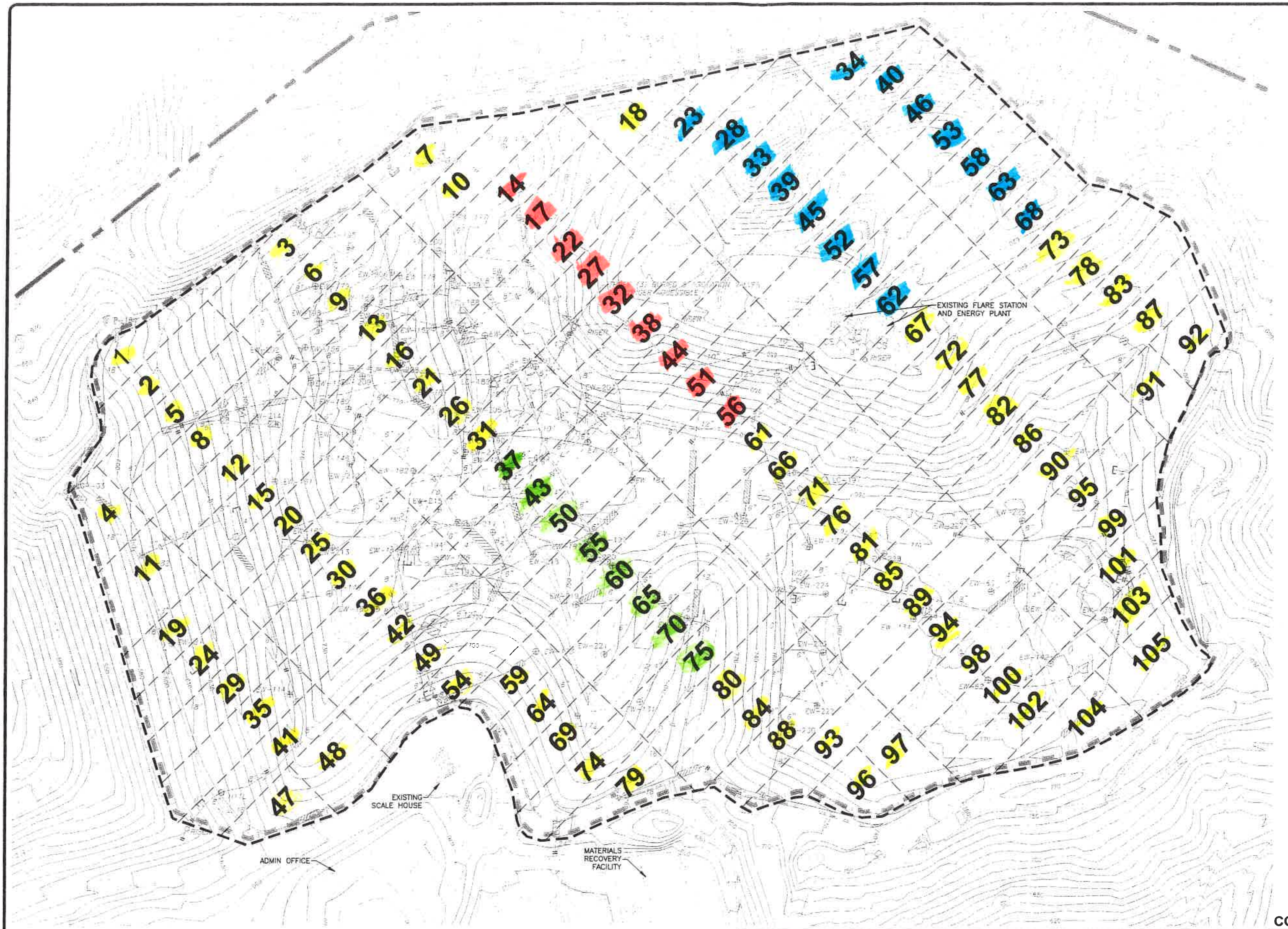
Date: 6-4-20 Instrument Used: TVA 1000 Grid Spacing: 25'

Temperature: 88 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.6

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
101	NB	1355	1420	4.60	1	2	12	
99	OP	1355	1420	5.14	1	2	12	
95	LW	1420	1445	4.28	1	2	10	
91	AM	1420	1445	5.32	1	2	10	
92	NB	1420	1445	4.89	1	2	10	
90	OP	1420	1445	5.45	1	2	10	
86	LW	1445	1510	6.82	1	2	10	
87	AM	1445	1510	6.56	1	2	10	
82	NB	1445	1510	7.17	1	2	10	
83	OP	1445	1510	8.25	1	2	10	
77	LW	1510	1535	7.90	1	2	9	
78	AM	1510	1535	9.14	1	2	9	
72	NB	1510	1535	7.39	1	2	9	
73	OP	1510	1535	6.88	1	2	9	
67	LW	1535	1600	8.24	1	2	9	

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 2



LEGEND

- PROPERTY BOUNDARY
- EXISTING 10' CONTOUR
- EXISTING ABOVEGROUND PIPING
- EXISTING BELOWGROUND PIPING
- EXISTING HORIZONTAL COLLECTOR
- EXISTING LFG EXTRACTION WELL
- EXISTING REMOTE WELLHEAD
- EXISTING PROBE
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING LOCAL CONTROL WELL
- EXISTING CONTROL VALVE
- EXISTING BLIND FLANGE
- EXISTING FLANGE CONNECTION
- EXISTING REDUCER FITTING
- EXISTING ROAD CROSSING
- EXISTING CONDENSATE SUMP
- EXISTING RISER
- EXISTING CAP ON EXISTING PIPE

0 125 250
SCALE IN FEET

NOTES:

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3. 2018 GCCS IMPROVEMENTS AS–BUILT PIPING PER SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: DECEMBER 11, 2018.

INTEGRATED 6-3-20
6-4-20

🟨 GRIDS MONITORED
🟩 ACTIVE TRASH
🟦 NO WASTE IN PLACE
🟥 STEEP SLOPES

CONCEPTUAL - NOT FOR CONSTRUCTION

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 2/4/2019
DRAWN BY RAW
DESIGNED BY AMN
CHECKED BY PJS
APPROVED BY PJS

cornerstone
A TETRA TECH COMPANY

GUADALUPE RECYCLING AND DISPOSAL FACILITY
SAN JOSE, CALIFORNIA

AS-BUILT SEM GRID MAP

SHEET NO.
1
PROJECT NO.

Attachment C

Component Leak Monitoring Event Records

Table C.1
AB-32 Component Leak Monitoring
Summary of Component Leaks Greater than 500 ppmv

2020 QUARTER: 2

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: NA

LANDFILL NAME: Guadalupe Recycling & Disposal Facility

Location	Initial Monitoring			Corrective Action		10-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
Flare Station A-9	5/21/2020	ND	WM	NA	NA	NA	NA	NA
	6/4/2020	ND	RES	NA	NA	NA	NA	NA
Flare Station A-14	6/4/2020	ND	RES	NA	NA	NA	NA	NA

ND= Non Exceedances

Table C.2
BAAQMD Component Leak Monitoring
Summary of Component Leaks Greater than 1,000 ppmv

2020 QUARTER: 2

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: NA

LANDFILL NAME: Guadalupe Recycling & Disposal Facility

Location	Initial Monitoring			Corrective Action		7-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
Flare Station A-9	5/21/2020	ND	WM	NA	NA	NA	NA	NA
	6/4/2020	ND	RES	NA	NA	NA	NA	NA
Flare Station A-14	6/4/2020	ND	RES	NA	NA	NA	NA	NA

ND= Non Exceedances

Landfill component Leak Check
Guadalupe New Flare

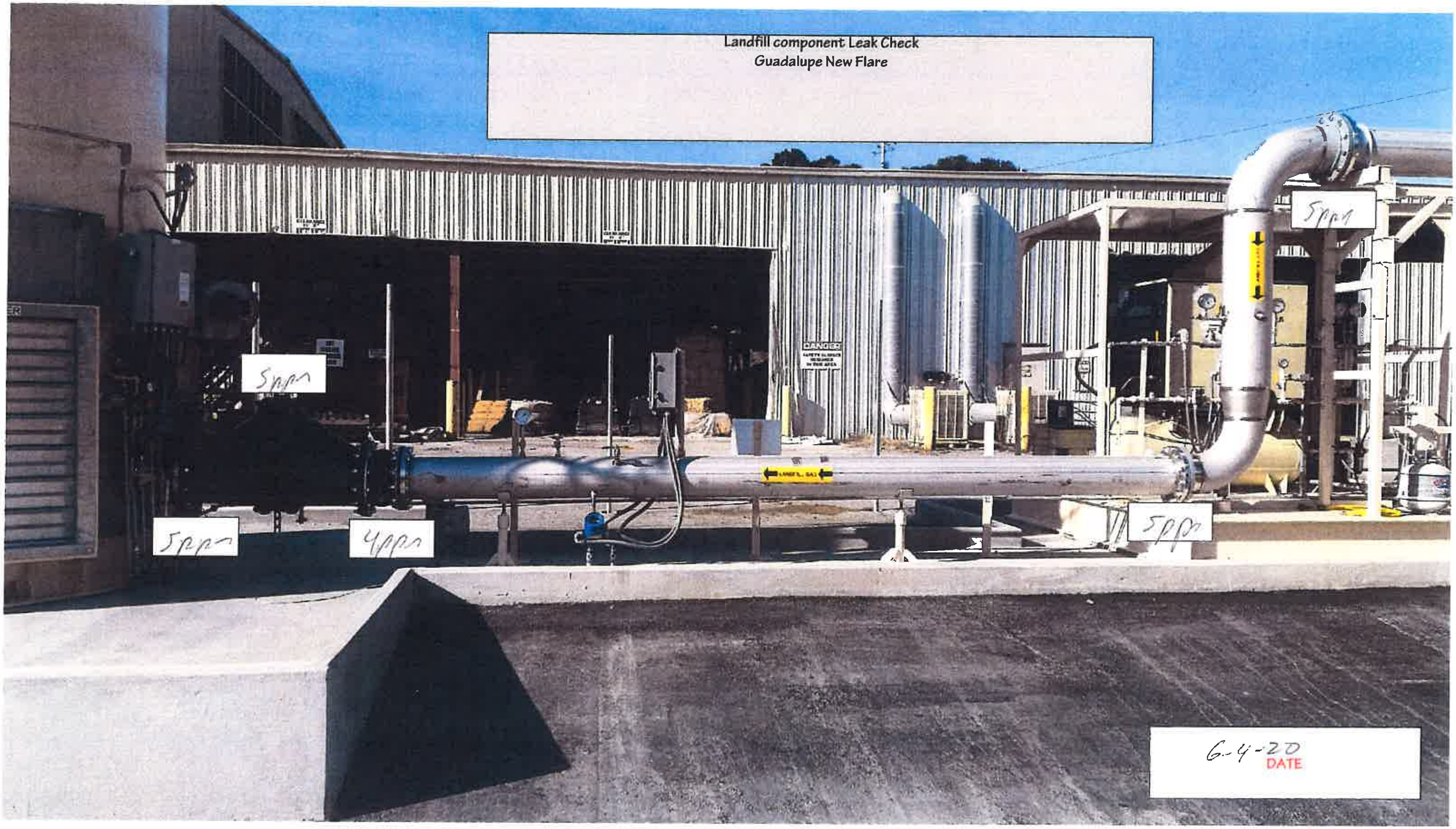
6-4-20 DATE

Landfill component Leak Check
Guadalupe New Flare

4ppm

5ppm

6-4-20 DATE



Landfill component Leak Check
Guadalupe New Flare

5ppm

5ppm

4ppm

5ppm

5ppm

6-4-20
DATE

Landfill component Leak Check
Guadalupe

5ppm

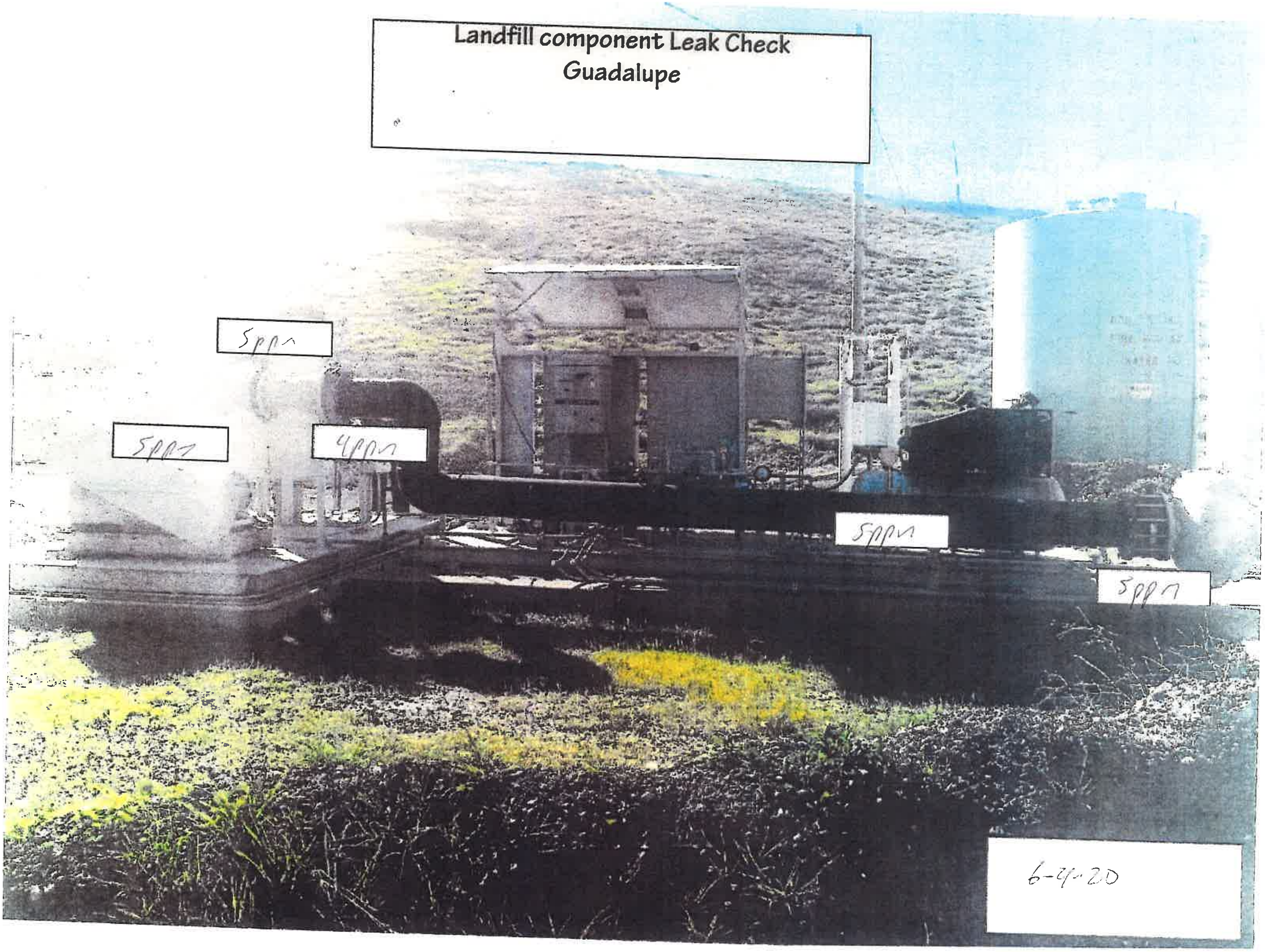
4ppm

4ppm

6-4-20

DATE

Landfill component Leak Check
Guadalupe



6-4-20

Landfill component Leak Check
Guadalupe

4ppm

5ppm

6-4-20
DATE

LANDFILL NAME: GUADALUPE :

QUARTERLY LFG COMPONENT LEAK MONITORING

INSTRUMENT FID
MAKE: Thermo Environr
MODEL: TVA 1000
S/N: 1036246773

DATE OF SAMPLING: 6-4-20
TECHNICIAN: LEIGH WADE

LOCATION OF LEAK	LEAK CONCENTRATION (ppmv)	DATE OF DISCOVERY	TECHNICIAN	ACTION TAKEN TO REPAIR LEAK	DATE OF REPAIR	DATE OF ANY REQUIRED RE-MONITORING	RE-MONITORED CONCENTRATION (ppmv)
NO EXCEEDANCES							

In the event that an exceedance is detected, please intiate corrective action and re-monitor the exceedance location within 7 days of the initial exceedance.

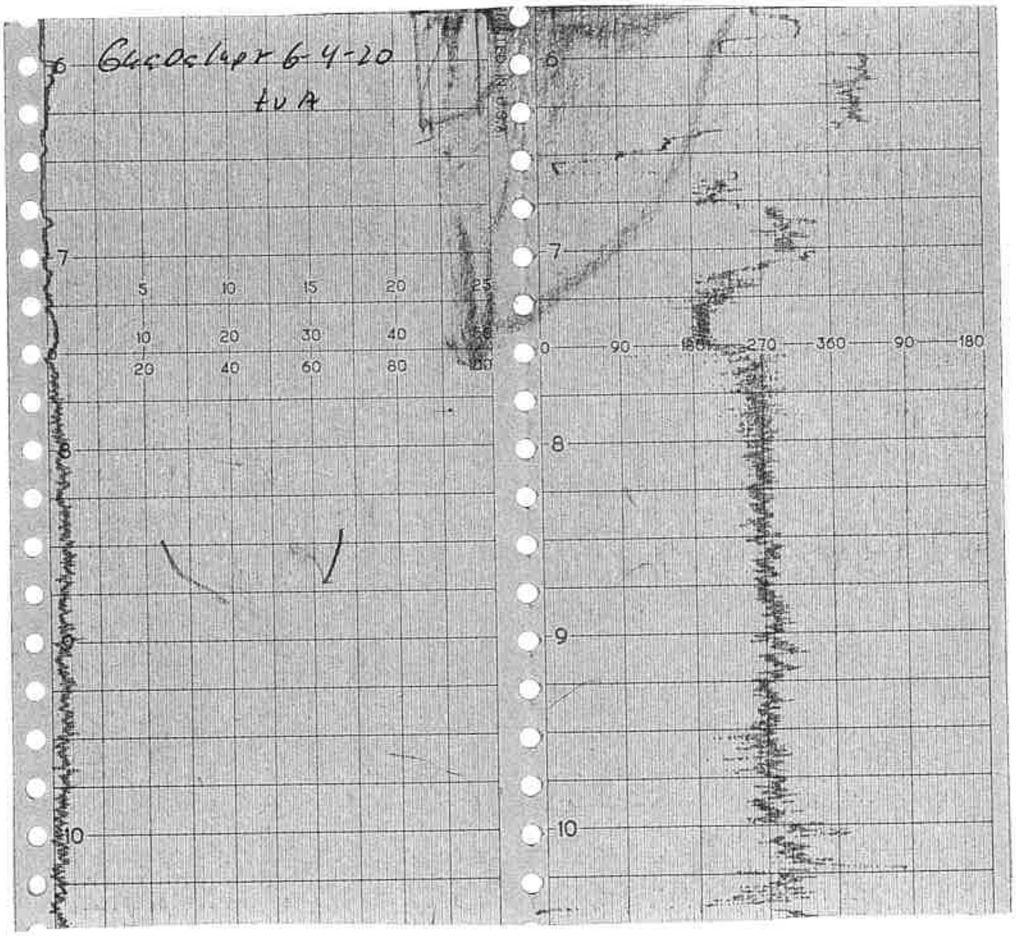
NOTE: Leaks over 500 ppmv methane are exceedances at any component containing landfill gas, pursuant to CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B).

NOTE: Leaks over 1,000 ppmv methane are exceedances at any component containing landfill gas, pursuant to BAAQMD Regulation 8-34-301.2.

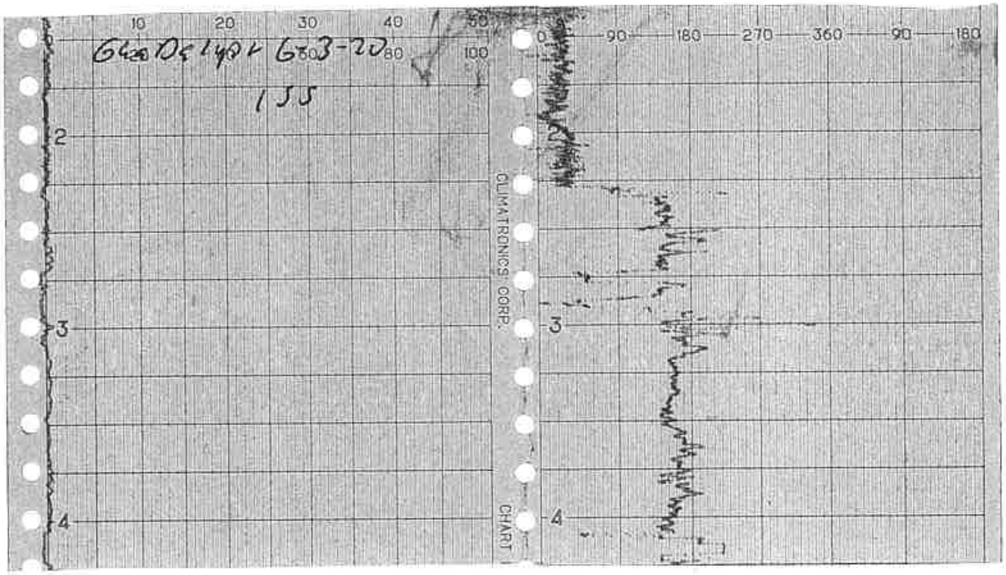
Attachment D

Weather Station Data

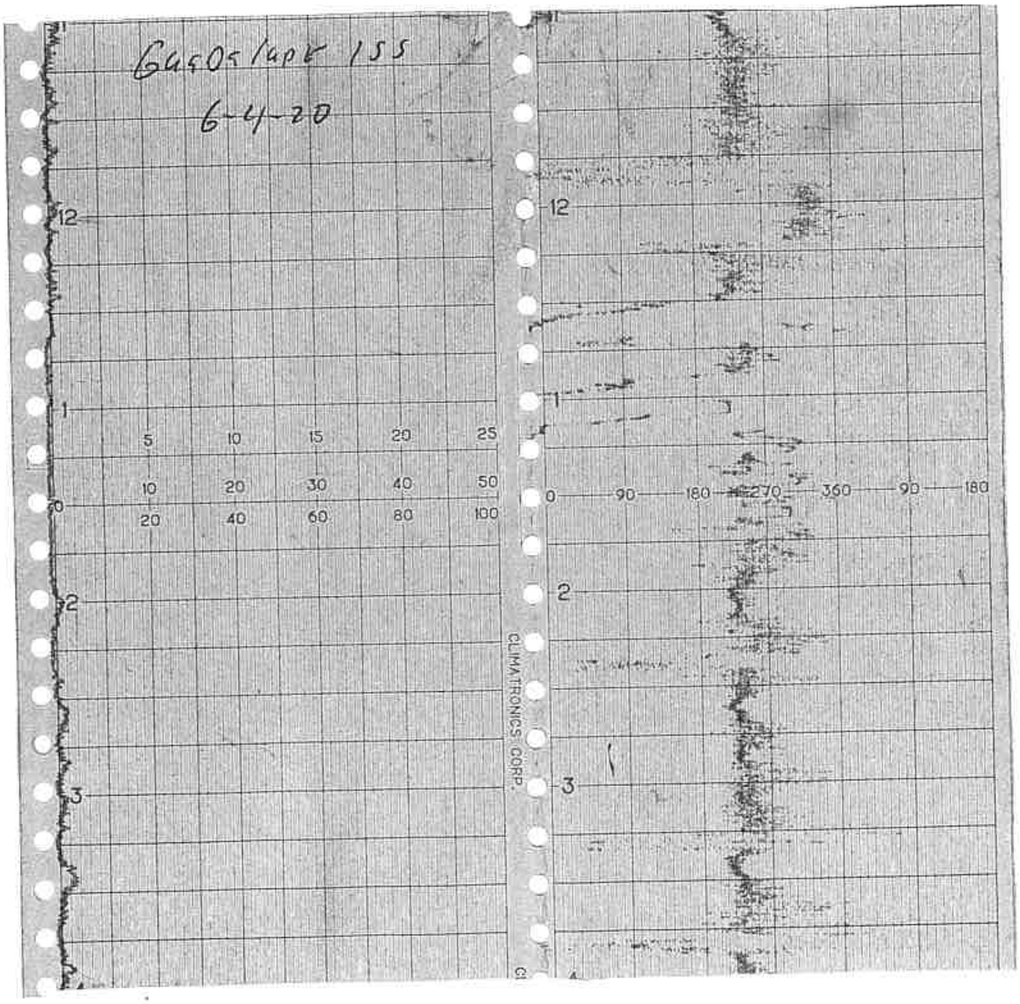
WIND SPEED & DIRECTION CHART ROLL



WIND SPEED & DIRECTION CHART ROLL



WIND SPEED & DIRECTION CHART ROLL



RES
Environmental Inc.

16-POINT WIND DIRECTION INDEX

NO	DIRECTION	DEGREES		
		FROM	CENTER	TO
16	NORTH (N)	348.8	360.0	011.3
1	NORTH-NORTHEAST (NNE)	011.3	022.5	033.8
2	NORTHEAST (NE)	033.8	045.0	056.3
3	EAST-NORTHEAST (ENE)	056.3	067.5	078.8
4	EAST (E)	078.8	090.0	101.3
5	EAST-SOUTHEAST (ESE)	101.3	112.5	123.8
6	SOUTHEAST (SE)	123.8	135.0	146.3
7	SOUTH-SOUTHEAST (SSE)	146.3	157.5	168.8
8	SOUTH (S)	168.8	180.0	191.3
9	SOUTH-SOUTHWEST (SSW)	191.3	202.5	213.8
10	SOUTHWEST (SW)	213.8	225.0	236.3
11	WEST-SOUTHWEST (WSW)	236.3	247.5	258.8
12	WEST (W)	258.8	270.0	281.3
13	WEST-NORTHWEST (WNW)	281.3	292.5	303.8
14	NORTHWEST (NW)	303.8	315.0	326.3
15	NORTH-NORTHWEST (NNW)	326.3	337.5	348.8

Attachment E

Calibration Records

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: GUADALUPE INSTRUMENT MAKE: THERMO

MODEL: TVA1000 EQUIPMENT #: 10 SERIAL #: 1036346773

MONITORING DATE: 6-4-20 TIME: 0540

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: $\frac{(\text{Upwind} + \text{Downwind})}{2}$
2.0 ppm	2.6 ppm	2.3 ppm

Background Value = 2.3 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	504 ppm	454 ppm	6
#2	500 ppm	450 ppm	6
#3	500 ppm	450 ppm	6
	Calculate Response Time $\frac{(1+2+3)}{3}$		6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.25 ppm	504 ppm	4
#2	0.17 ppm	500 ppm	0
#3	0.11 ppm	500 ppm	0
Calculate Precision	$\frac{[\text{STD-B1}] + [\text{STD-B2}] + [\text{STD-B3}]}{3} \text{ X } \frac{1}{500} \text{ X } \frac{100}{1}$		0.26 #DIV/0! Must be less than 10%

Performed By: LEIGH WADE Date/Time: 6-4-20 -0540

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: Guadalupe INSTRUMENT MAKE: LHunro

MODEL: LUA 1000 EQUIPMENT #: 12 SERIAL #: 1036246741

MONITORING DATE: 6-4-20 TIME: 0540

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	**Downwind Background Reading:** (Highest in 30 seconds)	**Background Value:** $\frac{\text{(Upwind + Downwind)}}{2}$
2.0 ppm	2.6 ppm	2.3 ppm

Background Value = 2.3 **ppm**

INSTRUMENT RESPONSE TIME RECORD

Measurement #	**Stabilized Reading Using Calibration Gas**	**90% of the Stabilized Reading**	**Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas**
#1	490 ppm	440 ppm	7
#2	502 ppm	452 ppm	7
#3	500 ppm	450 ppm	7
	Calculate Response Time $\frac{(1+2+3)}{3}$		7 **#DIV/0!** Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	**Meter Reading for Zero Air (A)**	**Meter Reading for Calibration Gas (B)**	**Calculate Precision [STD – (B)]**
#1	0.19 ppm	490 ppm	10
#2	0.12 ppm	502 ppm	2
#3	0.09 ppm	500 ppm	0
Calculate Precision	$\frac{[STD-B1] + [STD-B2] + [STD-B3]}{3} \times \frac{1}{500} \times \frac{100}{1}$		6.80 **#DIV/0!** Must be less than 10%

Performed By: AARON MCBRIDE Date/Time: 6-4-20 ~ 0540

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: Guadalupe INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 13 SERIAL #: 1102746775

MONITORING DATE: 6-4-20 TIME: 0540

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: $\frac{\text{(Upwind + Downwind)}}{2}$
2.0 ppm	2.6 ppm	2.3 ppm

Background Value = 2.3 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	495 ppm	445 ppm	5
#2	503 ppm	453 ppm	5
#3	500 ppm	450 ppm	5
	Calculate Response Time $\frac{(1+2+3)}{3}$		5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.21 ppm	495 ppm	5
#2	0.15 ppm	503 ppm	3
#3	0.11 ppm	500 ppm	0
Calculate Precision	$\frac{[\text{STD-B1}] + [\text{STD-B2}] + [\text{STD-B3}]}{3} \times \frac{1}{500} \times \frac{100}{1}$		0.53 #DIV/0! Must be less than 10%

Performed By: Nick Banks Date/Time: 6-4-20 - 0540

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME: Guadalupe INSTRUMENT MAKE: Thermo

MODEL: TVA1000 EQUIPMENT #: 15 SERIAL #: 1036346772

MONITORING DATE: 6-4-20 TIME: 0540

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm
3. Adjust meter settings to read 500 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: $\frac{(\text{Upwind + Downwind})}{2}$
2.0 ppm	2.6 ppm	2.3 ppm

Background Value = 2.3 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	489 ppm	439 ppm	6
#2	497 ppm	447 ppm	6
#3	500 ppm	450 ppm	6
Calculate Response Time $\frac{(1+2+3)}{3}$			6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.31 ppm	489 ppm	11
#2	0.23 ppm	497 ppm	3
#3	0.15 ppm	500 ppm	0
Calculate Precision	$\frac{[\text{STD-B1}] + [\text{STD-B2}] + [\text{STD-B3}]}{3} \times \frac{1}{500} \times \frac{100}{1}$		0.93 #DIV/0! Must be less than 10%

Performed By: omar peralta Date/Time: 6-4-20 - 0540

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: GasOslopE INSTRUMENT MAKE: tHermo

MODEL: tvA 1000 EQUIPMENT #: 10 SERIAL #: 1036346773

MONITORING DATE: 6-3-20 TIME: 1315

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: **(Highest in 30 seconds)**	**Downwind Background Reading:** **(Highest in 30 seconds)**	**Background Value:** **(Upwind + Downwind) / 2**
2.0 ppm	2.6 ppm	2.3 ppm

Background Value = 2.3 **ppm**

INSTRUMENT RESPONSE TIME RECORD

Measurement #	**Stabilized Reading Using Calibration Gas**	**90% of the Stabilized Reading**	**Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas**
#1	24 ppm	21.6 ppm	5
#2	24 ppm	21.6 ppm	5
#3	25 ppm	22.5 ppm	5
	Calculate Response Time **(1+2+3) / 3**		5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = **25 ppm**

Measurement #	**Meter Reading for Zero Air (A)**	**Meter Reading for Calibration Gas (B)**	**Calculate Precision [STD – (B)]**
#1	0.21 ppm	24 ppm	1
#2	0.16 ppm	24 ppm	1
#3	0.08 ppm	25 ppm	0
Calculate Precision	**[STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1**		2.6 #DIV/0! Must be less than 10%

Performed By LEIgh WADE Date/Time: 6-3-20 -1315

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: GasOglupe INSTRUMENT MAKE: Thermo

MODEL: TVA1000 EQUIPMENT #: 12 SERIAL #: 1036246741

MONITORING DATE: 6-3-20 TIME: 1315

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	**Downwind Background Reading:** (Highest in 30 seconds)	**Background Value:** $\frac{\text{(Upwind + Downwind)}}{2}$
2.0 ppm	2.6 ppm	2.3 ppm

Background Value = 2.3 **ppm**

INSTRUMENT RESPONSE TIME RECORD

Measurement #	**Stabilized Reading Using Calibration Gas**	**90% of the Stabilized Reading**	**Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas**
#1	24 ppm	21.6 ppm	5
#2	25 ppm	22.5 ppm	5
#3	25 ppm	22.5 ppm	5
	Calculate Response Time $\frac{(1+2+3)}{3}$		5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	**Meter Reading for Zero Air (A)**	**Meter Reading for Calibration Gas (B)**	**Calculate Precision [STD – (B)]**
#1	0.19 ppm	24 ppm	1
#2	0.11 ppm	25 ppm	0
#3	0.08 ppm	25 ppm	0
Calculate Precision	$\frac{[STD-B1] + [STD-B2] + [STD-B3]}{3} \times \frac{1}{25} \times \frac{100}{1}$		.1.3 #DIV/0! Must be less than 10%

Performed By: AARON MCBRIDE Date/Time: 6-3-20 - 1315

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Guadalupe INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 13 SERIAL #: 1102746775

MONITORING DATE: 6-3-20 TIME: 1315

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	**Downwind Background Reading:** (Highest in 30 seconds)	**Background Value:** $\frac{\text{(Upwind + Downwind)}}{2}$
2.0 ppm	2.6 ppm	2.3 ppm

Background Value = 2.3 **ppm**

INSTRUMENT RESPONSE TIME RECORD

Measurement #	**Stabilized Reading Using Calibration Gas**	**90% of the Stabilized Reading**	**Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas**
#1	23 ppm	20.7 ppm	7
#2	24 ppm	21.6 ppm	7
#3	25 ppm	22.5 ppm	7
	Calculate Response Time $\frac{(1+2+3)}{3}$		7 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	**Meter Reading for Zero Air (A)**	**Meter Reading for Calibration Gas (B)**	**Calculate Precision [STD – (B)]**
#1	0.31 ppm	23 ppm	2
#2	0.20 ppm	24 ppm	1
#3	0.15 ppm	25 ppm	0
Calculate Precision	$\frac{\text{[STD-B1] + [STD-B2] + [STD-B3]}}{3} \times \frac{1}{25} \times \frac{100}{1}$		4.0 #DIV/0! Must be less than 10%

Performed By Nick Banks Date/Time: 6-3-20 - 1315

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: GasDslupr INSTRUMENT MAKE: tHERMO

MODEL: TVA 1000 EQUIPMENT #: 15 SERIAL #: 1036346722

MONITORING DATE: 6-3-20 TIME: 1315

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	**Downwind Background Reading:** (Highest in 30 seconds)	**Background Value:** $\frac{\text{(Upwind + Downwind)}}{2}$
2.0 ppm	2.6 ppm	2.3 ppm

Background Value = 2.3 **ppm**

INSTRUMENT RESPONSE TIME RECORD

Measurement #	**Stabilized Reading Using Calibration Gas**	**90% of the Stabilized Reading**	**Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas**
#1	23 ppm	20.7 ppm	6
#2	25 ppm	22.5 ppm	6
#3	25 ppm	22.5 ppm	6
Calculate Response Time $\frac{(1+2+3)}{3}$			6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	**Meter Reading for Zero Air (A)**	**Meter Reading for Calibration Gas (B)**	**Calculate Precision [STD – (B)]**
#1	0.30 ppm	23 ppm	2
#2	0.18 ppm	25 ppm	0
#3	0.15 ppm	25 ppm	0
Calculate Precision	$\frac{\text{[STD-B1] + [STD-B2] + [STD-B3]}}{3} \times \frac{1}{25} \times \frac{100}{1}$		2.6 #DIV/0! Must be less than 10%

Performed By Omcrponscka Date/Time: 6-3-20 - 1315

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Guadalupe INSTRUMENT MAKE: tHERmo

MODEL: tVA1000 EQUIPMENT #: 10 SERIAL #: 1036346773

MONITORING DATE: 6-4-20 TIME: 1050

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	**Downwind Background Reading:** (Highest in 30 seconds)	**Background Value:** (Upwind + Downwind) / 2
2.0 ppm	2.6 ppm	2.3 ppm

Background Value = 2.3 **ppm**

INSTRUMENT RESPONSE TIME RECORD

Measurement #	**Stabilized Reading Using Calibration Gas**	**90% of the Stabilized Reading**	**Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas**
#1	24 ppm	21.6 ppm	6
#2	24 ppm	21.6 ppm	6
#3	25 ppm	22.5 ppm	6
	Calculate Response Time $\frac{(1+2+3)}{3}$		6 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = <u>25</u> **ppm**

Measurement #	**Meter Reading for Zero Air (A)**	**Meter Reading for Calibration Gas (B)**	**Calculate Precision [STD – (B)]**
#1	0.19 ppm	24 ppm	1
#2	0.10 ppm	24 ppm	1
#3	0.08 ppm	25 ppm	0
Calculate Precision	$\frac{[STD-B1] + [STD-B2] + [STD-B3]}{3} \times \frac{1}{25} \times \frac{100}{1}$		2.6 #DIV/0! Must be less than 10%

Performed By Leigh Wade Date/Time: 6-4-20 1050

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Guadalupe INSTRUMENT MAKE: Thermo
MODEL: TVA 1000 EQUIPMENT #: 12 SERIAL #: 1036246741
MONITORING DATE: 6-4-20 TIME: 1050

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	**Downwind Background Reading:** (Highest in 30 seconds)	**Background Value:** $\frac{\text{(Upwind + Downwind)}}{2}$
2.0 ppm	2.6 ppm	2.3 ppm

Background Value = 2.3 **ppm**

INSTRUMENT RESPONSE TIME RECORD

Measurement #	**Stabilized Reading Using Calibration Gas**	**90% of the Stabilized Reading**	**Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas**
#1	23 ppm	20.7 ppm	5
#2	24 ppm	21.6 ppm	5
#3	25 ppm	22.5 ppm	5
Calculate Response Time $\frac{(1+2+3)}{3}$			5 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 **ppm**

Measurement #	**Meter Reading for Zero Air (A)**	**Meter Reading for Calibration Gas (B)**	**Calculate Precision [STD – (B)]**
#1	0.27 ppm	23 ppm	2
#2	0.14 ppm	24 ppm	1
#3	0.07 ppm	25 ppm	0
Calculate Precision $\frac{\text{[STD-B1] + [STD-B2] + [STD-B3]}}{3} \times \frac{1}{25} \times \frac{100}{1}$			4.0 #DIV/0! Must be less than 10%

Performed By AARON McBRIDE Date/Time: 6-4-20 - 1050

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Guadalupe INSTRUMENT MAKE: Thermo

MODEL: TVA1000 EQUIPMENT #: 13 SERIAL #: 1102746775

MONITORING DATE: 6-4-20 TIME: 1050

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	**Downwind Background Reading:** (Highest in 30 seconds)	**Background Value:** $\frac{\text{(Upwind + Downwind)}}{2}$
2.0 ppm	2.6 ppm	2.3 ppm

Background Value = 2.3 **ppm**

INSTRUMENT RESPONSE TIME RECORD

Measurement #	**Stabilized Reading Using Calibration Gas**	**90% of the Stabilized Reading**	**Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas**
#1	23 ppm	20.7 ppm	7
#2	25 ppm	22.5 ppm	7
#3	25 ppm	22.5 ppm	7
	Calculate Response Time $\frac{(1+2+3)}{3}$		7 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = **25 ppm**

Measurement #	**Meter Reading for Zero Air (A)**	**Meter Reading for Calibration Gas (B)**	**Calculate Precision [STD – (B)]**
#1	0.16 ppm	23 ppm	2
#2	0.11 ppm	25 ppm	0
#3	0.09 ppm	25 ppm	0
Calculate Precision	$\frac{[STD-B1] + [STD-B2] + [STD-B3]}{3} \times \frac{1}{25} \times \frac{100}{1}$		2.6 #DIV/0! Must be less than 10%

Performed By Nick Banks Date/Time: 6-4-20 - 1050

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Guadalupe INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 15 SERIAL #: 1036346772

MONITORING DATE: 6-4-20 TIME: 1050

Calibration Procedure:

1. Allow instrument to zero itself while introducing air.
2. Introduce calibration gas into the probe. Stabilized reading = 25 ppm
3. Adjust meter settings to read 25 ppm.

Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwind) / 2
2.0 ppm	2.6 ppm	2.3 ppm

Background Value = 2.3 ppm

INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilized Reading	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas
#1	24 ppm	21.6 ppm	7
#2	25 ppm	22.5 ppm	7
#3	25 ppm	22.5 ppm	7
Calculate Response Time (1+2+3) / 3			7 #DIV/0! Must be less than 30 seconds

CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zero Air (A)	Meter Reading for Calibration Gas (B)	Calculate Precision [STD – (B)]
#1	0.24 ppm	24 ppm	1
#2	0.16 ppm	25 ppm	0
#3	0.11 ppm	25 ppm	0
Calculate Precision	$\frac{[STD-B1] + [STD-B2] + [STD-B3]}{3} \times \frac{1}{25} \times \frac{100}{1}$		1.3 #DIV/0! Must be less than 10%

Performed By _______________ Date/Time: 6-4-20 - 1050

RES
Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site:

Purpose:

Operator:

Date: 6-7-20 Time: 0800

Model # TVA 1000 B

Serial # #10 1036346773

INSTRUMENT INTEGRITY CHECKLIST

Battery test [✓ Pass] / Fail

Reading following ignition 2.3 ppm

Leak test [✓ Pass] / Fail / NA

Clean system check (check valve chatter) [✓ Pass] / Fail / NA

H_2 supply pressure gauge (acceptable range 9.5 - 12) [✓ Pass] / Fail / NA

Date of last factory calibration 4-3-20

Factory calibration record w/instrument within 3 months [✓ Pass] / Fail

INSTRUMENT CALIBRATION

CALIBRATION CHECK

Calibration Gas (ppm)	Actual (ppm)	% Accuracy
500	500	100%

RESPONSE TIME

Calibration Gas, ppm 500

90% of Calibration Gas, ppm 450

Time required to attain 90% of Cal Gas ppm

1. 6
2. 5
3. 7

Average

Equal to or less than 30 seconds? [✓ Y] N

Instrument calibrated to CH4 gas.

Comments:

RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT CALIBRATION LOG

Site:

Purpose:

Operator:

Date: 6-7-20

Time: 0830

Model # TVA 1000 B

Serial # #12 1036246741

INSTRUMENT INTEGRITY CHECKLIST

Battery test	[✓ Pass] / Fail
Reading following ignition	2.2 ppm
Leak test	[✓ Pass] / Fail / NA
Clean system check (check valve chatter)	[✓ Pass] / Fail / NA
H_2 supply pressure gauge (acceptable range 9.5 - 12)	[✓ Pass] / Fail / NA
Date of last factory calibration	4-3-20
Factory calibration record w/instrument within 3 months	[✓ Pass] / Fail

INSTRUMENT CALIBRATION

CALIBRATION CHECK

Calibration Gas (ppm)	Actual (ppm)	% Accuracy
500	500	100%

RESPONSE TIME

Calibration Gas, ppm 500

90% of Calibration Gas, ppm 450

Time required to attain 90% of Cal Gas ppm

1. 7
2. 7
3. 6

Average

Equal to or less than 30 seconds? [✓ Y] N

Instrument calibrated to CH4 gas.

Comments:

RES
Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site:

Purpose:

Operator:

Date: 6-7-20 Time: 0845

Model # TVA 1000 B

Serial #131102746775

INSTRUMENT INTEGRITY CHECKLIST

Battery test [✓ Pass] / Fail

Reading following ignition 1.9 ppm

Leak test [✓ Pass] / Fail / NA

Clean system check (check valve chatter) [✓ Pass] / Fail / NA

H_2 supply pressure gauge (acceptable range 9.5 - 12) [✓ Pass] / Fail / NA

Date of last factory calibration 4-3-20

Factory calibration record w/instrument within 3 months [✓ Pass] / Fail

INSTRUMENT CALIBRATION

CALIBRATION CHECK

Calibration Gas (ppm)	Actual (ppm)	% Accuracy
500	500	100%

RESPONSE TIME

Calibration Gas, ppm 500

90% of Calibration Gas, ppm 450

Time required to attain 90% of Cal Gas ppm

1. 6
2. 6
3. 8

Average

Equal to or less than 30 seconds? [✓ Y] N

Instrument calibrated to CH_4 gas.

Comments:

RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site:

Purpose:

Operator:

Date: 6-7-20 Time: 0915

Model # TVA 1000B

Serial # #15/0363 46772

INSTRUMENT INTEGRITY CHECKLIST

Battery test [✓ Pass] / Fail

Reading following ignition 1.8 ppm

Leak test [✓ Pass] / Fail / NA

Clean system check (check valve chatter) [✓ Pass] / Fail / NA

H_2 supply pressure gauge (acceptable range 9.5 - 12) [✓ Pass] / Fail / NA

Date of last factory calibration 4-3-20

Factory calibration record w/instrument within 3 months [✓ Pass] / Fail

INSTRUMENT CALIBRATION

CALIBRATION CHECK

Calibration Gas (ppm)	Actual (ppm)	% Accuracy
500	500	100%

RESPONSE TIME

Calibration Gas, ppm 500

90% of Calibration Gas, ppm 450

Time required to attain 90% of Cal Gas ppm

1. 6
2. 6
3. 7

Average

Equal to or less than 30 seconds? [✓ Y] N

Instrument calibrated to CH4 gas.

Comments:

RES
Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #10

SERIAL NUMBER: 1036346773

TECHNICIAN:

DATE: 4-3-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID

METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	500	+/- 125
10000	10000	10,000	+/- 2500
< 1	ZERO GAS	0.59	< 3

PID

ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50		+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #12

SERIAL NUMBER: 1036246741

TECHNICIAN:

DATE: 4-3-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID			
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	500	+/- 125
10000	10000	10,000	+/- 2500
< 1	ZERO GAS	0.76	< 3
PID			
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50		+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

RES
Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES UNIT #13

SERIAL NUMBER: 1102746775

TECHNICIAN:

DATE: 4-3-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID			
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	99	+/- 25
500	500	501	+/- 125
10000	10000	10,000	+/- 2500
< 1	ZERO GAS	0.41	< 3

PID			
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50		+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

RES
Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES UNIT #15

SERIAL NUMBER: 1036346772

TECHNICIAN: M M DATE: 4-3-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID

METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	500	+/- 125
10000	10000	10,000	+/- 2500
< 1	ZERO GAS	0.69	< 3

PID

ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50		+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

All measurement standards are calibrated at scheduled intervals by the National Institute of Standards and Technology (NIST), or against certified standards, which are traceable to the National Institute of Standards and Technology.

INTERMOUNTAIN SPECIALTY GASES

520 N. Kings Road • Nampa • Idaho • 83687
800-552-5003 • www.isgases.com

CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy
Air - Zero		
THC	< 2 PPM	
Oxygen	20.9%	± 2%
Nitrogen	Balance	

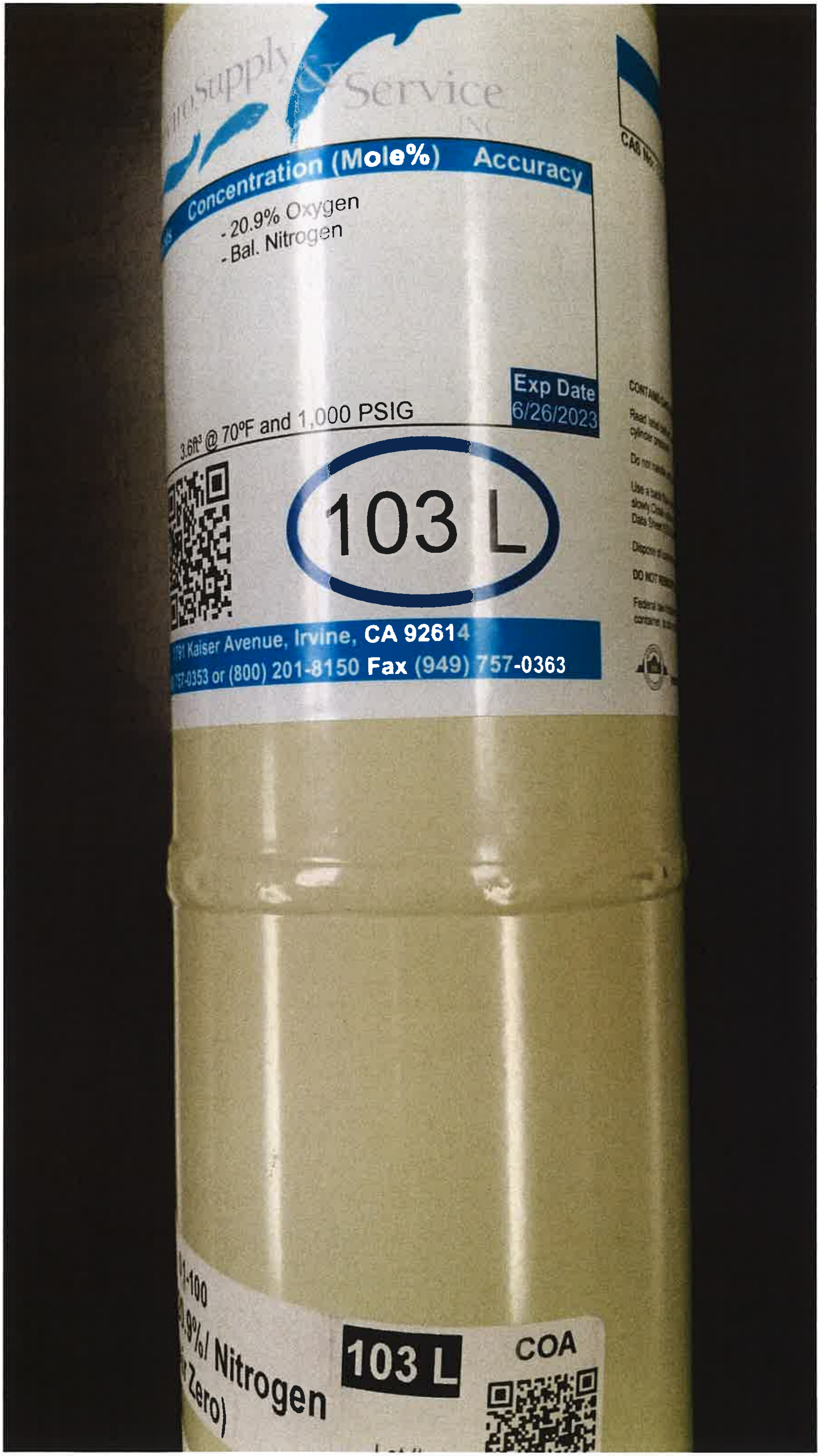
Lot # 19-6779

Mfg. Date:	4/3/2019
Parent Cylinder ID Number:	001739, 02268

Method of Preparation:
Gravimetric/Pressure Transfilled

Method of Analysis:
This mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Quality Assurance Manager
800-552-5003
Certificate Date: 4/3/2019


Supply & Service INC
Concentration (Mole%)
Accuracy
- 20.9% Oxygen
- Bal. Nitrogen
Exp Date
6/26/2023
3.6ft³ @ 70ºF and 1,000 PSIG
103 L
Kaiser Avenue, Irvine, CA 92614
757-0353 or (800) 201-8150 Fax (949) 757-0363
CAS No.
1-100
9%/ Nitrogen
Zero)
103 L
COA

INTERMOUNTAIN SPECIALTY GASES
520 N. Kings Road • Nampa • Idaho • 83687
800-552-5003 • www.isgases.com

CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy
Methane	25 ppm	± 5%
Air	Balance	

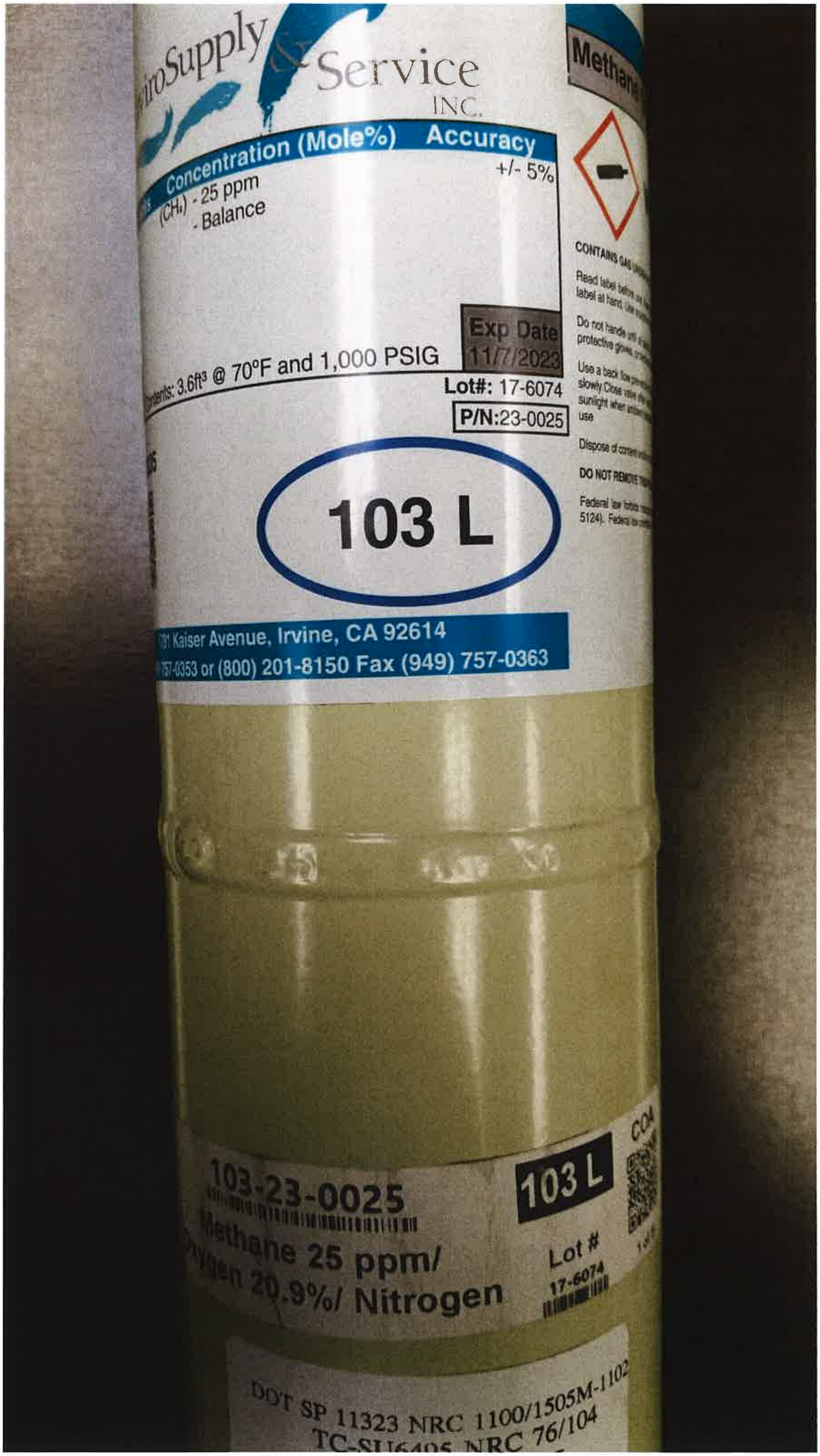
Lot # 17-6074

Mfg. Date: 10/16/2017
Parent Cylinder ID Number: 17161

Method of Preparation:
Gravimetric/Pressure Transfilled

Method of Analysis:
The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Quality Assurance Manager
800-552-5003
Certificate Date: 10/16/2017


iroSupply & Service
INC.
Concentration (Mole%)
Accuracy
(CH₄) - 25 ppm
- Balance
+/- 5%
Exp Date
11/7/2023
ntents: 3.6ft³ @ 70°F and 1,000 PSIG
Lot#: 17-6074
P/N:23-0025
103 L
Kaiser Avenue, Irvine, CA 92614
757-0353 or (800) 201-8150 Fax (949) 757-0363
Methan
CONTAINS GAS
DO NOT REMOVE
103-23-0025
ethane 25 ppm/
ygen 20.9%/ Nitrogen
103 L
Lot #
17-6074
COA
DOT SP 11323 NRC 1100/1505M-1102
TC-SU6495 NRC 76/104

INTERMOUNTAIN SPECIALTY GASES
520 N. Kings Road ● Nampa ● Idaho ● 83687
800-552-5003 ● www.isgases.com

CERTIFICATE OF ANALYSIS

Composition	Certification	Analytical Accuracy
Methane	500 ppm	± 2%
Air	Balance	

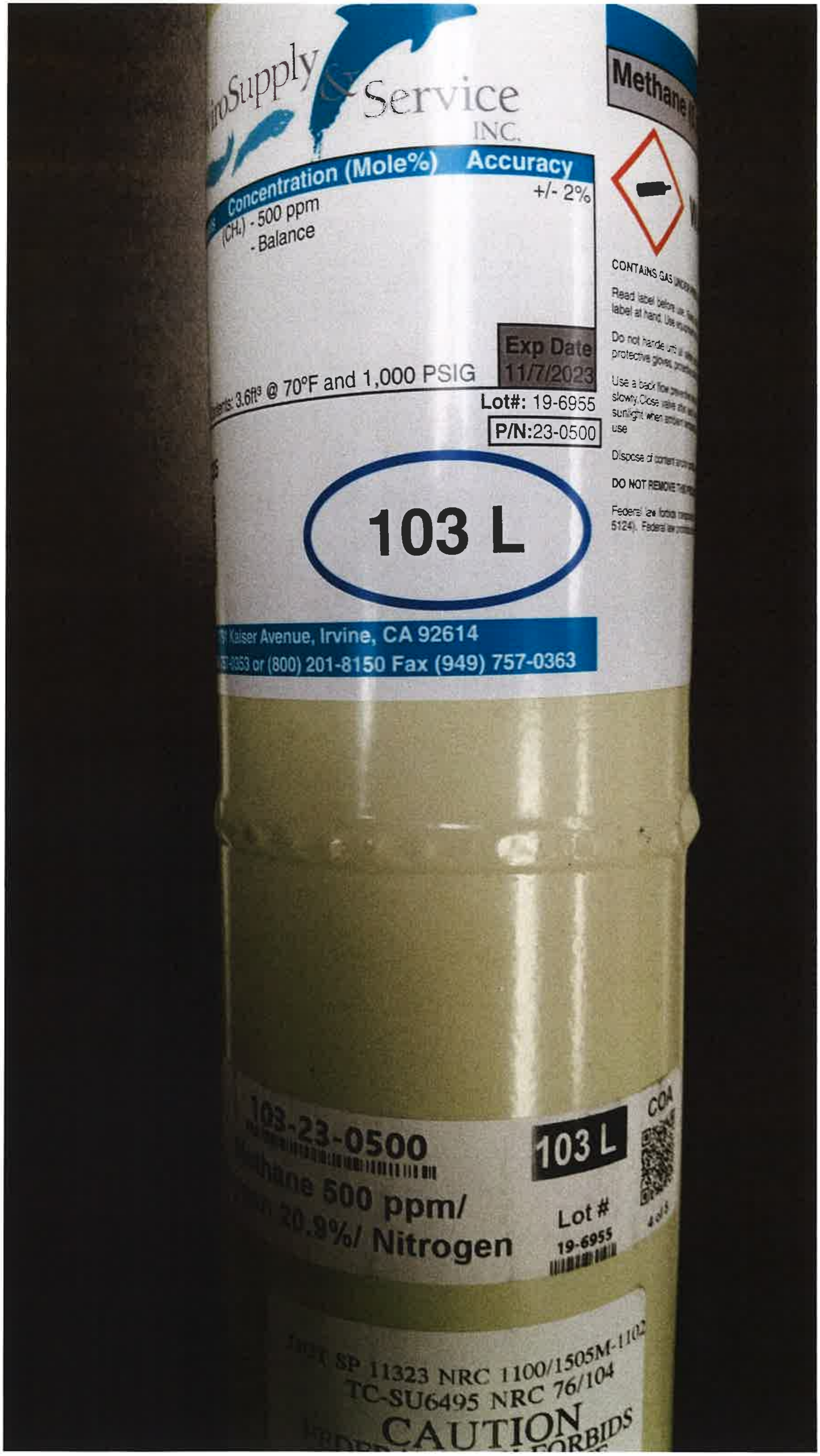
Lot # 19-6955

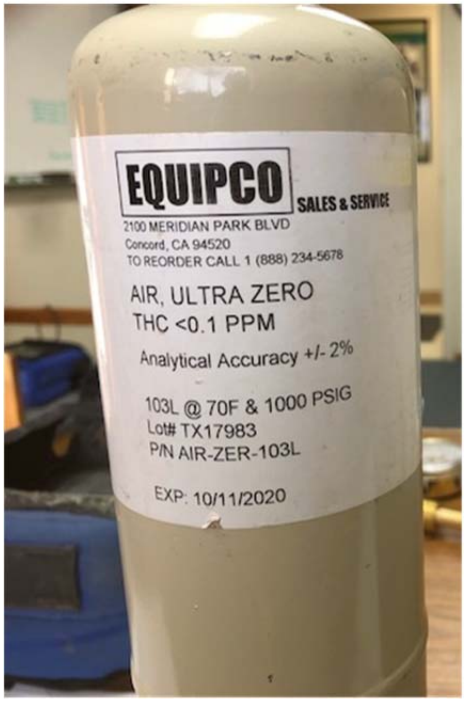
Mfg. Date: 7/24/2019
Parent Cylinder ID Number: 001763

Method of Preparation:
Gravimetric/Pressure Transfilled

Method of Analysis:
The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

Analysis By: Tony Janquart
Quality Assurance Manager
800-552-5003
Certificate Date: 7/24/2019


iroSupply & Service
INC.
Methane (
Concentration (Mole%)
Accuracy
(CH₄) - 500 ppm
- Balance
+/- 2%
CONTAINS GAS
Read label before use
label at hand. Use
Do not handle
protective gloves
Use a back flow
slowly. Close valve
sunlight when
use
Dispose of content
DO NOT REMOVE
Federal law forbids
5124). Federal law
Exp Date
11/7/2023
ents: 3.6ft³ @ 70°F and 1,000 PSIG
Lot#: 19-6955
P/N:23-0500
103 L
Kaiser Avenue, Irvine, CA 92614
or (800) 201-8150 Fax (949) 757-0363
103-23-0500
hane 500 ppm/
20.9%/ Nitrogen
103 L
Lot #
19-6955
COA
SP 11323 NRC 1100/1505M-1102
TC-SU6495 NRC 76/104
CAUTION
FORBIDS



EQUIPCO SALES & SERVICE
2100 MERIDIAN PARK BLVD
Concord, CA 94520
TO REORDER CALL 1 (888) 234-5678

AIR, ULTRA ZERO
THC <0.1 PPM

Analytical Accuracy +/- 2%

103L @ 70F & 1000 PSIG
Lot# TX17983
P/N AIR-ZER-103L

EXP: 10/11/2020

EQUIPCO SALES & SERVICE
2100 MERIDIAN PARK BLVD
Concord, CA 94520
TO REORDER CALL 1 (888) 234-5678

METHANE 500ppm
AIR BALANCE

Analytical Accuracy +/- 2%

103L @ 70F & 1000 PSIG
Lot# K024306
P/N MET-500-103L

EXP: 6/19/2020

EQUIPCO SALES & SERVICE

2100 MERIDIAN PARK BLVD
Concord, CA 94520
TO REORDER CALL 1 (888) 234-5678

AIR, ULTRA ZERO
THC <0.1 PPM

Analytical Accuracy +/- 2%

103L @ 70F & 1000 PSIG
Lot# TX17983
P/N AIR-ZER-103L

EXP: 10/11/2022

EQUIPCO SALES & SE

2100 MERIDIAN PARK BLVD
Concord, CA 94520
TO REORDER CALL 1 (888) 234-567

METHANE 500ppm
AIR BALANCE

Analytical Accuracy +/- 2%

103L @ 70F & 1000 PSIG
Lot# K024306
P/N MET-500-103L

EXP: 6/19/2022

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Guadalupe Date: 5/21/20

Time: ______ AM 1:05 PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 496 ppm

3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 0 ppm (a)
2. Downwind Reading (highest in 30 seconds): 0 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 0 ppm

Performed by: Markus Bernard

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Guadalupe Date: 6-8-20

Time: ______ AM 12:30 PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 499 ppm

3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 2 ppm (a)
2. Downwind Reading (highest in 30 seconds): 2 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 2 ppm

Performed by: Markus Bernard

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Guadalupe Date: 7/02/20

Time: ______ AM 1:30 PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 498 ppm

3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 2 ppm (a)
2. Downwind Reading (highest in 30 seconds): 2 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 2 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 3/23 /2020

Expiration Date (3 months): 6/23/2020

Time: 10:00 AM ______ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 500 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 2 ppm (c)

Meter Reading for Calibration Gas: 500 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 2 ppm (e)

Meter Reading for Calibration Gas: 500 ppm (f)

Calculate Precision:

$$\frac{\{|(500) - (b)| + |(500) - (d)| + |(500) - (f)|\}}{3} \times \frac{1}{500} \times 100$$

0.004 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 3/23/20

Expiration Date (3 months): 06/23/20

Time: 10:00 AM ______ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 496 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} = \underline{\;5\;}$$ seconds (must be less than 30 seconds)

Performed by: M. Bernard

CALIBRATION PRECISION TEST RECORD

Date: 7/02/2020

Expiration Date (3 months): 10/02/2020

Time: 9:37 AM ______ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 498 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 0 ppm (c)

Meter Reading for Calibration Gas: 498 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 0 ppm (e)

Meter Reading for Calibration Gas: 498 ppm (f)

Calculate Precision:

$$\frac{\{|(500) - (b)| + |(500) - (d)| + |(500) - (f)|\}}{3} \times \frac{1}{500} \times 100$$

0.4 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 7/02/20

Expiration Date (3 months): 10/02/20

Time: 9:37 AM ______ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Stabilized Reading Using Calibration Gas: 498 ppm

90% of the Stabilized Reading: 450 ppm

Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 7 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 498 ppm

90% of the Stabilized Reading: 450 ppm

Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 498 ppm

90% of the Stabilized Reading: 450 ppm

Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 6 seconds (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} = \underline{\quad 6 \quad}$$ seconds (must be less than 30 seconds)

Performed by: M. Bernard

CALIBRATION PRECISION TEST RECORD

Date: 7/15/2020

Expiration Date (3 months): 10/15/2020

Time: 9:45 AM ______ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 498 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 0 ppm (c)

Meter Reading for Calibration Gas: 497 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 0 ppm (e)

Meter Reading for Calibration Gas: 499 ppm (f)

Calculate Precision:

$$\frac{\{|(500) - (b)| + |(500) - (d)| + |(500) - (f)|\}}{3} \text{ x } \frac{1}{500} \text{ x } 100$$

0.4 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 7/15/20

Expiration Date (3 months): 10/15/20

Time: 9:45 AM ______ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Stabilized Reading Using Calibration Gas: 498 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 2 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 497 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 499 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 7 seconds (c)

Calculate Response Time:

$\frac{(a) + (b) + (c)}{3}$ = 4.666 seconds (must be less than 30 seconds)

Performed by: M. Bernard

APPENDIX I

MONTHLY SOLID WASTE PLACEMENT TOTALS

Guadalupe Recycling & Disposal Facility, San Jose, CA

Solid Waste Placement Totals

April 1, 2020 through September 30, 2020

Month	Decomposed Waste Disposed in tons	Total Waste Disposed During Reporting Period
Apr-20	7,866	57,907
May-20	8,812	
Jun-20	10,420	
Jul-20	10,877	
Aug-20	9,925	
Sep-20	10,008	

APPENDIX J

WELLFIELD MONITORING LOGS

Guadalupe Recycling & Disposal Facility, San Jose, CA
Wellfield Monitoring Report -April 16, 17, 21, 24 and 29, 2020

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide)(%	O2 (Oxygen)(%)	Balance Gas(%)	Initial Temperature(oF)	Adjusted Temperature(oF)	Initial Static Pressure("H2O)	Adjusted Static Pressure("H2O)
GDLC0188	4/17/2020 8:52	48.2	39.9	0.3	11.6	134.5	134.4	-33.45	-33.4
GDLC0189	4/17/2020 9:04	33.5	35.4	0.2	30.9	124.2	124.3	-0.67	-0.68
GDLC0190	4/21/2020 14:14	45.6	39.7	0	14.7	124.3	124.4	-2.44	-2.44
GDLC0191	4/17/2020 9:30	48.4	43.9	0	7.7	126	126	-28.79	-28.8
GDLC0192	4/16/2020 15:09	15.5	34.9	10.9	38.7	74	74	-0.1	-0.1
GDLC0193	4/17/2020 9:43	51.8	40.8	0.1	7.3	122.1	122.1	-0.95	-0.95
GDLC0196	4/17/2020 8:16	53.3	37.1	0.1	9.5	91.2	92.7	-1.14	-1.45
GDLC0197	4/21/2020 14:07	57.8	42.1	0.1	0	96.4	100.2	-0.08	-0.11
GDLC0232	4/17/2020 10:33	39.9	34.7	0.1	25.3	113.7	111.3	-0.88	-0.91
GDLC0233	4/17/2020 8:22	18.9	25.2	0.3	55.6	61.1	59.2	-1.42	-1.41
GDLC0234	4/16/2020 14:54	51.2	42.9	0	5.9	114.6	114.6	-0.21	-0.21
GDLC0236	4/17/2020 10:00	44.7	38.5	0.2	16.6	122.9	122.8	-1.29	-0.99
GDLC0237	4/21/2020 11:35	55	41.1	0	3.9	120.2	120.2	-1.07	-1.26
GDLC0238	4/16/2020 14:47	52.3	41.2	0	6.5	106.2	107	0.04	-0.01
GDLC0239	4/16/2020 13:33	45.1	37.4	0	17.5	118	118	-0.9	-0.6
GDLC0240	4/16/2020 14:05	54.5	45.4	0	0.1	113	113	-2.1	-3
GDLC0241	4/16/2020 14:17	51.1	48.8	0	0.1	116	117	-1	-1.3
GDLC0242	4/16/2020 14:09	53.6	46.3	0	0.1	115	115	-13.2	-19.1
GDLC0243	4/21/2020 14:33	45.5	54.5	0	0	104.8	104.4	-0.77	-0.64
GUAD0062	4/17/2020 11:38	49.2	37	0	13.8	89	90	-1.5	-1.6
GUAD0065	4/16/2020 12:42	48.4	37.9	0	13.7	116	115	-12.2	-12.1
GUAD0066	4/16/2020 12:29	44.7	35.2	0	20.1	82	82	-2.1	-2.3
GUAD0081	4/17/2020 12:06	53.5	39.3	0	7.2	114	115	-20.9	-23.5
GUAD0082	4/17/2020 12:15	58.9	38.1	0	3	90	98	-5.4	-8.4
GUAD0112	4/16/2020 12:59	47.5	34.7	0	17.8	126	126	-0.3	-0.3
GUAD0114	4/17/2020 11:01	47.9	37.8	0	14.3	132	132	-4.7	-4.8
GUAD0122	4/17/2020 10:21	48.2	35.8	2.6	13.4	127.3	127.1	-34.21	-33.7
GUAD0124	4/17/2020 9:24	59	40.9	0.1	0	125	125.3	-32.37	-32.36
GUAD0129	4/16/2020 14:33	59.4	40.5	0	0.1	101	102	-2.6	-2.2
GUAD0131	4/17/2020 10:17	57.8	42.1	0	0.1	109	109	1.4	1.4
GUAD0131	4/17/2020 10:19	57.6	42.3	0	0.1	109	109	1.3	1.3
GUAD0131	4/30/2020 15:32	57.4	42.6	0	0	80.8	80.7	1.2	1.21
GUAD0131	4/30/2020 15:34	57	43	0	0	80.3	80.3	1.27	1.28
GUAD0134	4/17/2020 11:47	53.2	39.5	0	7.3	123	123	-0.8	-1
GUAD0135	4/16/2020 13:37	58	41.9	0	0.1	129	129	-1.1	-2.1
GUAD0138	4/16/2020 12:33	43.1	34.3	0	22.6	83	83	-0.4	-0.4
GUAD0142	4/16/2020 12:20	51.5	37.5	0	11	106	106	-4.4	-4.7
GUAD0146	4/17/2020 10:06	57.2	41.5	0.1	1.2	130.9	130.9	-38.13	-38.14
GUAD0147	4/16/2020 15:18	53.5	38.6	0.1	7.8	113.1	113.3	-4.85	-5.75
GUAD0149	4/21/2020 11:30	47.4	38.7	0.2	13.7	132.2	132.2	-13.17	-13.18
GUAD0151	4/16/2020 15:11	51.5	35.5	0.1	12.9	129.6	129.7	-28.88	-28.89
GUAD0152	4/17/2020 8:40	59.2	40.7	0.1	0	129.5	129.5	-34.54	-34.56
GUAD0154	4/17/2020 14:41	59.6	40.3	0	0.1	122	122	-2.2	-2.1
GUAD0156	4/17/2020 14:59	48.6	36.6	0	14.8	121	121	-14.1	-14.1
GUAD0158	4/17/2020 15:06	48.5	35.9	0	15.6	128	128	-16.7	-16.8

GUAD0161	4/21/2020 11:01	48.7	38.3	0.7	12.3	138.8	138.8	-33.7	-33.74
GUAD0162	4/21/2020 11:12	52.5	40.3	1	6.2	142.4	142.2	-40.72	-40.73
GUAD0162	4/21/2020 11:27	CO was 0 ppm							
GUAD0172	4/17/2020 10:37	49.9	37.9	0	12.2	69	69	-7	-7.1
GUAD0173	4/17/2020 10:51	49.8	38.7	0	11.5	81	81	-0.5	-0.5
GUAD0176	4/16/2020 15:30	42.9	36.2	0	20.9	106.6	106.6	-0.96	-0.8
GUAD0177	4/21/2020 10:22	45.6	36.1	0.7	17.6	124.4	124.4	-25.04	-17.77
GUAD0178	4/17/2020 13:26	17	11.9	15.5	55.6	60	60	-40.2	-37
GUAD0178	4/17/2020 13:30	17	11.9	15.5	55.6	60	60	-40.2	-37.1
GUAD0178	4/22/2020 11:51	46.9	33.6	1.8	17.7	94.5	94.6	-37.01	-36.9
GUAD0179	4/17/2020 14:52	38.3	33.3	0	28.4	75	75	-0.2	-0.2
GUAD0180	4/17/2020 10:11	52.8	41.4	0	5.8	129.5	129.6	-39.23	-39.19
GUAD0181	4/17/2020 14:27	53.8	43.7	0	2.5	131	131	-28.8	-30.6
GUAD0183	4/24/2020 10:43	55.3	41.4	0.6	2.7	127.3	127.4	-33.59	-33.57
GUAD0184	4/16/2020 14:38	57.1	42.8	0	0.1	107	107	8.2	8.2
GUAD0184	4/16/2020 14:42	56.9	43	0	0.1	107	107	8.4	8.4
GUAD0185	4/21/2020 11:39	56.5	42.6	0	0.9	133.8	133.7	-0.08	-0.08
GUAD0186	4/17/2020 9:49	48.1	39.7	0.1	12.1	122.9	124	-12.98	-13.36
GUAD0187	4/16/2020 15:03	57.5	42.4	0	0.1	118	118	1.9	1.5
GUAD0187	4/16/2020 15:05	54	39.3	0.1	6.6	117	117	1.7	1.5
GUAD0198	4/17/2020 14:55	47.9	37.5	0	14.6	123	122	-2.5	-2.5
GUAD0199	4/17/2020 10:25	46	36.2	0.2	17.6	127.8	127.6	-18.77	-17.03
GUAD0199	4/17/2020 13:43	46.6	36.9	0	16.5	129	129	-14	-13.7
GUAD0200	4/17/2020 8:35	54.7	39.7	0	5.6	124	124	-36.51	-36.53
GUAD0201	4/16/2020 14:58	52.1	42.1	0.3	5.5	119.3	119.2	-35.44	-35.86
GUAD0202	4/21/2020 10:48	39	33.4	0.4	27.2	66	66.4	-1.47	-1.46
GUAD0203	4/16/2020 15:05	47.3	37.2	1.5	14	102.8	102.6	-28.35	-28.67
GUAD0204	4/17/2020 13:13	51	41.3	0	7.7	128	129	-22	-24.3
GUAD0204	4/17/2020 19:15	CO was 5 ppm							
GUAD0204	4/29/2020 13:42	CO was 5 ppm							
GUAD0204	4/29/2020 13:52	53.6	42.5	0	3.9	123.6	124.1	-8.29	-9.97
GUAD0205	4/17/2020 9:09	34.5	34.6	0	30.9	114.7	114.9	-0.29	-0.32
GUAD0207	4/17/2020 13:50	37	35.8	0	27.2	129	129	-0.1	-0.1
GUAD0208	4/17/2020 13:58	40.4	37.9	0	21.7	123	123	-0.1	-0.1
GUAD0209	4/17/2020 10:16	25.4	30.5	0.1	44	118.2	118.1	-0.02	-0.01
GUAD0211	4/21/2020 14:24	40.5	35.8	0	23.7	104.8	104.7	-0.38	-0.39
GUAD0213	4/21/2020 11:25	52	40.8	0	7.2	129.6	129.5	-5.18	-5.18
GUAD0214	4/21/2020 10:56	55.5	39.7	0	4.8	117.7	117.4	-0.53	-0.73
GUAD0215	4/17/2020 9:54	49.7	40.5	0.1	9.7	129.4	129.4	-1.03	-1.02
GUAD0216	4/17/2020 9:17	47.7	41.1	0.1	11.1	127.8	127.8	-0.51	-0.5
GUAD0217	4/17/2020 9:37	40.3	38.8	1.8	19.1	97.6	97.6	-0.17	-0.18
GUAD0218	4/16/2020 15:13	45.1	42.6	0	12.3	123	123	-0.6	-0.5
GUAD0219	4/21/2020 14:46	44	38.4	0	17.6	115.4	115.3	-1.1	-1.35
GUAD0220	4/16/2020 14:55	52.7	45.8	0	1.5	123	123	-28.3	-28.8
GUAD0221	4/17/2020 11:31	51.2	39.9	0	8.9	122	122	-3.5	-4.2
GUAD0222	4/16/2020 13:24	36.8	33	0	30.2	107	109	-0.3	-0.3
GUAD0223	4/16/2020 13:18	49.1	38.8	0	12.1	129	129	-0.6	-0.6

GUAD0224	4/16/2020 13:14	45.8	38	0	16.2	116	117	-0.1	-0.1
GUAD0225	4/16/2020 12:52	50.3	38	0	11.7	121	121	-0.7	-0.6
GUAD0226	Offline for filling								
GUAD0227	4/16/2020 12:48	52	39.9	0	8.1	116	116	-0.4	-0.4
GUAD0228	4/16/2020 13:04	54.3	40.6	0	5.1	111	113	-0.1	-0.1
GUAD0230	4/16/2020 13:26	47.8	38.1	0	14.1	114	114	-1.3	-1.3
GUADH11L	4/17/2020 11:58	48.8	33.3	1.9	16	71	70	-29.5	-27.5
GUADH12L	4/17/2020 12:25	36.9	21.5	6.9	34.7	75	77	-2.6	-2.6

Wells 114, 122, 134, 135, 149, 151, 152, 154, 156, 158, 161, 162, 180, 181, 182, 185, 186, 188, 189, 207, and 215. Horizontal Leachate Collectors H11L, H12L are approved for less than continuous operation (LTCO), and may operate at up to 15.0 percent oxygen.

There are 88 total collectors (86 vertical wells and 2 horizontal wells) at GRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

GCCS = Gas Collection and Control System

Guadalupe Recycling & Disposal Facility, San Jose, CA

Wellfield Monitoring Report -May 1, 4, 5, 7, 8, 11, 12, and 13, 2020

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide)(%	O2 (Oxygen)(%)	Balance Gas(%)	Initial Temperature(oF)	Adjusted Temperature(oF)	Initial Static Pressure("H2O)	Adjusted Static Pressure("H2O)
GDLC0188	5/8/2020 12:09	49.9	42.3	0.0	7.8	137.0	137.0	-32.2	-32.2
GDLC0189	5/8/2020 11:51	38.0	37.6	0.0	24.4	133.2	132.4	-0.6	-0.5
GDLC0190	5/8/2020 11:23	47.0	40.5	0.0	12.5	125.9	125.2	-3.1	-1.5
GDLC0191	5/8/2020 11:04	50.2	41.8	0.3	7.7	129.0	129.0	-28.2	-28.3
GDLC0192	5/1/2020 12:19	41.2	54.6	1.3	2.9	79.2	79.4	-0.2	-0.2
GDLC0192	5/1/2020 12:21	42.6	57.0	0.4	0.0	79.9	79.9	-0.1	-0.1
GDLC0192	5/5/2020 13:38	41.9	53.5	1.2	3.4	85.5	85.5	-0.2	-0.2
GDLC0193	5/8/2020 10:51	55.2	43.4	0.0	1.4	126.5	126.6	-2.0	-2.0
GDLC0196	5/12/2020 12:21	58.0	39.9	0.0	2.1	99.0	99.5	-1.5	-3.2
GDLC0197	5/12/2020 14:54	43.2	37.7	0.0	19.1	121.6	121.7	-1.3	-1.2
GDLC0232	5/8/2020 12:33	51.6	39.0	0.0	9.4	117.7	118.0	-0.7	-0.7
GDLC0233	5/8/2020 12:28	39.6	30.8	2.0	27.6	103.4	104.4	-0.8	-0.8
GDLC0234	5/5/2020 14:33	54.6	44.1	0.0	1.3	116.6	116.7	-0.3	-0.4
GDLC0236	5/8/2020 10:16	50.2	41.3	0.0	8.5	124.4	124.4	-0.6	-0.6
GDLC0237	5/12/2020 13:53	44.2	37.7	0.0	18.1	121.0	120.7	-1.8	-1.6
GDLC0238	5/5/2020 14:27	55.7	43.1	0.0	1.2	108.5	108.5	-0.1	-0.1
GDLC0239	5/4/2020 11:34	33.6	33.8	0.0	32.6	116.5	116.3	-0.8	-0.7
GDLC0240	5/4/2020 12:01	55.8	44.2	0.0	0.0	112.9	113.1	-3.6	-4.5
GDLC0241	5/4/2020 12:11	51.1	48.9	0.0	0.0	116.9	117.0	-1.5	-2.2
GDLC0242	5/4/2020 12:06	54.4	45.1	0.5	0.0	111.0	111.1	-40.8	-43.0
GDLC0243	5/5/2020 12:32	47.5	52.4	0.0	0.1	103.7	103.7	-0.4	-0.4
GUAD0062	5/4/2020 11:05	47.0	36.4	0.1	16.5	93.5	93.6	-2.2	-2.2
GUAD0065	5/4/2020 10:23	48.2	37.7	0.2	13.9	118.0	118.0	-10.9	-10.9
GUAD0066	5/4/2020 10:13	36.2	31.8	0.0	32.0	75.6	75.6	-3.0	-2.8
GUAD0081	5/13/2020 14:01	46.2	37.1	0.5	16.2	114.6	114.6	-25.3	-25.3
GUAD0082	5/13/2020 14:10	51.7	35.7	0.5	12.1	101.9	101.9	-8.6	-8.6
GUAD0112	5/4/2020 10:36	45.1	36.3	0.0	18.6	126.9	126.3	-0.5	-0.3
GUAD0114	5/13/2020 11:48	45.4	36.6	0.1	17.9	96.0	95.5	-4.9	-4.9
GUAD0122	5/7/2020 15:25	55.8	41.3	0.0	2.9	132.9	133.0	-33.9	-35.5
GUAD0124	5/8/2020 11:08	57.7	41.6	0.6	0.1	128.9	128.9	-30.6	-30.6
GUAD0129	5/5/2020 13:45	59.6	40.4	0.0	0.0	100.4	100.4	-3.1	-3.1
GUAD0129	5/8/2020 11:08	57.7	41.6	0.7	0.0	128.9	128.9	-30.6	-30.6
GUAD0131	5/12/2020 15:13	57.1	42.9	0.0	0.0	107.6	107.8	1.4	1.4
GUAD0131	5/12/2020 15:16	57.1	42.9	0.0	0.0	107.8	107.9	1.3	1.4
GUAD0134	5/5/2020 12:18	49.3	38.1	0.0	12.6	124.4	124.5	-1.6	-1.6
GUAD0135	5/4/2020 11:32	57.6	42.1	0.0	0.3	129.9	129.8	-4.2	-5.5
GUAD0138	5/4/2020 10:08	41.1	32.2	0.0	26.7	86.2	86.2	-0.6	-0.6
GUAD0142	5/4/2020 10:55	48.4	37.0	0.0	14.6	105.5	105.7	-6.0	-6.0
GUAD0146	5/7/2020 15:12	55.7	41.7	0.3	2.3	133.4	133.4	-37.7	-37.7
GUAD0147	5/12/2020 14:30	52.9	39.2	0.2	7.7	114.4	114.4	-7.1	-7.1
GUAD0149	5/12/2020 13:48	45.8	39.0	0.2	15.0	134.5	134.4	-13.7	-13.7
GUAD0151	5/8/2020 11:55	52.5	35.2	0.4	11.9	131.3	131.3	-28.4	-28.4
GUAD0152	5/12/2020 12:09	57.8	41.6	0.6	0.0	131.6	131.7	-35.7	-35.7
GUAD0154	5/8/2020 10:38	60.4	39.6	0.0	0.0	128.5	128.6	-1.3	-1.3

GUAD0156	5/8/2020 14:05	47.5	35.4	0.2	16.9	124.9	124.9	-17.6	-17.6
GUAD0158	5/12/2020 12:38	45.3	36.7	0.5	17.5	132.0	132.1	-27.4	-27.4
GUAD0161	5/12/2020 13:18	48.1	38.0	0.7	13.2	138.8	138.7	-35.3	-33.8
GUAD0162	5/12/2020 13:36	52.2	41.0	0.9	5.9	144.0	144.0	-40.5	-40.5
GUAD0172	5/12/2020 15:21	46.8	36.9	0.1	16.2	108.8	108.8	-7.2	-7.2
GUAD0173	5/13/2020 13:45	46.6	36.5	0.0	16.9	108.8	108.7	-7.3	-7.3
GUAD0176	5/8/2020 12:38	50.4	38.9	0.0	10.7	110.9	110.9	-0.7	-0.7
GUAD0177	5/13/2020 12:11	54.3	39.8	0.3	5.6	125.9	126.4	-10.5	-16.3
GUAD0178	5/8/2020 12:58	52.8	38.3	2.3	6.6	116.0	114.9	-37.5	-39.2
GUAD0179	5/8/2020 13:56	44.1	35.3	0.0	20.6	96.6	96.7	-0.3	-0.2
GUAD0180	5/7/2020 15:17	50.9	41.1	0.0	8.0	129.1	128.9	-37.9	-37.9
GUAD0181	5/8/2020 13:38	50.3	41.1	0.5	8.1	138.4	138.3	-35.1	-35.1
GUAD0183	5/19/2020 11:11	53.6	41.3	1.4	3.7	128.8	128.8	-34.0	-34.0
GUAD0184	5/5/2020 13:48	56.9	43.1	0.0	0.0	105.4	105.4	6.4	6.4
GUAD0185	5/12/2020 13:58	56.9	43.1	0.0	0.0	135.4	135.4	-0.8	-0.8
GUAD0186	5/8/2020 10:44	51.6	41.6	0.1	6.7	131.8	131.8	-14.4	-15.9
GUAD0187	5/5/2020 13:32	57.6	42.4	0.0	0.0	117.3	117.4	1.7	1.7
GUAD0198	5/8/2020 14:00	50.2	38.3	0.0	11.5	124.1	124.1	-2.5	-2.5
GUAD0199	5/8/2020 13:02	51.2	38.5	0.0	10.3	130.1	130.1	-13.9	-13.9
GUAD0200	5/8/2020 12:54	57.0	41.6	0.1	1.3	126.8	127.1	-37.0	-37.6
GUAD0201	5/5/2020 14:38	52.7	41.1	0.8	5.4	122.4	122.5	-34.4	-34.6
GUAD0202	5/12/2020 13:04	36.1	33.6	0.1	30.2	80.5	79.3	-1.5	-1.4
GUAD0203	5/12/2020 14:47	53.9	38.7	2.1	5.3	103.6	102.5	-39.0	-38.0
GUAD0204	5/5/2020 14:45	49.6	41.2	0.2	9.0	129.8	129.9	-33.5	-33.1
GUAD0204	5/5/2020 18:18	CO was 0 ppm							
GUAD0205	5/8/2020 11:26	40.2	36.4	0.0	23.4	129.6	129.9	-0.4	-0.4
GUAD0207	5/8/2020 13:27	46.0	39.6	0.0	14.4	131.2	131.4	-0.01	-0.01
GUAD0208	5/8/2020 13:34	52.9	44.5	0.0	2.6	121.5	122.9	-0.01	-0.02
GUAD0209	5/7/2020 15:20	36.2	37.4	0.0	26.4	126.5	126.5	0.02	0.02
GUAD0209	5/8/2020 10:11	38.8	38.6	0.0	22.6	120.8	120.9	-0.04	-0.03
GUAD0211	5/7/2020 15:07	41.1	36.3	0.0	22.6	104.9	105.5	-0.3	-0.3
GUAD0213	5/12/2020 13:43	48.5	39.9	0.0	11.6	133.3	133.3	-5.6	-5.6
GUAD0214	5/12/2020 13:10	46.8	37.6	0.0	15.6	124.8	124.9	-0.9	-0.9
GUAD0215	5/8/2020 10:33	54.2	43.5	0.0	2.3	131.3	131.3	-0.5	-0.5
GUAD0216	5/8/2020 11:35	51.5	43.4	0.0	5.1	132.6	132.5	-0.4	-0.4
GUAD0217	5/8/2020 10:56	54.5	43.8	0.6	1.1	104.0	111.8	-0.04	-0.3
GUAD0217	5/19/2020 10:56	53.7	44.1	0.0	2.2	120.7	120.7	-0.8	-0.8
GUAD0218	5/12/2020 15:04	51.5	43.8	0.0	4.7	121.5	121.9	-0.4	-0.4
GUAD0219	5/5/2020 13:15	49.5	39.7	0.0	10.8	122.4	122.4	-4.9	-4.8
GUAD0220	5/5/2020 14:13	53.7	44.9	0.0	1.4	122.4	122.3	-27.7	-27.9
GUAD0221	5/5/2020 12:38	45.0	38.7	0.0	16.3	115.4	115.4	-1.4	-1.4
GUAD0222	5/4/2020 11:14	32.8	32.0	0.0	35.2	109.2	109.3	-0.3	-0.3
GUAD0223	5/4/2020 11:19	47.5	38.0	0.0	14.5	127.7	127.7	-0.9	-0.9
GUAD0224	5/4/2020 11:24	35.1	32.4	0.0	32.5	113.3	113.0	-0.5	-0.5
GUAD0225	5/4/2020 10:43	49.2	37.7	0.0	13.1	121.0	121.0	-0.9	-0.9
GUAD0226	5/11/2020 11:08	56.6	43.0	0.4	0.0	121.9	121.9	-28.1	-28.2
GUAD0227	5/4/2020 10:28	46.8	38.6	0.0	14.6	117.5	117.5	-0.8	-0.8

GUAD0228	5/5/2020 12:11	36.6	34.1	0.0	29.3	108.9	108.6	-0.6	-0.5
GUAD0230	5/4/2020 11:09	44.1	37.7	0.0	18.2	113.0	113.2	-1.1	-1.0
GUADH11L	5/13/2020 14:43	35.9	24.6	8.1	31.4	73.0	71.4	-19.3	-9.0
GUADH11L	5/13/2020 14:47	31.7	21.7	9.6	37.0	72.0	71.2	-16.6	-11.7
GUADH12L	5/13/2020 15:14	27.1	16.5	11.4	45.0	74.8	74.2	-0.7	-0.5

Wells 114, 122, 134, 135, 149, 151, 152, 154, 156, 158, 161, 162, 180, 181, 182, 185, 186, 188, 189, 207, and 215. Horizontal Leachate Collectors H11L, H12L are approved for less than continuous operation (LTCO), and may operate at up to 15.0 percent oxygen.

There are 88 total collectors (86 vertical wells and 2 horizontal wells) at GRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

GCCS = Gas Collection and Control System

Guadalupe Recycling & Disposal Facility, San Jose, CA

Wellfield Monitoring Report -June 3, 9, 22, 25, 26, 29, and 30, 2020

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide)(%	O2 (Oxygen)(%)	Balance Gas(%)	Initial Temperature(oF)	Adjusted Temperature(oF)	Initial Static Pressure("H2O)	Adjusted Static Pressure("H2O)
GDLC0188	6/22/2020 12:45	46.1	40.4	0.1	13.4	137.0	137.0	-31.5	-31.5
GDLC0189	6/22/2020 12:52	43.7	38.7	0.2	17.4	121.7	124.2	-1.8	-1.4
GDLC0190	6/25/2020 17:37	53.2	39.7	0.3	6.8	122.5	122.8	-1.8	-2.8
GDLC0191	Offline for filling								
GDLC0192	6/25/2020 16:47	54.2	44.3	0.0	1.5	123.2	122.9	-5.9	-8.0
GDLC0193	6/29/2020 15:09	48.7	41.0	0.0	10.3	126.2	126.2	-0.9	-0.9
GDLC0196	6/22/2020 13:35	53.0	37.9	0.0	9.1	100.6	103.0	-1.6	-1.6
GDLC0197	6/26/2020 13:50	28.5	29.7	0.0	41.8	129.8	127.3	-0.9	-0.7
GDLC0232	6/22/2020 13:22	43.3	37.1	0.0	19.6	116.2	116.3	-0.7	-0.7
GDLC0233	6/22/2020 13:18	36.0	31.9	0.9	31.2	93.9	93.5	-3.6	-2.4
GDLC0234	6/3/2020 13:54	50.2	43.2	0.0	6.6	118.6	118.6	-0.7	-0.6
GDLC0234	6/9/2020 14:41	49.3	40.5	0.0	10.2	118.0	118.0	-0.6	-0.6
GDLC0235	6/26/2020 13:23	53.5	46.2	0.3	0.0	114.1	114.3	-17.4	-20.7
GDLC0236	6/9/2020 14:54	53.6	40.5	0.0	5.9	126.9	127.0	-1.2	-1.0
GDLC0237	6/22/2020 14:57	48.2	37.8	0.0	14.0	121.6	121.7	-1.2	-1.3
GDLC0238	6/9/2020 14:36	29.4	33.1	0.0	37.5	110.8	110.7	-1.5	-0.7
GDLC0239	6/9/2020 12:52	31.2	31.1	0.0	37.7	116.8	114.6	-2.3	-1.1
GDLC0240	6/25/2020 17:05	50.2	41.9	0.0	7.9	114.4	114.4	-4.7	-4.7
GDLC0241	6/9/2020 13:47	52.6	46.3	0.0	1.1	118.3	118.2	-1.8	-2.4
GDLC0242	6/9/2020 13:40	53.0	39.3	0.3	7.4	112.7	98.4	-40.9	-40.8
GDLC0243	6/9/2020 13:43	49.7	48.5	0.0	1.8	105.8	105.8	-0.4	-0.3
GUAD0062	6/9/2020 11:50	48.0	35.9	0.0	16.1	94.7	94.7	-1.7	-1.6
GUAD0065	6/9/2020 11:33	55.5	39.1	0.2	5.2	113.0	113.0	-29.0	-31.4
GUAD0066	6/26/2020 14:21	59.2	40.8	0.0	0.0	91.5	91.1	-0.4	-0.9
GUAD0081	6/26/2020 14:49	51.6	38.5	0.5	9.4	114.5	114.5	-21.7	-21.7
GUAD0082	6/26/2020 14:57	55.9	36.9	0.2	7.0	106.7	106.4	-6.9	-9.4
GUAD0112	6/9/2020 11:11	46.9	36.0	0.0	17.1	126.2	126.2	-0.3	-0.3
GUAD0114	6/29/2020 14:46	49.0	37.6	0.0	13.4	135.0	135.0	-4.4	-4.4
GUAD0122	6/9/2020 15:33	54.3	37.9	0.1	7.7	124.4	124.8	-33.1	-33.2
GUAD0124	Offline for filling								
GUAD0129	6/9/2020 13:52	61.7	38.3	0.0	0.0	101.9	101.9	3.6	3.5
GUAD0129	6/9/2020 14:08	61.2	37.7	0.0	1.1	90.8	90.5	3.1	3.1
GUAD0129	6/24/2020 16:46	60.5	39.5	0.0	0.0	102.0	102.0	8.9	8.9
GUAD0129	6/26/2020 13:05	59.5	40.2	0.3	0.0	102.0	102.3	-25.8	-26.2
GUAD0131	6/29/2020 14:23	58.5	41.5	0.0	0.0	111.5	111.5	0.06	0.09
GUAD0134	6/26/2020 12:33	54.1	39.1	0.1	6.7	124.2	124.4	-1.4	-1.5
GUAD0135	6/9/2020 12:43	40.2	35.5	0.0	24.3	129.8	129.7	-6.4	-3.5
GUAD0138	6/9/2020 11:36	53.2	32.5	0.0	14.3	94.6	94.7	-0.4	-0.4
GUAD0142	6/9/2020 11:42	49.7	34.9	0.1	15.3	105.7	105.7	-4.9	-4.9
GUAD0146	6/9/2020 14:58	55.6	38.9	0.1	5.4	132.5	132.6	-37.1	-37.1
GUAD0147	6/30/2020 15:56	50.3	35.8	3.0	10.9	127.7	127.8	-31.4	-31.3
GUAD0149	6/22/2020 14:54	44.2	37.7	0.0	18.1	136.1	136.1	-13.4	-12.8
GUAD0151	6/22/2020 12:42	51.8	35.9	0.1	12.2	132.8	132.9	-27.5	-27.5
GUAD0151	6/29/2020 15:48	50.1	35.1	0.1	14.7	132.3	132.3	-19.7	-19.6

GUAD0152	6/26/2020 12:53	56.8	41.3	0.5	1.4	132.0	132.0	-28.7	-28.7
GUAD0154	6/29/2020 15:40	57.5	40.9	0.2	1.4	90.2	90.2	-12.2	-12.7
GUAD0156	6/29/2020 16:15	49.7	35.8	0.0	14.5	124.8	124.7	-14.3	-14.2
GUAD0158	6/29/2020 16:17	46.2	35.8	0.2	17.8	132.9	133.0	-21.9	-21.9
GUAD0161	6/22/2020 14:28	47.7	36.7	0.1	15.5	138.6	138.6	-33.6	-32.5
GUAD0162	6/22/2020 14:41	51.9	38.9	0.2	9.0	143.8	143.8	-39.2	-39.2
GUAD0162	6/22/2020 14:48	CO was 0 ppm							
GUAD0172	6/29/2020 14:29	45.9	36.6	0.0	17.5	109.3	109.3	-6.8	-6.8
GUAD0173	6/29/2020 14:35	55.6	40.9	0.0	3.5	89.8	89.7	-0.4	-0.4
GUAD0173	6/29/2020 14:44	54.0	40.5	0.0	5.5	119.2	119.4	-0.1	-0.1
GUAD0176	6/22/2020 13:07	44.7	36.5	0.0	18.8	110.5	110.8	-0.8	-1.1
GUAD0177	6/29/2020 15:59	51.0	38.8	0.6	9.6	126.4	126.4	-28.8	-28.8
GUAD0178	6/3/2020 14:18	56.3	42.4	0.5	0.8	126.6	126.9	-31.6	-38.8
GUAD0179	6/22/2020 15:11	48.8	35.9	0.0	15.3	109.5	109.5	-0.1	-0.1
GUAD0180	6/9/2020 15:07	52.6	39.9	0.0	7.5	92.7	92.8	-39.1	-39.1
GUAD0181	6/30/2020 15:59	48.4	38.5	2.1	11.0	138.6	138.6	-31.2	-31.2
GUAD0183	6/25/2020 17:31	52.8	39.5	1.6	6.1	128.9	128.9	-31.0	-30.9
GUAD0184	6/26/2020 13:11	56.9	42.6	0.5	0.0	123.7	123.6	-28.3	-28.2
GUAD0185	6/9/2020 15:37	51.1	39.9	0.2	8.8	138.3	138.3	-34.7	-34.7
GUAD0185	6/22/2020 15:00	54.5	41.0	0.0	4.5	136.3	136.3	-0.6	-0.6
GUAD0186	6/29/2020 15:20	53.3	41.3	0.1	5.3	124.6	124.0	-7.8	-7.6
GUAD0187	6/25/2020 16:45	57.5	41.4	0.1	1.0	123.3	123.4	-31.6	-31.6
GUAD0198	6/22/2020 15:15	48.1	36.5	0.0	15.4	124.4	124.4	-2.4	-2.3
GUAD0199	6/3/2020 14:23	51.6	39.2	0.0	9.2	129.9	129.8	-12.7	-12.7
GUAD0200	6/29/2020 16:11	51.9	39.5	0.5	8.1	126.1	126.1	-29.0	-29.0
GUAD0201	6/3/2020 14:15	52.5	41.4	0.6	5.5	98.3	98.3	-33.6	-33.7
GUAD0201	6/9/2020 14:46	52.6	39.4	0.3	7.7	120.6	120.5	-33.1	-33.2
GUAD0202	6/22/2020 14:13	37.5	32.9	0.0	29.6	95.2	96.5	-1.1	-1.0
GUAD0203	6/26/2020 14:16	53.1	39.3	1.9	5.7	110.4	110.5	-28.6	-28.5
GUAD0204	6/22/2020 12:57	47.2	39.3	0.0	13.5	131.3	131.3	-29.5	-29.4
GUAD0205	6/25/2020 17:43	46.0	39.0	0.1	14.9	126.4	127.3	-0.3	-0.3
GUAD0207	6/26/2020 12:46	43.7	40.5	0.0	15.8	131.3	131.3	-0.2	-0.2
GUAD0208	6/9/2020 15:42	44.5	38.1	0.0	17.4	91.6	91.6	-0.03	-0.01
GUAD0209	6/9/2020 15:13	50.8	43.1	0.0	6.1	125.5	126.4	-0.01	-0.01
GUAD0211	6/9/2020 15:03	53.6	35.3	0.0	11.1	97.9	97.3	-0.2	-0.2
GUAD0213	6/22/2020 14:49	47.2	37.2	0.0	15.6	133.8	133.9	-5.6	-5.6
GUAD0214	6/22/2020 14:21	43.3	35.6	0.0	21.1	125.7	127.1	-0.8	-0.7
GUAD0215	6/29/2020 15:05	54.9	43.1	0.0	2.0	136.9	136.9	-3.6	-3.6
GUAD0216	6/25/2020 17:46	51.3	42.8	0.0	5.9	130.5	130.5	-0.4	-0.4
GUAD0217	6/29/2020 15:14	51.4	44.2	0.0	4.4	125.8	125.8	-0.9	-0.9
GUAD0218	6/25/2020 16:31	43.2	39.7	0.1	17.0	124.8	124.8	-1.4	-1.3
GUAD0219	6/25/2020 16:40	50.4	39.2	0.0	10.4	122.3	122.2	-4.6	-4.8
GUAD0220	6/25/2020 16:52	53.3	43.9	0.0	2.8	123.0	123.0	-20.9	-18.4
GUAD0221	6/25/2020 16:35	44.1	38.3	0.0	17.6	115.8	115.8	-1.6	-1.4
GUAD0222	6/9/2020 12:07	32.8	32.9	0.0	34.3	109.3	109.5	-0.2	-0.3
GUAD0223	6/9/2020 12:31	43.6	35.3	0.0	21.1	126.8	126.0	-0.7	-0.5
GUAD0224	6/9/2020 12:37	24.5	27.6	0.0	47.9	109.1	108.6	-0.2	-0.2

GUAD0225	6/25/2020 17:14	48.2	37.2	0.0	14.6	122.1	122.1	-0.7	-0.7
GUAD0226	6/9/2020 13:29	49.3	38.0	0.1	12.6	118.8	118.8	-28.4	-28.3
GUAD0227	6/9/2020 11:17	46.8	37.7	0.0	15.5	87.0	86.9	-0.7	-0.7
GUAD0228	6/25/2020 17:08	35.9	32.3	0.0	31.8	103.1	103.7	-0.3	-0.2
GUAD0230	6/9/2020 11:59	49.8	37.6	0.0	12.6	113.5	113.5	-0.5	-0.5
GUADH11L	6/26/2020 14:39	54.3	35.2	2.4	8.1	90.7	91.3	-8.1	-12.3
GUADH12L	6/26/2020 15:05	59.1	40.9	0.0	0.0	103.6	103.7	0.0	0.0

Wells 114, 122, 134, 135, 149, 151, 152, 154, 156, 158, 161, 162, 180, 181, 182, 185, 186, 188, 189, 204, 207, and 215. Horizontal Leachate Collectors H11L, H12L are approved for less than continuous operation (LTCO), and may operate at up to 15.0 percent oxygen.

There are 89 total collectors (87 vertical wells and 2 horizontal wells) at GRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

GCCS = Gas Collection and Control System

Guadalupe Recycling & Disposal Facility, San Jose, CA
Wellfield Monitoring Report -July 1, 20, 23, 24, 25, 27, 28, 29, and 30, 2020

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide)(%)	O2 (Oxygen)(%)	Balance Gas(%)	Initial Temperature(oF)	Adjusted Temperature(oF)	Initial Static Pressure("H2O)	Adjusted Static Pressure("H2O)
GDLC0188	7/25/2020 13:06	46.1	41.4	0	12.5	138	138	-30.80	-30.40
GDLC0189	7/25/2020 12:52	37.4	40.1	0	22.5	138	138	-7.90	-33.40
GDLC0189	7/25/2020 12:55	36.9	39.3	0	23.8	138	133	-4.60	-33.30
GDLC0190	7/25/2020 12:34	38.7	37	0	24.3	129	129	-5.00	-5.00
GDLC0192	7/20/2020 18:07	49.3	49.7	0	1	125	125	-7.90	-8.70
GDLC0193	7/23/2020 14:32	34.7	36.2	0	29.1	127	127	-1.50	-1.40
GDLC0196	7/23/2020 17:19	25.7	27.9	0.1	46.3	110	107	-22.70	-3.20
GDLC0197	7/27/2020 14:31	45.5	37.3	0	17.2	124	124	-0.90	-0.80
GDLC0232	7/23/2020 17:28	45.4	38	0	16.6	115	0	-0.50	-0.30
GDLC0232	7/23/2020 17:28	45.4	38	0	16.6	115	115	-0.50	-0.20
GDLC0233	7/23/2020 17:25	34.6	31.7	0.9	32.8	115	115	-6.30	-5.70
GDLC0234	7/23/2020 18:32	36.9	36.6	0.1	26.4	117	117	-0.10	-0.10
GDLC0235	7/20/2020 18:12	47	52.9	0	0.1	118	118	-18.90	-21.70
GDLC0236	7/23/2020 15:19	35.5	37.2	0.1	27.2	127	127	-1.30	-1.00
GDLC0237	7/25/2020 15:17	36.5	33.8	0	29.7	123	122	-2.00	-1.10
GDLC0238	7/1/2020 14:40	34.9	35	0	30.1	109.9	109.5	-0.29	-0.13
GDLC0238	7/24/2020 18:02	35.9	37.7	0	26.4	103	107	-0.10	-0.10
GDLC0239	7/20/2020 14:51	28.8	30.7	0	40.5	114	114	-0.40	-0.20
GDLC0240	7/20/2020 17:55	50.3	42.8	0	6.9	116	116	-4.20	-4.20
GDLC0241	7/20/2020 16:33	52.1	47.8	0	0.1	119	119	-2.30	-2.30
GDLC0241	7/20/2020 17:26	51.9	48	0	0.1	120	120	-2.30	-2.60
GDLC0242	7/20/2020 17:45	54.4	45.4	0	0.2	114	114	-38.20	-38.00
GDLC0243	7/20/2020 17:51	47.9	49	0	3.1	109	109	-0.20	-0.10
GDLC0244	7/2/2020 15:09	54.4	44.5	0.1	1	103.2	103.9	-0.76	-0.76
GUAD0062	7/20/2020 13:51	50.1	36.6	0.1	13.2	93	93	-1.70	-1.60
GUAD0065	7/24/2020 17:22	55	41.8	0	3.2	101	101	-35.00	-35.60
GUAD0066	7/24/2020 17:07	51.5	37.1	0	11.4	101	101	-2.60	-2.60
GUAD0081	7/27/2020 15:17	48.3	39.2	0	12.5	112	112	-24.20	-24.20
GUAD0082	7/27/2020 15:23	49.9	35.4	0	14.7	105	105	-9.10	-9.60
GUAD0112	7/24/2020 17:36	46	36.9	0	17.1	114	114	-0.40	-0.40
GUAD0114	7/28/2020 14:22	44.4	36.9	0	18.7	134	134	-4.70	-4.70
GUAD0114	7/28/2020 14:23	44.4	36.9	0	18.7	134	134	-4.70	-3.90
GUAD0122	7/29/2020 13:44	56.8	43	0	0.2	133	133	-36.20	-37.10
GUAD0124	Offline for filling								
GUAD0129	7/20/2020 16:25	59.1	40.8	0	0.1	106	106	-32.40	-32.40
GUAD0131	7/1/2020 15:09	57.5	42.4	0	0.1	112.4	112.4	-34.70	-34.72
GUAD0131	7/1/2020 15:30	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-NEW JUMPER INSTALLED							
GUAD0131	7/27/2020 15:01	57.9	41.9	0	0.2	114	114	-36.80	-35.80
GUAD0131	7/28/2020 13:56	58	40.7	0.3	1	114	114	-36.30	-36.40
GUAD0134	7/25/2020 15:39	50.2	37.7	0	12.1	124	124	-1.30	-1.30
GUAD0135	7/20/2020 14:37	52.1	40	0	7.9	129	129	-1.90	-1.80
GUAD0138	7/24/2020 17:03	41	33.6	0	25.4	99	99	-0.60	-0.50
GUAD0138	7/24/2020 17:10	41.3	33.1	0	25.6	99	99	-0.50	-0.40
GUAD0142	7/24/2020 16:58	48.9	37.7	0.1	13.3	106	106	-5.00	-5.00

GUAD0146	7/23/2020 14:43	56.9	42.9	0	0.2	132	133	-33.10	-34.40
GUAD0147	7/17/2020 17:54	46.5	37.9	0.1	15.5	114	114	-12.30	-12.30
GUAD0149	7/25/2020 15:13	39.8	38.3	0	21.9	130	130	-28.60	-22.40
GUAD0151	7/25/2020 13:01	53.2	37.1	0.1	9.6	136	136	-27.00	-27.00
GUAD0152	7/27/2020 14:17	56.8	42.3	0	0.9	132	132	-31.00	-31.00
GUAD0154	7/23/2020 14:37	56.3	43.6	0	0.1	138	139	-17.80	-17.80
GUAD0156	7/25/2020 13:46	52.5	37.8	0	9.7	124	119	-16.90	-40.70
GUAD0158	7/25/2020 13:51	48.7	37.8	0	13.5	132	132	-26.40	-26.20
GUAD0158	7/25/2020 13:52	48.5	37.9	0.4	13.2	129	129	-26.40	-26.40
GUAD0161	7/25/2020 14:52	48.7	38.7	0	12.6	136	136	-31.10	-32.40
GUAD0162	7/25/2020 14:59	52.5	40.9	0	6.6	142	142	-36.90	-37.00
GUAD0172	7/28/2020 14:07	31.3	30.9	0	37.8	112	114	-7.80	-2.40
GUAD0173	7/28/2020 14:15	27.6	29.7	0	42.7	113	113	-0.40	-0.10
GUAD0176	7/23/2020 17:33	47	42.4	0	10.6	111	111	-0.50	-0.50
GUAD0177	7/29/2020 13:35	47.6	39.7	0	12.7	127	127	-19.90	-19.60
GUAD0178	7/23/2020 17:07	53	41.7	0.9	4.4	118	118	-30.40	-34.50
GUAD0179	7/25/2020 13:39	55.9	40	0.1	4	108	108	-0.20	-0.20
GUAD0180	7/23/2020 14:51	54.3	42.7	0	3	129	129	-38.60	-38.50
GUAD0181	7/23/2020 16:12	52.5	43.3	0.2	4	137	137	-33.60	-33.60
GUAD0181	7/25/2020 15:22	29.6	31.1	0	39.3	133	128	-11.20	-3.10
GUAD0183	7/27/2020 14:12	56.9	42.9	0	0.2	128	128	-31.60	-31.20
GUAD0184	7/20/2020 16:39	36.6	41.8	0	21.6	117	117	-32.90	-32.80
GUAD0185	7/29/2020 13:52	32.5	33	0.1	34.4	127	127	-0.10	0.00
GUAD0185	7/30/2020 10:12	31.7	31.3	0.1	36.9	122	122	-0.10	-0.10
GUAD0186	7/23/2020 14:28	52.6	42.5	0.1	4.8	127	125	-11.30	-16.30
GUAD0187	7/29/2020 15:17	56.9	42.9	0	0.2	123	123	-37.80	-37.80
GUAD0191	Offline for filling								
GUAD0198	7/25/2020 13:43	52.8	39.5	0	7.7	125	125	-2.4	-2.8
GUAD0199	7/23/2020 17:11	57.4	39.9	0.4	2.3	129	129	-7.4	-8.2
GUAD0200	7/25/2020 13:30	52.4	41	0.4	6.2	127	127	-36.4	-35.4
GUAD0201	7/23/2020 18:24	54.1	41.7	0.1	4.1	123	124	-31.5	-31.1
GUAD0202	7/25/2020 14:40	42.7	35.6	0.1	21.6	103	103	-1.4	-1.3
GUAD0202	7/29/2020 13:19	35.2	34.8	0.1	29.9	117	117	-1.7	-1.7
GUAD0203	7/27/2020 14:42	44.7	34.5	3.6	17.2	102	104	-33.7	-33
GUAD0204	7/23/2020 18:15	47.9	39.2	0	12.9	132	132	-27.3	-27.8
GUAD0204	7/23/2020 18:21	36.9	36.2	0	26.9	119	119	-0.5	-0.1
GUAD0205	7/25/2020 12:46	31.6	34.9	0	33.5	132	132	-0.6	-0.4
GUAD0207	7/23/2020 16:26	40.4	37.7	0	21.9	132	132	0.00	-0.1
GUAD0208	7/23/2020 16:21	44.3	42.1	0.7	12.9	119	119	-0.10	-0.10
GUAD0209	7/23/2020 15:07	30.6	34.6	0	34.8	132	132	-0.10	-0.10
GUAD0209	7/24/2020 15:26	CO was 0 ppm							
GUAD0209	7/24/2020 15:30	43.7	42.9	0.1	13.3	114	123	-0.1	0.00
GUAD0211	7/23/2020 14:48	34.8	33.8	0	31.4	115	115	-0.7	-0.7
GUAD0213	7/25/2020 15:07	42.9	37	0	20.1	129	128	-5.4	-3.5
GUAD0214	7/25/2020 14:47	56.7	40.1	0	3.2	122	125	-0.7	-40.1
GUAD0215	7/23/2020 14:21	41.2	39.7	0	19.1	133	133	-4.9	-2.9
GUAD0216	7/25/2020 12:40	47.4	43	0	9.6	132	132	-0.7	-0.7

GUAD0217	7/20/2020 18:26	42.6	43.8	0	13.6	126	124	-0.7	-0.7
GUAD0218	7/20/2020 18:20	36.5	37.7	0	25.8	125	125	-0.9	-0.5
GUAD0219	7/20/2020 18:32	35.9	36.1	0	28	123	123	-5.8	-3.5
GUAD0220	7/20/2020 18:02	50.9	44.3	0	4.8	124	124	-20.5	-22.5
GUAD0221	7/20/2020 18:39	39.4	36.7	0	23.9	115	115	-0.8	-0.8
GUAD0222	7/20/2020 14:06	39.9	35.8	0.1	24.2	109	109	-0.1	-0.1
GUAD0222	7/24/2020 17:31	47.9	38	0	14.1	123	123	-0.7	-0.7
GUAD0223	7/20/2020 14:24	48.4	37.2	0	14.4	127	127	-0.2	-0.2
GUAD0224	7/20/2020 14:30	29.5	29.7	0	40.8	111	111	-0.1	-0.1
GUAD0225	7/29/2020 13:07	48.5	38.2	0.1	13.2	123	123	-0.8	-0.8
GUAD0226	7/20/2020 16:15	51	41.6	0.2	7.2	119	119	-26.6	-26.7
GUAD0227	7/24/2020 17:28	46.7	39.3	0	14	120	120	-0.8	-0.7
GUAD0228	7/24/2020 17:57	39.3	33.4	0.1	27.2	109	109	-0.4	-0.4
GUAD0230	7/20/2020 14:10	52.6	39.1	0	8.3	114	115	-0.5	-0.5
GUAD0230	7/20/2020 17:43	50.2	42.1	0	7.7	114	114	-4.1	-4.1
GUADH11L	7/27/2020 15:11	59.1	40.7	0	0.2	93	93	-0.1	-0.3
GUADH12L	7/27/2020 15:32	61.4	38.3	0.2	0.1	94	94	-1.6	-1.8

Wells 114, 122, 134, 135, 149, 151, 152, 154, 156, 158, 161, 162, 180, 181, 182, 185, 186, 188, 189, 207, and 215. Horizontal Leachate Collectors H11L, H12L are approved for less than continuous operation (LTCO), and may operate at up to 15.0 percent oxygen.

There are 90 total collectors (88 vertical wells and 2 horizontal wells) at GRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

GCCS = Gas Collection and Control System

Guadalupe Recycling & Disposal Facility, San Jose, CA

Wellfield Monitoring Report -August 6, 24, 26, 28 and 29, 2020

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide)(%)	O2 (Oxygen)(%)	Balance Gas(%)	Initial Temperature(oF)	Adjusted Temperature(oF)	Initial Static Pressure("H2O)	Adjusted Static Pressure("H2O)
GDLC0188	8/26/2020 11:26	44.7	40.6	0.0	14.7	121.0	121.0	-26.4	-26.3
GDLC0189	8/26/2020 11:34	31.6	34.4	0.0	34.0	125.0	124.0	-2.2	-1.8
GDLC0190	8/29/2020 16:30	41.4	37.9	0.0	20.7	125.0	125.0	-4.7	-2.1
GDLC0192	8/24/2020 15:41	42.9	42.3	2.7	12.1	124.0	125.0	-9.1	-5.2
GDLC0193	8/26/2020 9:39	54.9	43.7	0.0	1.4	122.0	122.0	-0.1	-0.5
GDLC0196	8/26/2020 11:15	59.7	40.2	0.0	0.1	100.0	100.0	-4.6	-9.7
GDLC0197	8/29/2020 14:49	29.9	31.1	0.0	39.0	129.0	129.0	-0.9	-0.6
GDLC0232	8/26/2020 11:13	49.7	40.2	0.0	10.1	93.0	93.0	-0.2	-0.2
GDLC0233	8/26/2020 11:09	28.2	26.5	2.1	43.2	110.0	110.0	-1.7	-1.7
GDLC0234	8/26/2020 10:59	41.6	39.6	0.0	18.8	108.0	108.0	-0.1	-0.1
GDLC0235	8/24/2020 15:48	46.5	50.0	0.3	3.2	118.0	118.0	-20.6	-16.9
GDLC0236	8/26/2020 9:58	45.2	40.0	0.0	14.8	127.0	127.0	-0.7	-0.7
GDLC0237	8/26/2020 10:56	55.1	41.3	0.0	3.6	123.0	123.0	-1.1	-1.1
GDLC0238	8/26/2020 10:28	27.4	33.5	0.0	39.1	102.0	102.0	-0.1	-0.1
GDLC0239	8/28/2020 14:52	27.0	28.6	0.1	44.3	108.0	108.0	-0.2	-0.3
GDLC0240	8/24/2020 14:40	47.1	41.2	0.1	11.6	116.0	116.0	-4.4	-4.4
GDLC0241	8/24/2020 15:08	49.3	47.0	1.0	2.7	120.0	120.0	-2.7	-2.7
GDLC0242	8/24/2020 14:45	54.4	45.4	0.0	0.2	118.0	118.0	-39.0	-39.1
GDLC0243	8/29/2020 13:11	44.3	47.3	0.0	8.4	108.0	109.0	-0.1	-0.1
GDLC0244	8/28/2020 15:12	29.2	33.4	0.0	37.4	114.0	114.0	-0.3	-0.1
GUAD0062	8/29/2020 14:40	49.0	37.3	0.0	13.7	96.0	96.0	-1.4	-1.4
GUAD0065	8/26/2020 9:59	55.1	40.8	0.0	4.1	100.0	100.0	-37.2	-37.9
GUAD0066	8/26/2020 9:55	51.3	37.2	0.0	11.5	100.0	100.0	-3.1	-3.1
GUAD0081	8/29/2020 16:55	46.5	38.4	0.0	15.1	111.0	112.0	-24.6	-24.6
GUAD0082	8/29/2020 16:58	46.6	35.4	0.3	17.7	98.0	98.0	-9.7	-9.2
GUAD0112	8/26/2020 10:11	45.5	36.9	0.0	17.6	120.0	120.0	-0.6	-0.6
GUAD0114	8/29/2020 13:36	48.3	38.4	0.0	13.3	134.0	134.0	-3.0	-3.0
GUAD0122	8/29/2020 16:11	56.1	41.2	0.0	2.7	133.0	133.0	-34.5	-35.0
GUAD0124	Offline For Filling								
GUAD0129	8/24/2020 15:18	45.8	31.7	4.7	17.8	107.0	107.0	-26.0	-28.0
GUAD0131	8/29/2020 14:17	57.6	42.2	0.1	0.1	114.0	114.0	-36.2	-37.1
GUAD0134	8/24/2020 13:33	47.6	38.5	0.1	13.8	125.0	125.0	-1.2	-1.2
GUAD0135	8/24/2020 13:52	51.6	40.3	0.0	8.1	129.0	129.0	-1.8	-1.8
GUAD0138	8/26/2020 9:50	51.5	35.1	0.0	13.4	85.0	85.0	-0.6	-0.5
GUAD0142	8/26/2020 10:21	48.6	37.3	0.0	14.1	100.0	100.0	-5.1	-5.1
GUAD0146	8/26/2020 10:05	49.9	38.0	1.6	10.5	120.0	120.0	-35.1	-35.2
GUAD0147	8/29/2020 15:03	38.4	35.3	0.2	26.1	112.0	114.0	-23.2	-14.8
GUAD0149	8/26/2020 10:53	52.9	41.3	0.2	5.6	130.0	130.0	-6.5	-6.5
GUAD0151	8/26/2020 11:30	52.1	36.8	0.0	11.1	120.0	120.0	-25.7	-25.6
GUAD0152	8/29/2020 15:55	56.9	41.2	0.0	1.9	132.0	132.0	-30.3	-30.8
GUAD0154	8/29/2020 16:04	56.8	43.1	0.0	0.1	135.0	138.0	-15.8	-16.0
GUAD0156	8/26/2020 12:18	45.8	35.8	0.0	18.4	110.0	110.0	-18.8	-17.3
GUAD0158	8/29/2020 15:35	43.2	36.1	0.1	20.6	129.0	128.0	-26.7	-23.0

GUAD0161	8/26/2020 11:44	47.8	37.4	0.0	14.8	132.0	132.0	-34.3	-33.1
GUAD0161	8/26/2020 11:46	47.9	37.6	0.0	14.5	132.0	132.0	-33.0	-33.5
GUAD0162	8/26/2020 11:51	52.9	41.1	0.0	6.0	133.0	133.0	-39.9	-39.8
GUAD0162	8/26/2020 11:54	53.0	41.1	0.0	5.9	133.0	133.0	-39.9	-39.8
GUAD0172	8/29/2020 14:25	58.7	39.7	0.0	1.6	113.0	113.0	-0.2	-0.2
GUAD0173	8/29/2020 13:32	56.8	41.7	0.1	1.4	118.0	118.0	-0.1	-0.1
GUAD0176	8/26/2020 11:20	51.9	42.5	0.0	5.6	95.0	100.0	-0.6	-0.7
GUAD0177	8/29/2020 15:10	50.3	40.5	0.0	9.2	128.0	128.0	-18.6	-18.5
GUAD0178	8/26/2020 11:03	53.7	39.8	0.4	6.1	115.0	115.0	-30.5	-34.0
GUAD0179	8/26/2020 12:09	34.2	32.7	0.0	33.1	100.0	100.0	-0.1	-0.1
GUAD0180	8/26/2020 10:19	49.7	39.9	0.4	10.0	123.0	123.0	-38.8	-38.6
GUAD0181	8/26/2020 10:43	43.0	36.3	2.6	18.1	126.0	126.0	-32.6	-27.0
GUAD0183	8/29/2020 14:13	56.9	43.0	0.0	0.1	128.0	129.0	-15.9	-15.7
GUAD0184	8/24/2020 15:24	36.3	41.0	0.1	22.6	118.0	122.0	-32.9	-33.0
GUAD0185	8/29/2020 17:35	53.8	45.3	0.7	0.2	128.0	129.0	-0.3	-0.3
GUAD0186	8/26/2020 9:34	44.6	38.2	0.9	16.3	124.0	124.0	-16.9	-17.1
GUAD0187	8/29/2020 16:40	56.6	43.3	0.0	0.1	123.0	123.0	-37.4	-37.4
GUAD0191	Offline For Filling								
GUAD0198	8/26/2020 12:14	40.1	34.1	0.8	25.0	120.0	120.0	-2.9	-2.4
GUAD0199	8/26/2020 10:55	45.2	37.4	0.0	17.4	120.0	120.0	-14.7	-12.7
GUAD0200	8/29/2020 15:49	53.0	41.0	0.4	5.6	127.0	127.0	-35.8	-35.7
GUAD0201	8/26/2020 11:02	53.9	42.9	0.0	3.2	111.0	111.0	-30.9	-21.9
GUAD0202	8/26/2020 11:27	29.2	30.7	0.0	40.1	110.0	110.0	-1.3	-1.4
GUAD0203	8/29/2020 14:55	40.0	31.7	4.9	23.4	104.0	104.0	-32.4	-31.1
GUAD0204	8/26/2020 11:07	48.4	42.2	0.0	9.4	115.0	115.0	-24.9	-22.6
GUAD0205	8/29/2020 16:27	48.9	42.1	0.0	9.0	130.0	131.0	-0.5	-0.5
GUAD0207	8/26/2020 10:49	36.7	35.3	0.0	28.0	128.0	128.0	-1.0	-1.1
GUAD0208	8/26/2020 10:33	42.7	40.4	0.0	16.9	120.0	110.0	-0.3	-0.1
GUAD0208	8/26/2020 10:35	50.9	44.3	0.0	4.8	120.0	120.0	-0.5	-0.3
GUAD0209	8/6/2020 13:50	35.4	38.3	0.0	26.3	130.0	130.0	-0.3	-0.2
GUAD0209	8/6/2020 14:05	CO 0 ppm							
GUAD0209	8/26/2020 10:24	42.5	40.8	0.0	16.7	110.0	110.0	-0.2	-0.2
GUAD0211	8/26/2020 10:11	39.8	35.7	0.0	24.5	90.0	90.0	-0.1	-0.1
GUAD0213	8/26/2020 12:04	56.4	43.4	0.1	0.1	134.0	134.0	-2.3	-2.5
GUAD0214	8/26/2020 11:39	42.1	35.1	0.0	22.8	120.0	120.0	-0.8	-0.8
GUAD0215	8/26/2020 9:29	48.7	40.9	0.0	10.4	125.0	125.0	-0.8	-0.8
GUAD0216	8/29/2020 16:20	49.5	43.6	0.0	6.9	132.0	132.0	-0.2	-0.2
GUAD0217	8/26/2020 9:48	52.4	44.1	0.0	3.5	127.0	127.0	-1.4	-2.0
GUAD0218	8/24/2020 15:59	56.4	43.2	0.0	0.4	118.0	119.0	-0.5	-0.8
GUAD0219	8/29/2020 13:01	47.2	39.3	0.0	13.5	102.0	103.0	-0.1	-0.1
GUAD0220	8/24/2020 15:36	47.3	41.1	1.6	10.0	124.0	124.0	-17.7	-22.1
GUAD0221	8/29/2020 13:05	49.5	39.0	0.0	11.5	122.0	122.0	-1.2	-1.1
GUAD0222	8/28/2020 14:27	39.9	32.8	0.0	27.3	113.0	113.0	-0.1	-0.1
GUAD0223	8/28/2020 14:23	47.0	36.1	0.1	16.8	127.0	127.0	-0.6	-0.7
GUAD0224	8/24/2020 13:46	36.7	34.0	0.4	28.9	114.0	114.0	-0.1	-0.1
GUAD0225	8/26/2020 10:07	45.9	37.4	0.0	16.7	110.0	110.0	-1.0	-1.0
GUAD0226	8/24/2020 14:34	50.6	41.9	0.1	7.4	119.0	118.0	-26.6	-27.1

GUAD0227	8/26/2020 10:04	40.8	37.9	0.0	21.3	110.0	108.0	-2.8	-1.9
GUAD0228	8/26/2020 10:17	30.3	33.3	0.0	36.4	100.0	100.0	-0.3	-0.3
GUAD0230	8/28/2020 14:32	48.6	37.6	0.0	13.8	116.0	116.0	-0.6	-0.6
GUADH11L	8/29/2020 16:48	58.7	41.0	0.1	0.2	86.0	86.0	-2.1	-2.2
GUADH12L	8/29/2020 17:04	29.7	18.9	8.8	42.6	84.0	84.0	-1.9	-1.9

Wells 114, 122, 134, 135, 149, 151, 152, 154, 156, 158, 161, 162, 180, 181, 182, 185, 186, 188, 189, 207, and 215. Horizontal Leachate Collectors H11L, H12L are approved for less than continuous operation (LTCO), and may operate at up to 15.0 percent oxygen.

There are 90 total collectors (88 vertical wells and 2 horizontal wells) at GRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

GCCS = Gas Collection and Control System

Guadalupe Recycling & Disposal Facility, San Jose, CA

Wellfield Monitoring Report -September 10, 14, 16, 17, 21 and 22, 2020

Device Name	Date Time	CH4 (Methane) (%)	CO2 (Carbon Dioxide)(%)	O2 (Oxygen)(%)	Balance Gas(%)	Initial Temperature(oF)	Adjusted Temperature(oF)	Initial Static Pressure("H2O)	Adjusted Static Pressure("H2O)
GDLC0188	9/14/2020 14:15	46.4	40.5	0	13.1	139	139	-26.1	-25.8
GDLC0189	9/14/2020 14:07	32.5	34	0	33.5	138	138	-1.6	-1.6
GDLC0190	9/17/2020 17:04	46.2	40	0	13.8	120	120	-1.9	-1.9
GDLC0191	9/11/2020 14:31	27.5	37.9	0	34.6	114	114	-22	-5
GDLC0192	9/11/2020 14:14	49.8	48.2	0	2	124	124	-4.6	-4.4
GDLC0193	9/16/2020 14:36	40.9	38.9	0	20.2	128	128	-1.1	-0.1
GDLC0196	9/14/2020 14:43	36.3	32.5	0.1	31.1	109	109	-4.3	-2
GDLC0197	9/16/2020 13:40	45.6	37	0.1	17.3	125	125	-0.5	-0.5
GDLC0232	9/14/2020 14:54	52.5	40.9	0	6.6	109	109	-0.2	-0.3
GDLC0233	9/14/2020 14:39	23.7	25	3.6	47.7	106	104	-1	-0.9
GDLC0234	9/14/2020 14:00	41.3	39.2	0	19.5	117	117	-0.2	-0.2
GDLC0234	9/14/2020 14:01	41.3	39.2	0	19.5	117	117	-0.2	0.00
GDLC0234	9/21/2020 16:39	48	39.2	0	12.8	115	115	-0.5	-0.5
GDLC0235	9/11/2020 14:18	47.3	49	0	3.7	119	119	-16.2	-12.2
GDLC0236	9/16/2020 14:56	45.8	40.3	0	13.9	128	128	-0.6	-0.6
GDLC0237	Offline for filling								
GDLC0238	9/14/2020 13:34	26.2	32.5	0.1	41.2	111	111	-0.4	-0.5
GDLC0238	9/14/2020 13:37	26.2	32.5	0.1	41.2	111	111	-0.4	-0.1
GDLC0239	9/10/2020 15:41	26.2	30.7	0.1	43	117	117	-0.6	-0.3
GDLC0240	9/10/2020 16:04	46.8	41.3	0.1	11.8	115	115	-5.6	-5.4
GDLC0241	9/10/2020 16:20	52	47.7	0	0.3	121	121	-3	-3.5
GDLC0242	9/10/2020 16:08	53.8	46.1	0	0.1	115	115	-35.9	-36
GDLC0243	9/10/2020 16:15	48.3	48.1	0	3.6	102	104	-0.1	-0.1
GDLC0244	9/14/2020 13:41	35.7	36.4	0.1	27.8	107	107	0.00	-0.1
GUAD0062	9/10/2020 14:34	47.3	36.9	0	15.8	95	95	-1.6	-1.7
GUAD0065	9/10/2020 14:05	48.1	39.3	0	12.6	117	117	-35.3	-35.4
GUAD0066	9/10/2020 14:01	42.8	35.4	0	21.8	103	103	-3.3	-3
GUAD0081	9/21/2020 15:36	48.3	38.3	0	13.4	112	113	-22	-22
GUAD0082	9/21/2020 15:41	47.8	34.1	0.2	17.9	105	105	-9.1	-9.5
GUAD0112	9/10/2020 14:20	45.4	37.2	0	17.4	126	126	-0.3	-0.6
GUAD0114	9/21/2020 15:26	50.1	38.7	0	11.2	132	132	-2.9	-2.9
GUAD0122	9/17/2020 14:41	55.2	42	0	2.8	133	13	-30.5	-30.7
GUAD0124	9/11/2020 14:27	56.3	43.6	0	0.1	125	125	-26.2	-25.5
GUAD0129	9/10/2020 16:32	58.3	41.6	0	0.1	103	103	-30.3	-30.2
GUAD0131	9/16/2020 13:19	57.5	42.3	0	0.2	114	114	-34.4	-34.6
GUAD0134	9/21/2020 13:59	45.1	36.6	0.1	18.2	125	124	-1.5	-1.3
GUAD0135	9/10/2020 15:36	52.2	40.7	0	7.1	130	128	-1.9	-2.2
GUAD0138	9/10/2020 13:56	50.7	35.5	0	13.8	88	88	-0.1	-0.1
GUAD0142	9/10/2020 14:27	47.9	37.4	0	14.7	106	105	-5	-5
GUAD0146	9/21/2020 16:31	57.9	41.7	0.1	0.3	132	133	-28.8	-29.6
GUAD0147	9/21/2020 14:35	49.1	37.3	0.1	13.5	119	119	-7	-7
GUAD0149	Offline for filling								
GUAD0151	9/14/2020 14:10	52.6	35.5	0	11.9	138	138	-23	-23

GUAD0152	9/17/2020 14:33	57.1	42.3	0.1	0.5	132	132	-27.9	-27.9
GUAD0154	9/16/2020 14:53	56.9	43	0	0.1	138	139	-14.5	-13.8
GUAD0156	9/17/2020 16:22	50.2	37.8	0	12	123	123	-9.6	-9.6
GUAD0158	9/17/2020 16:32	46.6	37.2	0.2	16	129	129	-16.7	-16.6
GUAD0161	9/21/2020 14:59	49	38	0	13	139	138	-28.4	-29.9
GUAD0162	9/21/2020 15:02	53.2	40.1	0	6.7	139	139	-35.1	-35.2
GUAD0172	9/21/2020 16:03	58.5	40.2	1.2	0.1	113	113	-2.1	-2.2
GUAD0173	9/21/2020 16:09	52.2	39.2	0	8.6	121	122	-0.3	-0.3
GUAD0176	9/14/2020 14:49	50.7	40.9	0.2	8.2	105	105	-0.6	-0.6
GUAD0177	9/17/2020 16:52	51	40.5	0	8.5	128	128	-17.3	-21.7
GUAD0178	9/14/2020 15:01	56.6	43.1	0.1	0.2	119	112	-30.3	-26.3
GUAD0179	9/17/2020 16:13	44.3	36.3	0	19.4	111	111	-0.2	-0.2
GUAD0180	9/17/2020 14:53	54.6	42.9	0.1	2.4	129	129	-35.2	-35.4
GUAD0181	9/17/2020 15:03	55.1	44.7	0.1	0.1	139	139	-21.3	-21.3
GUAD0183	9/11/2020 14:23	56.1	43.8	0	0.1	128	128	-9	-8.7
GUAD0184	9/10/2020 16:38	33.6	39.8	0	26.6	125	125	-17.7	-17.7
GUAD0185	9/16/2020 14:47	57.2	42.6	0	0.2	133	134	-1.1	-0.8
GUAD0186	9/16/2020 14:30	51.3	41.7	0.1	6.9	129	129	-10.3	-13.8
GUAD0187	9/11/2020 14:10	57.2	42.5	0.1	0.2	123	123	-33.3	-33.3
GUAD0198	9/17/2020 16:19	50.1	39	0.2	10.7	117	117	-1	-1
GUAD0199	9/14/2020 15:07	52.2	39.1	0.6	8.1	129	129	-45.3	-4.9
GUAD0200	9/17/2020 14:29	55.5	42	0.1	2.4	128	128	-32	-32
GUAD0201	9/14/2020 13:57	54.9	43.2	0.3	1.6	124	124	-26.7	-26.4
GUAD0202	9/17/2020 16:27	38.1	33.8	0	28.1	117	113	-0.7	-0.6
GUAD0203	9/21/2020 14:20	50.1	34.1	4	11.8	106	106	-29.9	-29.9
GUAD0203	9/21/2020 14:22	50.1	34.1	4	11.8	106	106	-29.9	-30.1
GUAD0204	9/14/2020 14:24	51.4	42.3	0	6.3	132	132	-20	-20
GUAD0205	9/17/2020 16:58	34.6	36	0	29.4	134	134	-0.7	-0.3
GUAD0207	9/16/2020 15:24	26.9	30.6	0	42.5	133	132	-0.3	-0.1
GUAD0208	9/16/2020 15:20	32.5	35	0	32.5	127	127	-0.1	-0.1
GUAD0209	9/22/2020 16:28	52.3	47.5	0.1	0.1	101	122	-0.1	-0.1
GUAD0211	9/17/2020 14:57	37.8	35.9	0	26.3	119	119	-0.4	-0.2
GUAD0213	9/22/2020 16:19	55.6	44	0.2	0.2	113	118	-2.2	-3.4
GUAD0214	9/15/2020 11:06	44.3	35.9	0.1	19.7	128	128	-1	-0.7
GUAD0215	9/16/2020 14:25	49.6	42.5	0.1	7.8	132	132	-0.8	-0.8
GUAD0216	9/17/2020 17:10	49.8	43.4	0	6.8	130	130	-0.2	-0.2
GUAD0217	9/11/2020 14:37	39.5	40.4	0	20.1	128	128	-2.1	-1.6
GUAD0217	9/16/2020 14:41	39.7	40.1	0	20.2	127	124	-1.3	-1.1
GUAD0218	9/11/2020 14:41	32.4	36.1	0	31.5	126	126	-1.5	-0.7
GUAD0219	9/16/2020 13:05	52.6	40.7	0	6.7	120	120	-1.5	-1.6
GUAD0220	9/11/2020 14:52	52.3	43.8	0.2	3.7	123	123	-20.3	-21.1
GUAD0221	9/11/2020 14:47	52	39.1	0.2	8.7	122	122	-1	-1.2
GUAD0221	9/16/2020 13:13	52.4	41.5	0	6.1	114	114	-0.1	-0.1
GUAD0222	9/10/2020 15:02	37	33.4	0	29.6	113	112	-0.2	-0.1
GUAD0223	9/10/2020 15:07	46.1	38.1	0	15.8	126	126	-0.5	-0.5
GUAD0224	9/10/2020 15:32	25.8	28.9	0.1	45.2	111	111	-0.2	-0.1

GUAD0225	9/10/2020 14:14	47.3	38.2	0	14.5	122	122	-0.6	-0.6
GUAD0226	9/10/2020 15:53	50.2	41.6	0.4	7.8	121	121	-26.2	-26.2
GUAD0227	9/10/2020 14:10	41.1	37.5	0	21.4	120	120	-1.2	-0.9
GUAD0228	9/21/2020 14:06	30	31.3	0.1	38.6	111	112	-0.2	-0.3
GUAD0230	9/10/2020 14:55	45.1	37.7	0.4	16.8	115	115	-0.6	-0.5
GUAD0230	9/10/2020 14:57	45.1	37.7	0.4	16.8	115	115	-0.6	-0.5
GUADH11L	9/21/2020 15:30	59.2	37.8	0.3	2.7	90	90	-1.3	-1.5
GUADH12L	9/21/2020 15:49	57.6	31.8	0.9	9.7	100	100	-2.3	-2.4

Wells 114, 122, 134, 135, 149, 151, 152, 154, 156, 158, 161, 162, 180, 181, 182, 185, 186, 188, 189, 207, and 215. Horizontal Leachate Collectors H11L, H12L are approved for less than continuous operation (LTCO), and may operate at up to 15.0 percent oxygen.
There are 90 total collectors (88 vertical wells and 2 horizontal wells) at GRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

GCCS = Gas Collection and Control System

APPENDIX K

WELLFIELD DEVIATION LOGS

Guadalupe Recycling & Disposal Facility, San Jose, CA
Wellfield Deviation Report
April 1, 2020 - September 30, 2020

REPORT PREPARED BY: Rajan Phadnis
UPDATED DATE: 10/1/2020
LFG MONITORING DEVICE: GEM
MODEL: 5000
DATE LAST CALIBRATED: Daily

Wellhead ID. Number	Date Time	Gas Composition (% by volume)				Initial Temperature(oF)	Adjusted Temperature(oF)	Initial Static Pressure ("H_2O)	Adjusted Static Pressure ("H_2O)	Comments	Duration of Exceedance As of the End of Reporting Period (Days)
		CH_4	CO_2	O_2	Balance						
GDLC0192	3/17/2020 11:04	57.9	42	0	0.1	56	56	0.3	0.3	NSPS/EG CAI;Adjusted for Odor/SEM;Pinched	
GDLC0192	4/16/2020 15:09	15.5	34.9	10.9	38.7	74.0	74.0	-0.1	-0.1	NSPS/EG CAI;Pinched	30
GDLC0192	5/1/2020 12:19	41.2	54.6	1.3	2.9	79.2	79.4	-0.2	-0.2	NSPS/EG CAI;Fully Open	15
Well 192 had oxygen exceedance during initial monitoring in April 2020. Adjustments were made and exceedance was corrected. New lateral was installed in June 2020.											
GUAD0178	4/17/2020 13:26	17	11.9	15.5	55.6	60.0	60.0	-40.2	-37	NSPS/EG CAI;Dec. Flow/Vac.;Surging	
GUAD0178	4/17/2020 13:30	17	11.9	15.5	55.6	60.0	60.0	-40.2	-37.1	NSPS/EG CAI;Barely Open;Dec. Flow/Vac.	
GUAD0178	4/22/2020 11:51	46.9	33.6	1.8	17.7	94.5	94.6	-37.01	-36.9	NSPS/EG CAI;Surging	5
Well 178 had oxygen exceedance during initial monitoring in April 2020. Adjustments were made and exceedance was corrected.											
GDLC0238	4/16/2020 14:47	52.3	41.2	0	6.5	106.2	107	0.04	-0.01	NSPS/EG CAI;Inc. Flow/Vac.;Surging	<1
Well 238 had pressure exceedance during initial monitoring in April 2020. Adjustments were made and exceedance was corrected.											
GUAD0129	6/9/2020 13:52	61.7	38.3	0.0	0.0	101.9	101.9	3.6	3.5	NSPS/EG CAI;Pinched	
GUAD0129	6/9/2020 14:08	61.2	37.7	0.0	1.1	90.8	90.5	3.1	3.1	NSPS/EG CAI	
GUAD0129	6/24/2020 16:46	60.5	39.5	0.0	0.0	102.0	102.0	8.9	8.9	NSPS/EG CAI;Pinched	
GUAD0129	6/26/2020 13:05	59.5	40.2	0.3	0.0	102.0	102.3	-25.8	-26.2	Fully Open	17
Well 129 had pressure exceedance during initial monitoring in June 2020. New lateral was installed and exceedance was cleared.											
GUAD0131	4/17/2020 10:17	57.8	42.1	0.0	0.1	109.0	109.0	1.4	1.4	NSPS/EG CAI;Pinched	
GUAD0131	4/30/2020 15:34	57	43	0.0	0.0	80.3	80.3	1.27	1.28	NSPS/EG CAI;Pinched	
GUAD0131	5/12/2020 15:13	57.1	42.9	0.0	0.0	107.6	107.8	1.4	1.4	NSPS/EG CAI;Pinched	
GUAD0131	6/29/2020 14:23	58.5	41.5	0.0	0.0	111.5	111.5	0.06	0.09	NSPS/EG CAI;Fully Open;Pinched	
GUAD0131	7/1/2020 15:09	57.5	42.4	0.0	0.1	112.4	112.4	-34.70	-34.72	NSPS/EG CAI;Fully Open	
GUAD0131	7/1/2020 15:30	NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)-NEW JUMPER INSTALLED								NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)	75
Well 131 had pressure exceedance during initial monitoring in April 2020. New lateral was installed in July 2020 and exceedance was corrected.											
GUAD0184	4/16/2020 14:38	57.1	42.8	0.0	0.1	107.0	107.0	8.2	8.2	NSPS/EG CAI;Pinched	
GUAD0184	4/16/2020 14:42	56.9	43	0.0	0.1	107.0	107.0	8.4	8.4	NSPS/EG CAI;Adjusted for Odor/SEM;Pinched	
GUAD0184	5/5/2020 13:48	56.9	43.1	0.0	0.0	105.4	105.4	6.4	6.4	NSPS/EG CAI;Fully Open	
GUAD0184	6/26/2020 13:11	56.9	42.6	0.5	0.0	123.7	123.6	-28.3	-28.2	NSPS/EG CAI;Fully Open	62
Well 184 had pressure exceedance during initial monitoring in April 2020. New lateral was installed in June 2020 and exceedance was corrected.											

Wellhead ID. Number	Date Time	Gas Composition (% by volume)				Initial Temperature(oF)	Adjusted Temperature(oF)	Initial Static Pressure ("H_2O)	Adjusted Static Pressure ("H_2O)	Comments	Duration of Exceedance As of the End of Reporting Period (Days)
		CH_4	CO_2	O_2	Balance						
GUAD0187	4/16/2020 15:03	57.5	42.4	0.0	0.1	118	118	1.9	1.5	Fully Open	
GUAD0187	5/5/2020 13:32	57.6	42.4	0.0	0.0	117.3	117.4	1.7	1.7	NSPS/EG CAI;Fully Open;Pinched	
GUAD0187	6/25/2020 16:45	57.5	41.4	0.1	1.0	123.3	123.4	-31.6	-31.6	NSPS/EG CAI;Fully Open	100
Well 187 had pressure exceedance during initial monitoring in March, April and May 2020. New lateral was installed in June 2020 and exceedance was corrected.											
GUAD0209	5/7/2020 15:20	36.2	37.4	0.0	26.4	126.5	126.5	0.02	0.02	Barely Open;Dec. Flow/Vac.	
GUAD0209	5/8/2020 10:11	38.8	38.6	0.0	22.6	120.8	120.9	-0.04	-0.03	NSPS/EG CAI;Barely Open;Surging	1
Well 209 had pressure exceedance during initial monitoring in May 2020. Adjustments were made and exceedance was cleared.											
GUAD0185	7/29/2020 13:52	32.5	33.0	0.1	34.4	127.0	127.0	-0.10	0.00	Barely Open;Dec. Flow/Vac.	
GUAD0185	7/30/2020 10:12	31.7	31.3	0.1	36.9	122.0	122.0	-0.10	-0.10	NSPS/EG CAI;Barely Open	1
Well 185 had pressure exceedance during initial monitoring in July 2020. Adjustments were made and exceedance was cleared.											
GUAD0207	7/23/2020 16:26	40.4	37.7	0.0	21.9	132.0	132.0	0.00	-0.1	NSPS/EG CAI;Inc. Flow/Vac.;Barely Open	<1
Well 207 had pressure exceedance during initial monitoring in July 2020. Adjustments were made and exceedance was cleared.											
GUAD0209	7/23/2020 15:07	30.6	34.6	0.0	34.8	132.0	132.0	-0.10	-0.10	Barely Open;Dec. Flow/Vac.	
GUAD0209	7/24/2020 15:26	CO was 0 ppm									
GUAD0209	7/24/2020 15:30	43.7	42.9	0.1	13.3	114.0	123.0	-0.1	0.00	NSPS/EG CAI;Dec. Flow/Vac.	1
Well 209 had temperature exceedance during initial monitoring in July 2020. CO was below 100 ppm.											
GUAD0209	7/24/2020 15:30	43.7	42.9	0.1	13.3	114.0	123.0	-0.1	0.00	NSPS/EG CAI;Dec. Flow/Vac.	
GUAD0209	8/6/2020 13:50	35.4	38.3	0.0	26.3	130.0	130.0	-0.3	-0.2	NSPS/EG CAI;Barely Open	13
Well 209 had pressure exceedance during monitoring in July 2020. Adjustments were made and exceedance was cleared											
GDLC0244	9/14/2020 13:41	35.7	36.4	0.1	27.8	107.0	107.0	0.0	-0.1	Barely Open;No Adj. Made	1
Well 244 had pressure exceedance during initial monitoring in September 2020. Adjustments were made and exceedance was cleared											
GDLC0234	9/14/2020 14:01	41.3	39.2	0.0	19.5	117.0	117.0	-0.2	0.0	Barely Open;Surging	
GDLC0234	9/21/2020 16:39	48	39.2	0.0	12.8	115.0	115.0	-0.5	-0.5	No Adj. Made	7
Well 234 had pressure exceedance during initial monitoring in September 2020.											

%= percent
in. w.c.= inches in water column
NSPS= New Source Performance Standards
EG CAI= Emissions Guidelines Corrective Action Initiated
EG CAC= Emissions Guidelines Corrective Action Completed
°F = degrees Fahrenheit

APPENDIX L

MONTHLY LANDFILL GAS FLOW RATES

April 1, 2020 - September 30, 2020 SAR MONTHLY LFG Input to Flare (A-9)
Guadalupe Recycling & Disposal Facility, San Jose, CA

A-9 Old Enclosed Flare

Month	Total Available Runtime (hours)	Total Downtime (hours)	Total Runtime (hours)	Average Flow (scfm)	Average CH_4 (%)*	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Total MMBTU
April 2020	720.00	703.73	16.27	930	46.4	894,559	414,762	420
May 2020	744.00	715.27	28.73	1,063	46.4	1,657,220	768,370	778
June 2020	720.00	719.93	0.07	2,539	47.2	2,647	1,227	1
July 2020	744.00	744.00	0.00	0	49.9	0	0	0
August 2020	744.00	718.73	25.27	1,433	49.9	2,302,793	1,147,943	1,163
September 2020	720.00	235.33	484.67	818	49.9	22,419,732	11,176,248	11,322
April 1, 2020 - September 30, 2020 Totals/Avg:	**4,392.00**	**3,837.00**	**555.00**	**1,131**	**48.2**	**27,276,950**	**13,508,550**	**13,684**
2019-2020 TOTALS/ AVERAGE :	**8,784.00**	**8,227.80**	**556.20**	**1,305**	**47.3**	**27,352,262**	**13,543,469**	**13,720**

Notes:

[1] 721 hours available in November 2019 due to Daylight Saving Time

[2] 743 hours available in March 2020 due to Daylight Saving Time.

*Starting July 2019 methane content determined from flare A-9 May 8, 2019 source test.Starting June 24, 2020 methane content determined from flare A-9 April 29, 2020 source test.

scfm= standard cubic feet per minute

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

Guadalupe Recycling & Disposal Facility

San Jose, CA

Heat Input Rate Flare A-9

MONTH: **April-20**

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
4/1/2020	0.0	46.4	0	0	0	1,013.0	0
4/2/2020	0.0	46.4	0	0	0	1,013.0	0
4/3/2020	0.0	46.4	0	0	0	1,013.0	0
4/4/2020	0.0	46.4	0	0	0	1,013.0	0
4/5/2020	0.0	46.4	0	0	0	1,013.0	0
4/6/2020	0.0	46.4	0	0	0	1,013.0	0
4/7/2020	0.0	46.4	0	0	0	1,013.0	0
4/8/2020	0.0	46.4	0	0	0	1,013.0	0
4/9/2020	0.0	46.4	0	0	0	1,013.0	0
4/10/2020	0.0	46.4	0	0	0	1,013.0	0
4/11/2020	0.0	46.4	0	0	0	1,013.0	0
4/12/2020	0.0	46.4	0	0	0	1,013.0	0
4/13/2020	0.0	46.4	0	0	0	1,013.0	0
4/14/2020	0.0	46.4	0	0	0	1,013.0	0
4/15/2020	0.0	46.4	0	0	0	1,013.0	0
4/16/2020	0.0	46.4	0	0	0	1,013.0	0
4/17/2020	0.0	46.4	0	0	0	1,013.0	0
4/18/2020	0.0	46.4	0	0	0	1,013.0	0
4/19/2020	0.0	46.4	0	0	0	1,013.0	0
4/20/2020	0.0	46.4	0	0	0	1,013.0	0
4/21/2020	0.0	46.4	0	0	0	1,013.0	0
4/22/2020	0.8	46.4	961	44,193	20,490	1,013.0	21
4/23/2020	2.8	46.4	969	162,769	75,468	1,013.0	76
4/24/2020	0.0	46.4	0	0	0	1,013.0	0
4/25/2020	0.0	46.4	0	0	0	1,013.0	0
4/26/2020	0.0	46.4	0	0	0	1,013.0	0
4/27/2020	0.0	46.4	0	0	0	1,013.0	0
4/28/2020	5.2	46.4	858	266,121	123,387	1,013.0	125
4/29/2020	7.5	46.4	932	421,476	195,418	1,013.0	198
4/30/2020	0.0	46.4	0	0	0	1,013.0	0
Totals/ Average:	**16.3**	**46.4**	**930**	**894,559**	**414,762**	**1013.0**	**420**
						Maximum:	**198**

Notes:

*Methane content determined from the the May 8, 2019 source test.

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

Guadalupe Recycling & Disposal Facility

San Jose, CA

Heat Input Rate Flare A-9

MONTH: **May-20**

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
5/1/2020	0.0	46.4	0	0	0	1,013.0	0
5/2/2020	0.0	46.4	0	0	0	1,013.0	0
5/3/2020	0.0	46.4	0	0	0	1,013.0	0
5/4/2020	0.0	46.4	0	0	0	1,013.0	0
5/5/2020	0.0	46.4	0	0	0	1,013.0	0
5/6/2020	0.0	46.4	0	0	0	1,013.0	0
5/7/2020	0.0	46.4	0	0	0	1,013.0	0
5/8/2020	0.0	46.4	0	0	0	1,013.0	0
5/9/2020	0.0	46.4	0	0	0	1,013.0	0
5/10/2020	0.0	46.4	0	0	0	1,013.0	0
5/11/2020	0.0	46.4	0	0	0	1,013.0	0
5/12/2020	0.0	46.4	0	0	0	1,013.0	0
5/13/2020	0.0	46.4	0	0	0	1,013.0	0
5/14/2020	0.0	46.4	0	0	0	1,013.0	0
5/15/2020	0.0	46.4	0	0	0	1,013.0	0
5/16/2020	0.0	46.4	0	0	0	1,013.0	0
5/17/2020	0.0	46.4	0	0	0	1,013.0	0
5/18/2020	0.0	46.4	0	0	0	1,013.0	0
5/19/2020	0.0	46.4	0	0	0	1,013.0	0
5/20/2020	0.0	46.4	0	0	0	1,013.0	0
5/21/2020	3.7	46.4	1,371	301,596	139,835	1,013.0	142
5/22/2020	0.0	46.4	0	0	0	1,013.0	0
5/23/2020	0.0	46.4	0	0	0	1,013.0	0
5/24/2020	0.0	46.4	0	0	0	1,013.0	0
5/25/2020	0.0	46.4	0	0	0	1,013.0	0
5/26/2020	0.0	46.4	0	0	0	1,013.0	0
5/27/2020	12.1	46.4	1,120	811,049	376,043	1,013.0	381
5/28/2020	13.0	46.4	698	544,574	252,492	1,013.0	256
5/29/2020	0.0	46.4	0	0	0	1,013.0	0
5/30/2020	0.0	46.4	0	0	0	1,013.0	0
Totals/ Average:	**28.7**	**46.4**	**1063**	**1,657,220**	**768,370**	**1013.0**	**778**
						Maximum:	**381**

Notes:

*Methane content determined from the the May 8, 2019 source test.

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

Guadalupe Recycling & Disposal Facility

San Jose, CA

Heat Input Rate Flare A-9

MONTH: **June-20**

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
6/1/2020	0.0	46.4	0	0	0	1,013.0	0
6/2/2020	0.0	46.4	0	0	0	1,013.0	0
6/3/2020	0.0	46.4	0	0	0	1,013.0	0
6/4/2020	0.0	46.4	0	0	0	1,013.0	0
6/5/2020	0.0	46.4	0	0	0	1,013.0	0
6/6/2020	0.0	46.4	0	0	0	1,013.0	0
6/7/2020	0.0	46.4	0	0	0	1,013.0	0
6/8/2020	0.0	46.4	0	0	0	1,013.0	0
6/9/2020	0.0	46.4	0	0	0	1,013.0	0
6/10/2020	0.0	46.4	0	0	0	1,013.0	0
6/11/2020	0.1	46.4	662	2,647	1,227	1,013.0	1.2
6/12/2020	0.0	46.4	0	0	0	1,013.0	0
6/13/2020	0.0	46.4	0	0	0	1,013.0	0
6/14/2020	0.0	46.4	0	0	0	1,013.0	0
6/15/2020	0.0	46.4	0	0	0	1,013.0	0
6/16/2020	0.0	46.4	0	0	0	1,013.0	0
6/17/2020	0.0	46.4	0	0	0	1,013.0	0
6/18/2020	0.0	46.4	0	0	0	1,013.0	0
6/19/2020	0.0	46.4	0	0	0	1,013.0	0
6/20/2020	0.0	46.4	0	0	0	1,013.0	0
6/21/2020	0.0	46.4	0	0	0	1,013.0	0
6/22/2020	0.0	46.4	0	0	0	1,013.0	0
6/23/2020	0.0	46.4	0	0	0	1,013.0	0
6/24/2020	0.0	49.9	0	0	0	1,013.0	0
6/25/2020	0.0	49.9	0	0	0	1,013.0	0
6/26/2020	0.0	49.9	0	0	0	1,013.0	0
6/27/2020	0.0	49.9	0	0	0	1,013.0	0
6/28/2020	0.0	49.9	0	0	0	1,013.0	0
6/29/2020	0.0	49.9	0	0	0	1,013.0	0
6/30/2020	0.0	49.9	0	0	0	1,013.0	0
Totals/ Average:	**0.1**	**47.2**	**662**	**2,647**	**1,227**	**1013.0**	**1**
						Maximum:	**1**

Notes:

*Methane content determined from the the May 8, 2019 source test and April 29, 2020 source test.

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

Guadalupe Recycling & Disposal Facility

San Jose, CA

Heat Input Rate Flare A-9

MONTH: **July-20**

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
7/1/2020	0.0	49.9	0	0	0	1,013.0	0
7/2/2020	0.0	49.9	0	0	0	1,013.0	0
7/3/2020	0.0	49.9	0	0	0	1,013.0	0
7/4/2020	0.0	49.9	0	0	0	1,013.0	0
7/5/2020	0.0	49.9	0	0	0	1,013.0	0
7/6/2020	0.0	49.9	0	0	0	1,013.0	0
7/7/2020	0.0	49.9	0	0	0	1,013.0	0
7/8/2020	0.0	49.9	0	0	0	1,013.0	0
7/9/2020	0.0	49.9	0	0	0	1,013.0	0
7/10/2020	0.0	49.9	0	0	0	1,013.0	0
7/11/2020	0.0	49.9	0	0	0	1,013.0	0
7/12/2020	0.0	49.9	0	0	0	1,013.0	0
7/13/2020	0.0	49.9	0	0	0	1,013.0	0
7/14/2020	0.0	49.9	0	0	0	1,013.0	0
7/15/2020	0.0	49.9	0	0	0	1,013.0	0
7/16/2020	0.0	49.9	0	0	0	1,013.0	0
7/17/2020	0.0	49.9	0	0	0	1,013.0	0
7/18/2020	0.0	49.9	0	0	0	1,013.0	0
7/19/2020	0.0	49.9	0	0	0	1,013.0	0
7/20/2020	0.0	49.9	0	0	0	1,013.0	0
7/21/2020	0.0	49.9	0	0	0	1,013.0	0
7/22/2020	0.0	49.9	0	0	0	1,013.0	0
7/23/2020	0.0	49.9	0	0	0	1,013.0	0
7/24/2020	0.0	49.9	0	0	0	1,013.0	0
7/25/2020	0.0	49.9	0	0	0	1,013.0	0
7/26/2020	0.0	49.9	0	0	0	1,013.0	0
7/27/2020	0.0	49.9	0	0	0	1,013.0	0
7/28/2020	0.0	49.9	0	0	0	1,013.0	0
7/29/2020	0.0	49.9	0	0	0	1,013.0	0
7/30/2020	0.0	49.9	0	0	0	1,013.0	0
7/31/2020	0.0	49.9	0	0	0	1,013.0	0
Totals/ Average:	**0.0**	**49.9**	**0**	**0**	**0**	**1013.0**	**0**
						Maximum:	**0**

Notes:

*Methane content determined from the the April 29, 2020 source test.

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet
MMBTU= million British thermal units
LFG= landfill gas
CH_4= methane

Guadalupe Recycling & Disposal Facility

San Jose, CA

Heat Input Rate Flare A-9

MONTH: **August-20**

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
8/1/2020	0.0	49.9	0	0	0	1,013.0	0
8/2/2020	0.0	49.9	0	0	0	1,013.0	0
8/3/2020	0.0	49.9	0	0	0	1,013.0	0
8/4/2020	0.0	49.9	0	0	0	1,013.0	0
8/5/2020	0.0	49.9	0	0	0	1,013.0	0
8/6/2020	0.0	49.9	0	0	0	1,013.0	0
8/7/2020	0.0	49.9	0	0	0	1,013.0	0
8/8/2020	0.0	49.9	0	0	0	1,013.0	0
8/9/2020	0.0	49.9	0	0	0	1,013.0	0
8/10/2020	0.1	49.9	1,244	9,949	4,959	1,013.0	5
8/11/2020	0.0	49.9	0	0	0	1,013.0	0
8/12/2020	14.1	49.9	1,489	1,256,334	626,283	1,013.0	634
8/13/2020	10.9	49.9	1,568	1,025,245	511,085	1,013.0	518
8/14/2020	0.0	49.9	0	0	0	1,013.0	0
8/15/2020	0.0	49.9	0	0	0	1,013.0	0
8/16/2020	0.0	49.9	0	0	0	1,013.0	0
8/17/2020	0.0	49.9	0	0	0	1,013.0	0
8/18/2020	0.0	49.9	0	0	0	1,013.0	0
8/19/2020	0.0	49.9	0	0	0	1,013.0	0
8/20/2020	0.0	49.9	0	0	0	1,013.0	0
8/21/2020	0.0	49.9	0	0	0	1,013.0	0
8/22/2020	0.0	49.9	0	0	0	1,013.0	0
8/23/2020	0.0	49.9	0	0	0	1,013.0	0
8/24/2020	0.0	49.9	0	0	0	1,013.0	0
8/25/2020	0.0	49.9	0	0	0	1,013.0	0
8/26/2020	0.0	49.9	0	0	0	1,013.0	0
8/27/2020	0.0	49.9	0	0	0	1,013.0	0
8/28/2020	0.0	49.9	0	0	0	1,013.0	0
8/29/2020	0.0	49.9	0	0	0	1,013.0	0
8/30/2020	0.0	49.9	0	0	0	1,013.0	0
8/31/2020	0.2	49.9	1,127	11,265	5,616	1,013.0	6
Totals/ Average:	**25.3**	**49.9**	**1433**	**2,302,793**	**1,147,943**	**1013.0**	**1,163**
						Maximum:	**634**

Notes:

*Methane content determined from the the April 29, 2020 source test.

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

Guadalupe Recycling & Disposal Facility

San Jose, CA

Heat Input Rate Flare A-9

MONTH: **September-20**

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
9/1/2020	0.0	49.9	0	0	0	1,013.0	0
9/2/2020	0.0	49.9	0	0	0	1,013.0	0
9/3/2020	0.0	49.9	0	0	0	1,013.0	0
9/4/2020	0.0	49.9	0	0	0	1,013.0	0
9/5/2020	0.0	49.9	0	0	0	1,013.0	0
9/6/2020	0.0	49.9	0	0	0	1,013.0	0
9/7/2020	0.0	49.9	0	0	0	1,013.0	0
9/8/2020	8.6	49.9	782	404,932	201,859	1,013.0	204
9/9/2020	0.0	49.9	0	0	0	1,013.0	0
9/10/2020	12.1	49.9	989	715,764	356,809	1,013.0	361
9/11/2020	24.0	49.9	824	1,186,292	591,367	1,013.0	599
9/12/2020	24.0	49.9	623	896,809	447,060	1,013.0	453
9/13/2020	24.0	49.9	560	806,374	401,978	1,013.0	407
9/14/2020	23.2	49.9	544	758,955	378,339	1,013.0	383
9/15/2020	22.8	49.9	700	958,580	477,853	1,013.0	484
9/16/2020	23.0	49.9	856	1,182,995	589,723	1,013.0	597
9/17/2020	23.6	49.9	942	1,334,333	665,166	1,013.0	674
9/18/2020	23.3	49.9	991	1,384,030	689,940	1,013.0	699
9/19/2020	24.0	49.9	839	1,208,762	602,568	1,013.0	610
9/20/2020	24.0	49.9	634	912,998	455,130	1,013.0	461
9/21/2020	21.8	49.9	516	674,312	336,145	1,013.0	341
9/22/2020	22.7	49.9	1,020	1,387,522	691,680	1,013.0	701
9/23/2020	24.0	49.9	1,600	2,303,686	1,148,389	1,013.0	1,163
9/24/2020	17.2	49.9	1,205	1,245,776	621,020	1,013.0	629
9/25/2020	24.0	49.9	0	0	0	1,013.0	0
9/26/2020	24.0	49.9	953	1,371,690	683,788	1,013.0	693
9/27/2020	24.0	49.9	705	1,014,929	505,943	1,013.0	513
9/28/2020	22.3	49.9	624	836,258	416,875	1,013.0	422
9/29/2020	24.0	49.9	647	932,392	464,798	1,013.0	471
9/30/2020	24.0	49.9	627	902,344	449,819	1,013.0	456
Totals/ Average:	**484.7**	**49.9**	**818**	**22,419,732**	**11,176,248**	**1013.0**	**11,322**
						Maximum:	**1,163**

Notes:

*Methane content determined from the the April 28, 2020 source test.

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

April 1, 2020 - September 30, 2020 SAR MONTHLY LFG Input to Flare (A-14)
Guadalupe Recycling & Disposal Facility, San Jose, CA

A-14 New Enclosed Flare

Month	Total Available Runtime (hours)	Total Downtime (hours)	Total Runtime (hours)	Average Flow (scfm)	Average CH_4 (%)*	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Total MMBTU
April 2020	720.00	23.13	696.87	2,007	45.5	83,787,865	40,190,232	38,560
May 2020	744.00	30.87	713.13	2,207	43.9	94,289,018	42,916,186	41,915
June 2020	720.00	4.60	715.40	2,181	43.9	93,604,841	41,077,080	41,611
July 2020	744.00	2.80	741.20	2,326	43.9	103,432,176	45,389,659	45,980
August 2020	744.00	31.27	712.73	2,297	43.9	98,197,857	43,092,657	43,653
September 2020	720.00	58.27	661.73	1,546	43.9	63,903,632	28,043,150	28,408
April 1, 2020 - September 30, 2020 Totals/Avg:	**4,392.00**	**150.93**	**4,241.07**	**2,094**	**44.2**	**537,215,389**	**240,708,965**	**240,127**
2019-2020 TOTALS/ AVERAGE :	**8,784.00**	**198.13**	**8,585.87**	**2,094**	**46.1**	**1,083,603,306**	**502,792,944**	**505,618**

Notes:

NA= Initial startup of A-14 flare was on November 17, 2016

[1] 721 hours available in November 2019 due to Daylight Saving Time

[2] 743 hours available in March 2020 due to Daylight Saving Time.

*Starting April 13, 2020,Methane content determined from flare A-14 February 26, 2020 source test

scfm= standard cubic feet per minute
scf= standard cubic feet
MMBTU= million British thermal units
LFG= landfill gas
CH_4= methane

Guadalupe Recycling & Disposal Facility

San Jose, CA

Heat Input Rate **Flare A-14**

MONTH: **April-20**

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
4/1/2020	24.0	48.0	2,082	2,998,029	1,438,054	1,013.0	1,457
4/2/2020	24.0	48.0	2,053	2,955,861	1,417,828	1,013.0	1,436
4/3/2020	24.0	48.0	2,060	2,966,472	1,422,917	1,013.0	1,441
4/4/2020	24.0	48.0	2,051	2,953,371	1,416,633	1,013.0	1,435
4/5/2020	24.0	48.0	2,021	2,909,662	1,395,667	1,013.0	1,414
4/6/2020	23.7	48.0	1,715	2,442,534	1,171,602	1,013.0	1,187
4/7/2020	24.0	48.0	1,365	1,966,060	943,053	1,013.0	955
4/8/2020	23.2	48.0	1,471	2,050,189	983,407	1,013.0	996
4/9/2020	24.0	48.0	1,513	2,179,231	1,045,304	1,013.0	1,059
4/10/2020	23.3	48.0	1,766	2,465,955	1,182,836	1,013.0	1,198
4/11/2020	24.0	48.0	2,038	2,934,958	1,407,801	1,013.0	1,426
4/12/2020	24.0	48.0	2,030	2,923,234	1,402,177	1,013.0	1,420
4/13/2020	24.0	43.9	2,037	2,933,568	1,287,352	1,013.0	1,304
4/14/2020	24.0	43.9	2,043	2,942,394	1,291,225	1,013.0	1,308
4/15/2020	24.0	43.9	2,069	2,980,046	1,307,748	1,013.0	1,325
4/16/2020	24.0	43.9	2,089	3,008,469	1,320,221	1,013.0	1,337
4/17/2020	24.0	43.9	2,131	3,069,182	1,346,864	1,013.0	1,364
4/18/2020	24.0	43.9	2,136	3,075,662	1,349,708	1,013.0	1,367
4/19/2020	24.0	43.9	2,140	3,081,493	1,352,267	1,013.0	1,370
4/20/2020	24.0	43.9	2,126	3,061,942	1,343,687	1,013.0	1,361
4/21/2020	24.0	43.9	2,135	3,074,529	1,349,211	1,013.0	1,367
4/22/2020	22.2	43.9	2,157	2,877,034	1,262,543	1,013.0	1,279
4/23/2020	20.4	43.9	1,730	2,120,914	930,731	1,013.0	943
4/24/2020	23.7	43.9	1,890	2,687,810	1,179,505	1,013.0	1,195
4/25/2020	24.0	43.9	2,242	3,227,909	1,416,519	1,013.0	1,435
4/26/2020	24.0	43.9	2,222	3,199,711	1,404,145	1,013.0	1,422
4/27/2020	24.0	43.9	2,212	3,185,038	1,397,706	1,013.0	1,416
4/28/2020	16.4	43.9	2,238	2,197,502	964,341	1,013.0	977
4/29/2020	15.9	43.9	2,235	2,132,082	935,632	1,013.0	948
4/30/2020	24.0	43.9	2,213	3,187,024	1,398,578	1,013.0	1,417
Totals/ Average:	**696.87**	**45.5**	**2,007**	**83,787,865**	**38,065,266**	**1013.0**	**38,560**
Notes:						**Maximum:**	**1,457**

*Methane content determined from flare A-14 February 27, 2019 and February 26, 2020 source test results.

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet
scf= standard cubic feet
MMBTU= million British thermal units
LFG= landfill gas
CH_4= methane

Guadalupe Recycling & Disposal Facility

San Jose, CA

Heat Input Rate **Flare A-14**

MONTH: **May-20**

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
5/1/2020	24.0	43.9	2,191	3,154,356	1,384,242	1,013.0	1,402
5/2/2020	24.0	43.9	2,185	3,146,834	1,380,941	1,013.0	1,399
5/3/2020	24.0	43.9	2,185	3,145,933	1,380,546	1,013.0	1,398
5/4/2020	24.0	43.9	2,175	3,131,434	1,374,183	1,013.0	1,392
5/5/2020	24.0	43.9	2,168	3,121,351	1,369,758	1,013.0	1,388
5/6/2020	24.0	43.9	2,166	3,119,748	1,369,055	1,013.0	1,387
5/7/2020	24.0	43.9	2,180	3,138,647	1,377,348	1,013.0	1,395
5/8/2020	24.0	43.9	2,181	3,141,320	1,378,521	1,013.0	1,396
5/9/2020	24.0	43.9	2,164	3,116,271	1,367,529	1,013.0	1,385
5/10/2020	24.0	43.9	2,153	3,100,657	1,360,677	1,013.0	1,378
5/11/2020	24.0	43.9	2,195	3,161,151	1,387,224	1,013.0	1,405
5/12/2020	24.0	43.9	2,230	3,210,484	1,408,873	1,013.0	1,427
5/13/2020	24.0	43.9	2,210	3,182,396	1,396,547	1,013.0	1,415
5/14/2020	24.0	43.9	2,195	3,161,303	1,387,290	1,013.0	1,405
5/15/2020	24.0	43.9	2,201	3,169,167	1,390,741	1,013.0	1,409
5/16/2020	24.0	43.9	2,206	3,175,987	1,393,734	1,013.0	1,412
5/17/2020	24.0	43.9	2,166	3,119,500	1,368,946	1,013.0	1,387
5/18/2020	24.0	43.9	2,143	3,085,269	1,353,924	1,013.0	1,372
5/19/2020	24.0	43.9	2,167	3,120,378	1,369,331	1,013.0	1,387
5/20/2020	24.0	43.9	2,196	3,162,350	1,387,750	1,013.0	1,406
5/21/2020	18.9	43.9	2,253	2,559,532	1,123,212	1,013.0	1,138
5/22/2020	24.0	43.9	2,263	3,258,461	1,429,927	1,013.0	1,449
5/23/2020	24.0	43.9	2,245	3,233,512	1,418,978	1,013.0	1,437
5/24/2020	24.0	43.9	2,242	3,228,396	1,416,733	1,013.0	1,435
5/25/2020	24.0	43.9	2,254	3,246,259	1,424,572	1,013.0	1,443
5/26/2020	24.0	43.9	2,261	3,255,152	1,428,475	1,013.0	1,447
5/27/2020	11.0	43.9	2,203	1,453,996	638,064	1,013.0	646
5/28/2020	11.2	43.9	2,378	1,598,015	701,265	1,013.0	710
5/29/2020	24.0	43.9	2,257	3,249,502	1,425,995	1,013.0	1,445
5/30/2020	24.0	43.9	2,205	3,175,739	1,393,625	1,013.0	1,412
5/31/2020	24.0	43.9	2,199	3,165,918	1,389,316	1,013.0	1,407
Totals/ Average:	**713.13**	**43.9**	**2,207**	**94,289,018**	**41,377,321**	**1013.0**	**41,915**
						Maximum:	**1,449**

Notes:

*Methane content determined from flare A-14 February 26, 2020 source test results.

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

Guadalupe Recycling & Disposal Facility

San Jose, CA

Heat Input Rate **Flare A-14**

MONTH: **June-20**

Date	Runtime (hours)	CH$_4$ (%)*	Average Flow (scfm)	Total LFG Volume (scf)	CH$_4$ Volume (scf)	Heating Value of CH$_4$ (BTU/scf)	Heat Input (MMBTU)/Day
6/1/2020	24.0	43.9	2,221	3,197,756	1,403,287	1,013.0	1,422
6/2/2020	24.0	43.9	2,234	3,216,946	1,411,708	1,013.0	1,430
6/3/2020	24.0	43.9	2,250	3,239,574	1,421,638	1,013.0	1,440
6/4/2020	24.0	43.9	2,238	3,222,099	1,413,970	1,013.0	1,432
6/5/2020	24.0	43.9	2,191	3,154,905	1,384,483	1,013.0	1,402
6/6/2020	24.0	43.9	2,166	3,119,234	1,368,829	1,013.0	1,387
6/7/2020	24.0	43.9	2,155	3,103,407	1,361,884	1,013.0	1,380
6/8/2020	24.0	43.9	2,181	3,140,387	1,378,112	1,013.0	1,396
6/9/2020	24.0	43.9	2,195	3,160,522	1,386,948	1,013.0	1,405
6/10/2020	24.0	43.9	2,179	3,137,166	1,376,698	1,013.0	1,395
6/11/2020	23.3	43.9	2,176	3,041,920	1,334,901	1,013.0	1,352
6/12/2020	24.0	43.9	2,150	3,096,170	1,358,708	1,013.0	1,376
6/13/2020	24.0	43.9	2,144	3,087,884	1,355,072	1,013.0	1,373
6/14/2020	24.0	43.9	2,149	3,094,802	1,358,107	1,013.0	1,376
6/15/2020	24.0	43.9	2,143	3,086,128	1,354,301	1,013.0	1,372
6/16/2020	24.0	43.9	2,133	3,072,003	1,348,102	1,013.0	1,366
6/17/2020	24.0	43.9	2,154	3,101,789	1,361,174	1,013.0	1,379
6/18/2020	24.0	43.9	2,172	3,127,326	1,372,380	1,013.0	1,390
6/19/2020	24.0	43.9	2,145	3,089,359	1,355,719	1,013.0	1,373
6/20/2020	24.0	43.9	2,127	3,062,774	1,344,052	1,013.0	1,362
6/21/2020	24.0	43.9	2,131	3,068,722	1,346,663	1,013.0	1,364
6/22/2020	24.0	43.9	2,137	3,077,190	1,350,379	1,013.0	1,368
6/23/2020	24.0	43.9	2,133	3,071,880	1,348,048	1,013.0	1,366
6/24/2020	24.0	43.9	2,133	3,071,288	1,347,789	1,013.0	1,365
6/25/2020	24.0	43.9	2,121	3,054,207	1,340,293	1,013.0	1,358
6/26/2020	24.0	43.9	2,188	3,151,020	1,382,778	1,013.0	1,401
6/27/2020	24.0	43.9	2,223	3,201,785	1,405,055	1,013.0	1,423
6/28/2020	24.0	43.9	2,177	3,135,349	1,375,901	1,013.0	1,394
6/29/2020	20.1	43.9	2,312	2,788,555	1,223,716	1,013.0	1,240
6/30/2020	24.0	43.9	2,384	3,432,694	1,506,386	1,013.0	1,526
Totals/ Average:	**715.40**	**43.9**	**2,181**	**93,604,841**	**41,077,080**	**1013.0**	**41,611**
						Maximum:	**1,526**

Notes:

*Methane content determined from flare A-14 February 26, 2020 source test results.

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH$_4$= methane

Guadalupe Recycling & Disposal Facility

San Jose, CA

Heat Input Rate **Flare A-14**

MONTH: **July-20**

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
7/1/2020	24.0	43.9	2,187	3,149,060	1,381,918	1,013.0	1,400
7/2/2020	24.0	43.9	1,928	2,776,122	1,218,259	1,013.0	1,234
7/3/2020	24.0	43.9	1,919	2,762,654	1,212,349	1,013.0	1,228
7/4/2020	24.0	43.9	1,935	2,785,890	1,222,546	1,013.0	1,238
7/5/2020	24.0	43.9	1,933	2,783,459	1,221,479	1,013.0	1,237
7/6/2020	23.6	43.9	2,139	3,033,359	1,331,144	1,013.0	1,348
7/7/2020	24.0	43.9	2,496	3,594,270	1,577,291	1,013.0	1,598
7/8/2020	24.0	43.9	2,486	3,579,971	1,571,017	1,013.0	1,591
7/9/2020	24.0	43.9	2,481	3,573,255	1,568,069	1,013.0	1,588
7/10/2020	24.0	43.9	2,475	3,564,135	1,564,067	1,013.0	1,584
7/11/2020	24.0	43.9	2,483	3,575,883	1,569,223	1,013.0	1,590
7/12/2020	21.6	43.9	2,475	3,202,948	1,405,566	1,013.0	1,424
7/13/2020	24.0	43.9	2,505	3,607,625	1,583,152	1,013.0	1,604
7/14/2020	24.0	43.9	2,493	3,590,332	1,575,563	1,013.0	1,596
7/15/2020	24.0	43.9	2,474	3,562,288	1,563,257	1,013.0	1,584
7/16/2020	24.0	43.9	2,480	3,571,625	1,567,354	1,013.0	1,588
7/17/2020	24.0	43.9	2,457	3,537,765	1,552,495	1,013.0	1,573
7/18/2020	24.0	43.9	2,453	3,532,064	1,549,993	1,013.0	1,570
7/19/2020	24.0	43.9	2,449	3,526,843	1,547,702	1,013.0	1,568
7/20/2020	24.0	43.9	2,430	3,498,764	1,535,380	1,013.0	1,555
7/21/2020	24.0	43.9	2,398	3,453,073	1,515,329	1,013.0	1,535
7/22/2020	24.0	43.9	2,393	3,445,318	1,511,926	1,013.0	1,532
7/23/2020	24.0	43.9	2,370	3,412,938	1,497,717	1,013.0	1,517
7/24/2020	24.0	43.9	2,340	3,369,417	1,478,618	1,013.0	1,498
7/25/2020	24.0	43.9	2,332	3,358,670	1,473,902	1,013.0	1,493
7/26/2020	24.0	43.9	2,289	3,295,614	1,446,231	1,013.0	1,465
7/27/2020	24.0	43.9	2,301	3,313,781	1,454,203	1,013.0	1,473
7/28/2020	24.0	43.9	2,292	3,300,903	1,448,552	1,013.0	1,467
7/29/2020	24.0	43.9	2,245	3,233,021	1,418,763	1,013.0	1,437
7/30/2020	24.0	43.9	2,239	3,224,425	1,414,991	1,013.0	1,433
7/31/2020	24.0	43.9	2,234	3,216,704	1,411,602	1,013.0	1,430
Totals/ Average:	**741.20**	**43.9**	**2,326**	**103,432,176**	**45,389,659**	**1013.0**	**45,980**
Notes:						**Maximum:**	**1,604**

*Methane content determined from flare A-14 February 26, 2020 source test results.

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

Guadalupe Recycling & Disposal Facility

San Jose, CA

Heat Input Rate **Flare A-14**

MONTH: **August-20**

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
8/1/2020	24.0	43.9	2,232	3,214,525	1,410,646	1,013.0	1,429
8/2/2020	24.0	43.9	2,240	3,226,070	1,415,712	1,013.0	1,434
8/3/2020	24.0	43.9	2,248	3,237,223	1,420,607	1,013.0	1,439
8/4/2020	24.0	43.9	2,240	3,226,296	1,415,812	1,013.0	1,434
8/5/2020	24.0	43.9	2,236	3,220,079	1,413,083	1,013.0	1,431
8/6/2020	24.0	43.9	2,258	3,251,281	1,426,776	1,013.0	1,445
8/7/2020	24.0	43.9	2,250	3,239,766	1,421,723	1,013.0	1,440
8/8/2020	24.0	43.9	2,263	3,259,241	1,430,269	1,013.0	1,449
8/9/2020	24.0	43.9	2,275	3,276,014	1,437,630	1,013.0	1,456
8/10/2020	22.4	43.9	2,316	3,112,061	1,365,681	1,013.0	1,383
8/11/2020	24.0	43.9	2,307	3,321,477	1,457,580	1,013.0	1,477
8/12/2020	8.9	43.9	2,225	1,188,296	521,466	1,013.0	528
8/13/2020	13.3	43.9	2,435	1,937,883	850,411	1,013.0	861
8/14/2020	24.0	43.9	2,379	3,425,686	1,503,311	1,013.0	1,523
8/15/2020	24.0	43.9	2,351	3,385,149	1,485,522	1,013.0	1,505
8/16/2020	24.0	43.9	2,327	3,351,109	1,470,584	1,013.0	1,490
8/17/2020	24.0	43.9	2,300	3,311,947	1,453,398	1,013.0	1,472
8/18/2020	24.0	43.9	2,316	3,334,365	1,463,236	1,013.0	1,482
8/19/2020	24.0	43.9	2,327	3,350,363	1,470,257	1,013.0	1,489
8/20/2020	24.0	43.9	2,352	3,386,402	1,486,072	1,013.0	1,505
8/21/2020	24.0	43.9	2,342	3,372,269	1,479,870	1,013.0	1,499
8/22/2020	24.0	43.9	2,336	3,363,535	1,476,037	1,013.0	1,495
8/23/2020	24.0	43.9	2,333	3,358,972	1,474,034	1,013.0	1,493
8/24/2020	24.0	43.9	2,332	3,358,222	1,473,705	1,013.0	1,493
8/25/2020	24.0	43.9	2,302	3,315,124	1,454,792	1,013.0	1,474
8/26/2020	24.0	43.9	2,307	3,321,613	1,457,640	1,013.0	1,477
8/27/2020	24.0	43.9	2,307	3,322,409	1,457,989	1,013.0	1,477
8/28/2020	24.0	43.9	2,283	3,287,161	1,442,521	1,013.0	1,461
8/29/2020	24.0	43.9	2,256	3,248,593	1,425,596	1,013.0	1,444
8/30/2020	24.0	43.9	2,247	3,236,149	1,420,135	1,013.0	1,439
8/31/2020	20.2	43.9	2,280	2,758,577	1,210,560	1,013.0	1,226
Totals/ Average:	**712.73**	**43.9**	**2,297**	**98,197,857**	**43,092,657**	**1013.0**	**43,653**
						Maximum:	**1,523**

Notes:

*Methane content determined from flare A-14 February 26, 2020 source test results.

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH_4= methane

Guadalupe Recycling & Disposal Facility

San Jose, CA

Heat Input Rate **Flare A-14**

MONTH: **September-20**

Date	Runtime (hours)	CH_4 (%)*	Average Flow (scfm)	Total LFG Volume (scf)	CH_4 Volume (scf)	Heating Value of CH_4 (BTU/scf)	Heat Input (MMBTU)/Day
9/1/2020	24.0	43.9	2,271	3,270,864	1,435,370	1,013.0	1,454
9/2/2020	23.2	43.9	2,263	3,150,267	1,382,447	1,013.0	1,400
9/3/2020	24.0	43.9	2,276	3,277,864	1,438,441	1,013.0	1,457
9/4/2020	24.0	43.9	2,291	3,299,302	1,447,849	1,013.0	1,467
9/5/2020	24.0	43.9	2,294	3,303,766	1,449,808	1,013.0	1,469
9/6/2020	24.0	43.9	2,195	3,160,783	1,387,062	1,013.0	1,405
9/7/2020	24.0	43.9	2,135	3,073,857	1,348,916	1,013.0	1,366
9/8/2020	21.2	43.9	1,867	2,378,326	1,043,693	1,013.0	1,057
9/9/2020	24.0	43.9	1,866	2,686,687	1,179,012	1,013.0	1,194
9/10/2020	21.7	43.9	1,572	2,050,371	899,775	1,013.0	911
9/11/2020	24.0	43.9	1,239	1,783,934	782,853	1,013.0	793
9/12/2020	24.0	43.9	1,416	2,038,550	894,587	1,013.0	906
9/13/2020	24.0	43.9	1,440	2,073,753	910,035	1,013.0	922
9/14/2020	24.0	43.9	1,439	2,071,499	909,046	1,013.0	921
9/15/2020	23.8	43.9	1,339	1,911,611	838,882	1,013.0	850
9/16/2020	23.8	43.9	1,238	1,767,943	775,835	1,013.0	786
9/17/2020	21.2	43.9	1,217	1,550,405	680,372	1,013.0	689
9/18/2020	22.4	43.9	1,158	1,553,762	681,845	1,013.0	691
9/19/2020	24.0	43.9	1,213	1,746,251	766,316	1,013.0	776
9/20/2020	24.0	43.9	1,371	1,974,463	866,463	1,013.0	878
9/21/2020	24.0	43.9	1,448	2,085,253	915,082	1,013.0	927
9/22/2020	12.2	43.9	1,430	1,043,812	458,061	1,013.0	464
9/23/2020	0.0	43.9	0	0	0	1,013.0	0
9/24/2020	12.2	43.9	1,273	932,158	409,064	1,013.0	414
9/25/2020	24.0	43.9	1,200	1,728,710	758,618	1,013.0	768
9/26/2020	24.0	43.9	1,279	1,842,342	808,484	1,013.0	819
9/27/2020	24.0	43.9	1,395	2,008,576	881,433	1,013.0	893
9/28/2020	24.0	43.9	1,437	2,069,423	908,135	1,013.0	920
9/30/2020	24.0	43.9	1,411	2,032,434	891,903	1,013.0	903
Totals/ Average:	**661.73**	**43.9**	**1,546**	**63,903,632**	**28,043,150**	**1013.0**	**28,408**
						Maximum:	**1,469**

Notes:

*Methane content determined from flare A-14 February 26, 2020 source test results.

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet
MMBTU= million British thermal units
LFG= landfill gas
CH_4= methane

APPENDIX M

GAS MIGRATION MONITORING REPORTS

WASTE MANAGEMENT

WASTE MANAGEMENT
910 Coyote Creek Golf Drive,
San Jose, CA 95037

October 9, 2020

Ms. Becky Azevedo
Guadalupe Recycling & Disposal Facility
15999 Guadalupe Mines Road
San Jose, CA 95120

Re: Third Quarter 2020 Perimeter Gas and Methane in Structure Monitoring Report Guadalupe Recycling & Disposal Facility

Dear Ms. Azevedo:

This report for the Guadalupe Recycling & Disposal Facility (GRDF) contains the results of the Third Quarter 2020 Perimeter Gas and Methane in Structure Monitoring conducted at the GRDF. All monitoring was conducted by GRDF personnel.

REGULATORY REQUIREMENTS

Requirements for monitoring are outlined in 40 CFR 258.23, Title 27 California Code of Regulations (CCR), Article 6, Gas Monitoring at Active and Closed Disposal Sites. These regulations require periodic monitoring to ensure that methane concentrations are less than 5 percent at the property boundary and less than 1.25 percent in on-site buildings and structures. Reporting requirements are presented in Title 27 §20934.

MONITORING RESULTS AND MAP [TITLE 27 §20934(a)(1), (2), (3) AND (5)]

Monitoring was conducted in accordance with 40 CFR 258.23 and Title 27, Article 6 at the locations shown in the attached map (Attachment A). Results for both probes and structures are summarized in Table 1. Field data are presented in Attachment B.

Table 1 Monitoring Results

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
GUADGP01	9/23/2020;12:39 PM	0	0.05	Yes	Yes	
GUADGP02	9/23/2020;12:33 PM	0	0.03	Yes	Yes	
GUADGP03	9/23/2020;12:26 PM	0	0.00	Yes	Yes	
GUADGP04	9/23/2020;11:44 AM	0	-0.86	Yes	Yes	
GUADGP05	9/23/2020;11:51 AM	0	-0.17	Yes	Yes	
GUADGP6S	9/23/2020;11:53 AM	0	0.02	Yes	Yes	
GUADGP6D	9/23/2020;11:56 AM	0	-0.02	Yes	Yes	

STRUCTURE FID MONITORING DATA

Analyst: M. Bernard **Date: 9/22/2020**
Instrument: TVA 1000 **Serial #: 0928538411**

Monitored Location	Time	PPM	Comments
Scale House #1 Occupied Space	11:00 AM	0	
Scale House #1 Electrical Closet	11:02 AM	0	
Scale House #2 Occupied Space	11:05 AM	300	Space near the ceiling not consistent
Scale House #2 Electrical Closet	11:07 AM	0	
Scale House #3 Occupied Space	11:10 AM	0	
Scale House #3 Electrical Closet	11:12 AM	0	
Admin Office Crawl Space	11:20 AM	0	
Admin Office Electrical Closet	11:25 AM	0	
Admin Trailer	11:30 AM	0	
Security Trailer	11:40 AM	0	
MRF Scale House	11:50 AM	0	
MRF Building East Electrical	11:52 AM	0	
Maintenance Building Office Outlet	12:05 PM	0	
Maintenance Building Kitchen Outlet	12:10 PM	0	
Maintenance Building Shower Drain	12:15 PM	0	
Maintenance Building Electrical Box	12:20 PM	0	
Training Room Trailer	12:25 PM	0	

Immediately notify compliance personnel of any readings in excess of 1.25 percent methane.

ND = No detection
California Code of Regulations Title 27, Division 2, Chapter 3, Article 6, §20921 require that:
(1) The concentration of methane gas must not exceed 1.25 percent by volume in air within any portion of any on-site structures.
(2) The concentration of methane gas migrating from the disposal site must not exceed 5 percent by volume in air at the disposal site permitted facility boundary or an alternative boundary approved in accordance with §20925.
Note: The reading should not exceed 25% LEL = 1.25% CH_4 = 12,500 ppm CH_4

No exceedances of Subtitle D (40 CFR 258.23) and California Code of Regulations (CCR) Title 27, Division 2, Section 20919.5 were detected during the monitoring events.

MONITORING EQUIPMENT AND METHODOLOGY [TITLE 27 §20934(a)(4)]

Perimeter Gas Monitoring

The Third Quarter 2020 monitoring was conducted by M.Bernard on September 23, 2020 using a GEM 2000. The static pressure of each probe was monitored using the GEM 5000. Following the measurement of the static pressure, the probes were monitored to determine methane concentration.

Facility Structures

M. Bernard used a Toxic Vapor Analyzer (TVA1000) to monitor buildings and structures to check for the presence of methane on September 22, 2020. The instrument was calibrated on September 22, 2020 using 500 parts per million by volume (ppm_v) methane standard.

Combustible Methane Gas Monitor Calibration

Some facility structures are monitored continuously using Sierra Monitors. The monitor is calibrated at a frequency determined by the manufacturer. This event was conducted by M.Bernard on September 22, 2020.

GENERAL WEATHER CONDITIONS [TITLE 27 §20934(a)(3)]

General weather conditions at the time of monitoring are presented in Table 2.

Table 2 General Weather Conditions

Description	9/23/2020
General Conditions	Fair
Temperature (ºF)	69
Wind Speed (mph)	12
Wind Direction	NW
Barometric Pressure (“Hg)	30.05

CLOSING

If you have any questions regarding this notification, please do not hesitate to contact me at (510) 875-9338.

Thank you,

Waste Management,

Rajan Phadnis
Environmental Protection Specialist

ATTACHMENT A

PROBE LOCATION MAP

LEGEND

LGP-04 ●	LFG MIGRATION MONITORING PROBE AND DESIGNATION
◌	1000 FT RADIUS FROM LFG MIGRATION MONITORING PROBE

N

0 500 1000

SCALE IN FEET

TITLE:

PERIMETER GAS PROBE LOCATIONS

LOCATION:

Guadalupe Rubbish Disposal Company, Inc.
15999 Guadalupe Mines Roads, San Jose CA

GeoTrans, Inc.
A TETRA TECH COMPANY

APPROVED	KH
DRAFTED	CP
PROJECT#	117-2402070.01
DATE	10-7-09

FIGURE
1

P:\ACAD\2402-070-GUAD\2402070001A.DWG

ATTACHMENT B

FIELD DATA

Guadalupe Rubbish Disposal Facility
Perimeter Gas Monitoring Probe Results

Analyst: Markus Bernard
Date: 9/23/20__ __
Instrument: Gem 2000 Serial #: GM11977_
Atmospheric Temperature (Deg F): __
Barometric Pressure: 29__Inch of HG
Wind Speed: 1 mph Wind Direction: __S ___
Weather Condition: _Sunny

Probe ID	Time	CH$_4$ (%)	Probe Pressure (in-H$_2$0)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
GUADGP01	12:39 PM	0	0.05	Yes	Yes	
GUADGP02	12:33 PM	0	0.03	Yes	Yes	
GUADGP03	12:26 PM	0	0.00	Yes	Yes	
GUADGP04	11:44 AM	0	-0.86	Yes	Yes	
GUADGP05	11:51 AM	0	-0.17	Yes	Yes	
GUADGP6S	11:53 AM	0	0.02	Yes	Yes	
GUADGP6D	11:56 AM	0	-0.02	Yes	Yes	

Immediately notify compliance personnel of any readings in excess of 5 percent methane.

STRUCTURE FID MONITORING DATA

Analyst: M. Bernard **Date: 9/22/2020**
Instrument: TVA 1000 **Serial #: 0928538411**

Monitored Location	Time	PPM	Comments
Scale House #1 Occupied Space	11:00 AM	0	
Scale House #1 Electrical Closet	11:02 AM	0	
Scale House #2 Occupied Space	11:05 AM	300	Space near the ceiling not consistent
Scale House #2 Electrical Closet	11:07 AM	0	
Scale House #3 Occupied Space	11:10 AM	0	
Scale House #3 Electrical Closet	11:12 AM	0	
Admin Office Crawl Space	11:20 AM	0	
Admin Office Electrical Closet	11:25 AM	0	
Admin Trailer	11:30 AM	0	
Security Trailer	11:40 AM	0	
MRF Scale House	11:50 AM	0	
MRF Building East Electrical	11:52 AM	0	
Maintenance Building Office Outlet	12:05 PM	0	
Maintenance Building Kitchen Outlet	12:10 PM	0	
Maintenance Building Shower Drain	12:15 PM	0	
Maintenance Building Electrical Box	12:20 PM	0	
Training Room Trailer	12:25 PM	0	

Immediately notify compliance personnel of any readings in excess of 1.25 percent methane.

ND = No detection
California Code of Regulations Title 27, Division 2, Chapter 3, Article 6, §20921 require that:

(1) The concentration of methane gas must not exceed 1.25 percent by volume in air within any portion of any on-site structures.(2) The concentration of methane gas migrating from the disposal site must not exceed 5 percent by volume in air at the disposal site permitted facility boundary or an alternative boundary approved in accordance with §20925.

Note: The reading should not exceed 25% LEL = 1.25% CH_4 = 12,500 ppm CH_4

WASTE MANAGEMENT

GAS DETECTOR CALIBRATION RECORD

LOCATION: Guadalupe Recycling and Disposal Inc.

MANUFACTURER & MODEL NUMBER: Sierra Monitor Corporation Model # 2001

CALIBRATED BY/INSTRUMENT USED: / Sierra Monitor Corporation

CALIBRATION GAS EXPIRATION DATE: September 27, 2021

LOCATION	DATE CALIBRATED	SERIAL NUMBER	Methane LEL* SENSOR alarm 10,000 ppm	MAINTENANCE PERFORMED/ COMMENTS ON MONITOR CONDITION
Scale House #1	9-22-20	1500700093GAM	Yes	Good Condition
Scale House #2	9-22-20	1500700098GAM	Yes	Good Condition
Scale House #3	9-22-20	1500700101GAM	Yes	Good Condition
Training Room Trailer	9-22-20	1500700096GAM	Yes	Good Condition
Admin. Trailer	9-22-20	1500700097GAM	Yes	Good Condition
Main Office	9-22-20	1500700090GAM	Yes	Good Condition
MRF Scale House	9-22-20	1500700099GAM	Yes	Good Condition
Materials Yard Trailer	9-22-20	1500700091GAM	Yes	Good Condition
Shop Office #1	9-22-20	1500700010GAM	Yes	Good Condition
Shop Office #2	9-22-20	1500700094GAM	Yes	Good Condition
Shop Office #3	9-22-20	1500700095GAM	Yes	Good Condition
Shop Office #4	9-22-20	1500700092GAM	Yes	Good Condition

***This form must be retained for 12 months after completion**

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Guadalupe Rubbish Disposal Date: 9/22/20

Time: 10:40 AM ________ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 500 ppm

3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 6 ppm (a)
2. Downwind Reading (highest in 30 seconds): 3 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 4.5 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 7/15/2020

Expiration Date (3 months): 10/15/2020

Time: 9:45 AM ______ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 498 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 0 ppm (c)

Meter Reading for Calibration Gas: 497 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 0 ppm (e)

Meter Reading for Calibration Gas: 499 ppm (f)

Calculate Precision:

$$\frac{\{|(500) - (b)| + |(500) - (d)| + |(500) - (f)|\}}{3} \text{ x } \frac{1}{500} \text{ x } 100$$

0.4 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 7/15/20

Expiration Date (3 months): 10/15/20

Time: 9:45 AM ______ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Stabilized Reading Using Calibration Gas: 498 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 2 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 497 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 499 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 7 seconds (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} =$$ 4.666 seconds (must be less than 30 seconds)

Performed by: M. Bernard

WASTE MANAGEMENT
910 Coyote Creek Golf Drive,
San Jose, CA 95037

July 31, 2020

Ms. Becky Azevedo
Guadalupe Recycling & Disposal Facility
15999 Guadalupe Mines Road
San Jose, CA 95120

Re: Second Quarter 2020 Perimeter Gas and Methane in Structure Monitoring Report Guadalupe Recycling & Disposal Facility

Dear Ms. Azevedo:

This report for the Guadalupe Recycling & Disposal Facility (GRDF) contains the results of the Second Quarter 2020 Perimeter Gas and Methane in Structure Monitoring conducted at the GRDF. All monitoring was conducted by GRDF personnel.

REGULATORY REQUIREMENTS

Requirements for monitoring are outlined in 40 CFR 258.23, Title 27 California Code of Regulations (CCR), Article 6, Gas Monitoring at Active and Closed Disposal Sites. These regulations require periodic monitoring to ensure that methane concentrations are less than 5 percent at the property boundary and less than 1.25 percent in on-site buildings and structures. Reporting requirements are presented in Title 27 §20934.

MONITORING RESULTS AND MAP [TITLE 27 §20934(a)(1), (2), (3) AND (5)]

Monitoring was conducted in accordance with 40 CFR 258.23 and Title 27, Article 6 at the locations shown in the attached map (Attachment A). Results for both probes and structures are summarized in Table 1. Field data are presented in Attachment B.

Table 1 Monitoring Results

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
GUADGP01	5/14/2020;12:22 PM	0	0.01	Yes	Yes	
GUADGP02	5/14/2020; 12:14 PM	0	0.04	Yes	Yes	Dry
GUADGP03	5/14/2020;12:06 PM	0	0.02	Yes	Yes	
GUADGP04	5/14/2020;11:23 AM	0	-1.34	Yes	Yes	
GUADGP05	5/14/2020;11:15 AM	0	-0.07	Yes	Yes	
GUADGP6S	5/14/2020;11:46 AM	0	0.01	Yes	Yes	
GUADGP6D	5/14/2020;11:48 AM	0	0.04	Yes	Yes	

STRUCTURE FID MONITORING DATA

Analyst: M. Bernard **Date: 6/8/20**
Instrument: TVA 1000 **Serial #: 0928538411**

Monitored Location	Time	PPM	Comments
Scale House #1 Occupied Space	1:15PM	0	
Scale House #1 Electrical Closet	1:17PM	0	
Scale House #2 Occupied Space	1:20PM	200	Space near the ceiling
Scale House #2 Electrical Closet	1:22M	0	
Scale House #3 Occupied Space	125PM	0	
Scale House #3 Electrical Closet	1:27PM	0	
Admin Office Crawl Space	1:30PM	0	
Admin Office Electrical Closet	1:33PM	0	
Admin Trailer	1:35PM	0	
Security Trailer	1:40PM	0	
MRF Scale House	1:45PM	0	
MRF Building East Electrical	3:00 PM	0	
Maintenance Building Office Outlet	3:15PM	0	
Maintenance Building Kitchen Outlet	3:20 PM	0	
Maintenance Building Shower Drain	3:30 PM	0	
Maintenance Building Electrical Box	3:35PM	0	
Training Room Trailer	3:40 PM	0	

Immediately notify compliance personnel of any readings in excess of 1.25 percent methane.

ND = No detection
California Code of Regulations Title 27, Division 2, Chapter 3, Article 6, §20921 require that:
(1) The concentration of methane gas must not exceed 1.25 percent by volume in air within any portion of any on-site structures.
(2) The concentration of methane gas migrating from the disposal site must not exceed 5 percent by volume in air at the disposal site permitted facility boundary or an alternative boundary approved in accordance with §20925.
Note: The reading should not exceed 25% LEL = 1.25% CH_4 = 12,500 ppm CH_4

No exceedances of Subtitle D (40 CFR 258.23) and California Code of Regulations (CCR) Title 27, Division 2, Section 20919.5 were detected during the monitoring events.

MONITORING EQUIPMENT AND METHODOLOGY [TITLE 27 §20934(a)(4)]

Perimeter Gas Monitoring

The Second Quarter 2020 monitoring was conducted by M.Bernard on May 14, 2020 using a GEM 2000. The static pressure of each probe was monitored using the GEM 5000. Following the measurement of the static pressure, the probes were monitored to determine methane concentration.

Facility Structures

M. Bernard used a Toxic Vapor Analyzer (TVA1000) to monitor buildings and structures to check for the presence of methane on June 8, 2020. The instrument was calibrated on June 8, 2020 using 500 parts per million by volume (ppm_v) methane standard.

Combustible Methane Gas Monitor Calibration

Some facility structures are monitored continuously using Sierra Monitors. The monitor is calibrated at a frequency determined by the manufacturer. This event was conducted by M.Bernard on June 23, 2020.

GENERAL WEATHER CONDITIONS [TITLE 27 §20934(a)(3)]

General weather conditions at the time of monitoring are presented in Table 2.

Table 2 General Weather Conditions

Description	5/14/2020
General Conditions	Mostly Cloudy
Temperature (°F)	63
Wind Speed (mph)	9
Wind Direction	W
Barometric Pressure (“Hg)	30.07

CLOSING

If you have any questions regarding this notification, please do not hesitate to contact me at (510) 875-9338.

Thank you,

Waste Management,

Rajan Phadnis
Environmental Protection Specialist

ATTACHMENT A

PROBE LOCATION MAP

LEGEND

LGP-04 ●	LFG MIGRATION MONITORING PROBE AND DESIGNATION
◌	1000 FT RADIUS FROM LFG MIGRATION MONITORING PROBE

N

0 500 1000
SCALE IN FEET

TITLE:

PERIMETER GAS PROBE LOCATIONS

LOCATION:

Guadalupe Rubbish Disposal Company, Inc.
15999 Guadalupe Mines Roads, San Jose CA

GeoTrans, Inc.
A TETRA TECH COMPANY

APPROVED	KH	FIGURE
DRAFTED	CP	1
PROJECT#	117-2402070.01	
DATE	10-7-09	

P:\ACAD\2402-070-GUAD\2402070001A.DWG

ATTACHMENT B

FIELD DATA

Guadalupe Rubbish Disposal Facility
Perimeter Gas Monitoring Probe Results

Analyst: Markus Bernard
Date: 5/14/20
Instrument: Gem 5000 Serial #: G502469
Atmospheric Temperature (Deg F): 74
Barometric Pressure: 29 Inch of HG
Wind Speed: 1 mph Wind Direction: W
Weather Condition: Sunny

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
GUADGP01	12:22 PM	0	0.01	Yes	Yes	
GUADGP02	12:14 PM	0	0.04	Yes	Yes	Dry
GUADGP03	12:06 PM	0	0.02	Yes	Yes	
GUADGP04	11:23 AM	0	-1.34	Yes	Yes	
GUADGP05	11:15 AM	0	-0.07	Yes	Yes	
GUADGP6S	11:46 AM	0	0.01	Yes	Yes	
GUADGP6D	11:48 AM	0	0.04	Yes	Yes	

Immediately notify compliance personnel of any readings in excess of 5 percent methane.

STRUCTURE FID MONITORING DATA

Analyst: M. Bernard **Date: 6/8/2020**
Instrument: TVA 1000 **Serial #: 0928538411**

Monitored Location	Time	PPM	Comments
Scale House #1 Occupied Space	1:15 PM	0	
Scale House #1 Electrical Closet	1:17 PM	0	
Scale House #2 Occupied Space	1:20 PM	200	Space near the ceiling
Scale House #2 Electrical Closet	1:22 PM	0	
Scale House #3 Occupied Space	1:25 PM	0	
Scale House #3 Electrical Closet	1:27 PM	0	
Admin Office Crawl Space	1:30 PM	0	
Admin Office Electrical Closet	1:33 PM	0	
Admin Trailer	1:35 PM	0	
Security Trailer	1:40 PM	0	
MRF Scale House	1:45 PM	0	
MRF Building East Electrical	3:00 PM	0	
Maintenance Building Office Outlet	3:15 PM	0	
Maintenance Building Kitchen Outlet	3:20 PM	0	
Maintenance Building Shower Drain	3:30 PM	0	
Maintenance Building Electrical Box	3:35 PM	0	
Training Room Trailer	3:40 PM	0	

WASTE MANAGEMENT

GAS DETECTOR CALIBRATION RECORD

LOCATION: Guadalupe Recycling and Disposal Inc.

MANUFACTURER & MODEL NUMBER: Sierra Monitor Corporation Model # 2001

CALIBRATED BY/INSTRUMENT USED: / Sierra Monitor Corporation

CALIBRATION GAS EXPIRATION DATE: September 27, 2021

LOCATION	DATE CALIBRATED	SERIAL NUMBER	Methane LEL* SENSOR alarm 10,000 ppm	MAINTENANCE PERFORMED/ COMMENTS ON MONITOR CONDITION
Scale House #1	6-23-20	1500700093GAM	Yes	Good Condition
Scale House #2	6-23-20	1500700098GAM	Yes	Good Condition
Scale House #3	6-23-20	1500700101GAM	Yes	Good Condition
Training Room Trailer	6-23-20	1500700096GAM	Yes	Good Condition
Admin. Trailer	6-23-20	1500700097GAM	Yes	Good Condition
Main Office	6-23-20	1500700090GAM	Yes	Good Condition
MRF Scale House	6-23-20	1500700099GAM	Yes	Good Condition
Materials Yard Trailer	6-23-20	1500700091GAM	Yes	Good Condition
Shop Office #1	6-23-20	1500700010GAM	Yes	Good Condition
Shop Office #2	6-23-20	1500700094GAM	Yes	Good Condition
Shop Office #3	6-23-20	1500700095GAM	Yes	Good Condition
Shop Office #4	6-23-20	1500700092GAM	Yes	Good Condition

***This form must be retained for 12 months after completion**

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Guadalupe Date: 6-8-20

Time: ______ AM 12:30 PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Calibration Procedure

1. Allow instrument to internally zero itself while introducing zero air.
2. Introduce the calibration gas into the probe.

   Stable Reading = 499 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 2 ppm (a)
2. Downwind Reading (highest in 30 seconds): 2 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 2 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 3/23 /2020

Expiration Date (3 months): 6/23/2020

Time: 10:00 AM ______ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Meter Reading for Zero Air: 0 ppm (a)

Meter Reading for Calibration Gas: 500 ppm (b)

Measurement #2:

Meter Reading for Zero Air: 2 ppm (c)

Meter Reading for Calibration Gas: 500 ppm (d)

Measurement #3:

Meter Reading for Zero Air: 2 ppm (e)

Meter Reading for Calibration Gas: 500 ppm (f)

Calculate Precision:

$$\frac{\{|(500) - (b)| + |(500) - (d)| + |(500) - (f)|\}}{3} \times \frac{1}{500} \times 100$$

0.004 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 3/23/20

Expiration Date (3 months): 06/23/20

Time: 10:00 AM ______ PM

Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411

Measurement #1:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (a)

Measurement #2:

Stabilized Reading Using Calibration Gas: 500 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (b)

Measurement #3:

Stabilized Reading Using Calibration Gas: 496 ppm
90% of the Stabilized Reading: 450 ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: 5 seconds (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} = 5$$ seconds (must be less than 30 seconds)

Performed by: M. Bernard

APPENDIX N

SOURCE TEST SUMMARY AND RESULTS

Guadalupe Rubbish Disposal Facility (GRDF)

Facility # 3294

Compliance Emissions Test Report #20122
Landfill Gas Control Flare- Source A-9

Located at:
15999 Guadalupe Mines Road,
San Jose, CA

Prepared For:
Dave Bearden
SCS Engineers
3117 Fite Circle, Suite 108
Sacramento, CA 95827
(916) 361-1297
dbearden@scsengineers.com

For Submittal To:
Attn: Gloria Espena & Marco Hernandez
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105
gespena@baaqmd.gov & mhernandez@baaqmd.gov
sourcetest@baaqmd.gov

Testing Performed On:
April 29th, 2020

Final Report Submitted On:
June 24th, 2020

Performed and Reported by:
Blue Sky Environmental, Inc.
624 San Gabriel Avenue
Albany, CA 94706
bluesky@blueskyenvironmental.com
Office (510) 525 1261
Cell (510) 508 3469

REVIEW AND CERTIFICATION

Team Leader:

The work performed herein was conducted under my supervision, and I certify that: a) the details and results contained within this report are to the best of my knowledge an authentic and accurate representation of the test program; b) that the sampling and analytical procedures and data presented in the report are authentic and accurate; c) that all testing details and conclusions are accurate and valid, and: d) that the production rate and/or heat input rate during the source test are reported accurately.

If this report is submitted for Compliance purposes it should only be reproduced in its entirety. If there are any questions concerning this report, please contact me at (510) 508-3469.

Guy Worthington
Principal Project Manager

TABLE of CONTENTS

SECTION 1. INTRODUCTION

1.1. Summary

Blue Sky Environmental, Inc was contracted to perform emissions testing on the A-9 Landfill Gas (LFG) Flare at Guadalupe Rubbish Disposal Facility. (GRDF), 15999 Guadalupe Mines Road, San Jose, California. This report presents the results of the test program. Table 1 summarizes the source test information. Table 2 summarizes the results compared to the emission limits. The flare met all compliance emission criteria when tested with Condensate On and Condensate Off.

Table 1. Source Test Information

Test Location:	Guadalupe Rubbish Facility (GRDF), 15999 Guadalupe Mines Road, San Jose, California, 95120, Site Number 3294
Source Contact:	Becky Azeredo (408) 960 - 0769
Source Tested:	Enclosed Gas Flare (A-9)
Source Test Date:	April 29th, 2020
Test Objective:	Determine Compliance with BAAQMD Regulation 8, Rule 34, AB32 Landfill Methane Rule and BAAQMD Permit Condition 6188
Test Performed By:	Blue Sky Environmental, Inc 624 San Gabriel Ave., Albany, CA 94706 Guy Worthington (510) 508-3469 Blueskyenvironmental@yahoo.com
Test Parameters:	**Landfill Gas** O_2, N_2, CO_2, BTU, THC, CH_4, NMOC, HHV, F-Factor, Sulfur Species, Volumetric Flow rate **Flare Emissions** THC, CH_4, NMOC, NO_X, CO, O_2, SO_2, Volumetric Flow rate.

Table 2. Compliance Summary

Condensate On	**Average Test Result**	**Permit Limit**	**Compliance Status**
NO_X, ppmvd @ 15% O_2	9.5	16	In Compliance
CO, ppmvd @ 15% O_2	<3.3	134	In Compliance
SO_2, ppmvd	55.4	300	In Compliance
NMOC, (ppmvd @ 3% O_2 as CH_4)	<0.5	30	In Compliance
NMOC Destruction Efficiency	>99.89	98%	In Compliance
Methane Destruction Efficiency	>99.998	99%	In Compliance
Condensate Off	**Average Test Result**	**Permit Limit**	**Compliance Status**
NO_X, ppmvd @ 15% O_2	8.4	16	In Compliance
CO, ppmvd @ 15% O_2	<3.4	134	In Compliance
SO_2, ppmvd	46.4	300	In Compliance
NMOC, (ppmvd @ 3% O_2 as CH_4)	<1.6	30	In Compliance
NMOC Destruction Efficiency	>99.65	98%	In Compliance
Methane Destruction Efficiency	>99.996	99%	In Compliance

SECTION 2. SOURCE TEST PROGRAM

2.1. Overview

This performance test was conducted to demonstrate that the LFG flare is operating in accordance with the Bay Area Air Quality Management District (BAAQMD) Title V Permit for Site Number 3294 and BAAQMD Regulation 8, Rule 34. Testing was also performed to demonstrate compliance with the State Landfill Methane Gas Rule AB32 for Flare performance with Condensate On and Condensate Off.

2.2. Pollutants Tested

The following EPA and ASTM sampling and analytical methods were used:

EPA Method 1	Sample and Traverse Point Determination
EPA 3A	O_2, CO_2
EPA 10	CO
EPA 25A	THC, CH_4 and NMOC
EPA 7E	NO_X
EPA 18	CH_4
EPA 19	Flow Rate Calculation, DSCFM
EPA 25C	LFG Gas analysis for NMOC by GC
EPA 4 part 4.16	Moisture Calculated
ASTM 1945/3588	LFG Gas analysis for BTU and F-Factor
ASTM 5504	Sulfur Species, H_2S and TRS

2.3. Test Date(s)

Testing was conducted on April 29th, 2020.

2.4. Sampling and Observing Personnel

Testing was performed by Guy Worthington and Timothy Eandi representing Blue Sky Environmental.

Dave Bearden of SCS Engineers was present to operate the Flare and assist in coordinating testing and the collection of process data during testing.

The BAAQMD was notified of the test in a plan submitted by SCS Engineers on behalf of Waste Management dated April 8th, 2020 (NST #5928). A Source Test Protocol acknowledgement was received on April 8th, 2020, but no agency observers were present to witness the testing. A copy of the source test protocol and related email correspondence can be found in Appendix I.

2.5. Source/Process Description

The enclosed LFG flare at GRDF consists of a 70 million British Thermal Units per hour (MMBtu/hr) multiple nozzle burner manufactured by LFG Specialties, Inc. The flare shell is 35 feet high and 9.5 feet in diameter. The inside diameter (ID) is approximately 8.5 feet.

The flare was operated at an average 901 standard cubic feet per minute (SCFM). The flare set-point was established at 1,645 Degrees Fahrenheit (°F). Methane quality is typically about 46-49 percent (%), and the Oxygen content typically around 1% or less. Landfill gas condensate that is collected is periodically injected into the flare via one vertical nozzle positioned near the burner.

2.6. Source Operating Conditions

The flare operating temperature and the LFG flow rate records are contained in Appendix-F. The condensate injection rate was 0.9 gallons per minute (gpm).

The flare was operated at 1,642 - 1,643 °F average (avg.). The average LFG flow rate ranged between 885 – 919 standard cubic feet per minute (scfm).

The LFG methane content ranged between 49.4 and 50.2 percent (%). The average LFG Methane content of the six test runs was 49.9%.

SECTION 3. SAMPLING AND ANALYSIS PROCEDURES

3.1. Port location

The Flare sampling was conducted in the 8 feet 6 inch diameter ID stack (102"), via ports approximately 30 feet above grade, accessible by boom-lift. Four, 4-inch flange ports are available approximately 5 stack diameters downstream from the burners and ~2 stack diameters upstream from the exit.

3.2. Point description/Labeling – ports/stack

Blue Sky Environmental, Inc. conducted two perpendicular 8-point traverses per BAAQMD ST-18 and found O_2 stratification about 10% therefore subsequent CEM sampling was conducted with 8-point traverses per port to achieve the required (BAAQMD ST-7, 6.6) representative sampling of the emissions.

The traverse points for the exhaust of the flare with 8 feet 6 inch (102") diameter plus 4 inch ports were 7.3, 14.7, 23.8, 36.9, 73.1, 86.2, 95.3 and 102.7 inches.

3.3. Sample train description

Sampling system diagrams are included in the appendices. Additional descriptive information is included in the following section.

3.4. Sampling procedure description

Three, 30-minute minimum test runs were conducted with the Condensate Injection Off, and three 30-minute test runs with the Condensate Injection On.

Sampling & Traverse Points Selection by EPA Method 1. This method is used to determine the duct or stack area and appropriate traverse points that represent equal areas of the duct for sampling and velocity measurements.

EPA Method 3A (O_2, CO_2), 7E (NO_X) and 10 (CO) are continuous monitoring techniques using instrumental analyzers. Sampling is performed by extracting exhaust flue gas from the stack, conditioning the sample and analyzing it by continuous monitoring gas analyzers in a CEM test van. The sampling system consists of a stainless steel sample probe, a heated Teflon sample line, glass-fiber particulate filter, glass moisture-knockout condensers in ice, followed by thermoelectric coolers, Teflon sample transfer tubing, diaphragm pump and a stainless steel/Teflon manifold and flow control/delivery system. A constant sample and calibration gas supply pressure of 5 PSI was provided to each analyzer to avoid pressure variable response differences. The entire sampling system was leak checked prior to and at the end of the sampling program. The sampling and analytical system (for EPA Methods) was checked for linearity with zero, mid (40-60%) and high span (80-100%) calibrations, and is checked for system bias at the beginning and end of each run. System bias is determined by introducing calibration gas to the probe and pulling it through the entire sampling system. Individual test run calibrations usually use the calibration gas that most closely matches the stack gas effluent. Along with the Sampling System Bias, the Zero and Calibration Drift values were determined for each test. Methods 3A, 7E and 10 all defer to EPA Method 7E for the calculations of effluent concentration, Span, Calibration Gas, Analyzer Calibration Error (Linearity), Sampling System Bias, Zero Drift, Calibration Drift and Response Time. In addition, the NO_X analyzer NO_2 to NO conversion efficiency check defers to EPA Method 20 section 5.6 for the criteria and procedure.

All calibration gases are EPA Protocol #1. The analyzer data recording system consists of a Honeywell DPR3000 strip chart recorder supported by a Data Acquisition System (DAS).

System Performance Criteria

Instrument Linearity	≤2% Full Scale
Instrument Bias	≤5% Full Scale
System Response Time	≤± 2 minutes
NO$_X$ Converter Efficiency (EPA 7E)	≥ 90%
Instrument Zero Drift	≤± 3% Full Scale
Instrument Span Drift	≤± 3% Full Scale

EPA Method 25A Total Hydrocarbons, Methane and Non-Methane Hydrocarbons. EPA Method 25A employs a heated FID, Teflon sample gas transfer lines to provide a continuous sample to the heated FID Hydrocarbon Analyzer. Heated lines were used if necessary to avoid moisture or hydrocarbon condensation. Calibration gases are selected to fall within 25-35%, 45-55% and 80-90% of Range for Total Hydrocarbon.

Methane in the exhaust is usually determined per EPA Methods (M18). An integrated tedlar bag or SUMMA canister is collected and either analyzed by GC or onsite using a charcoal scrubber to remove the non-methane organics, and determining the difference between the total hydrocarbon and non-methane hydrocarbon concentrations. Where the total hydrocarbon numbers are well below detection limits and less than 5 ppm for example, the methane may not be determined separately.

EPA Method 18 (VOC or Methane) is used to measure the Methane and ethane to subtract from the THC of Method 25A. This method is used to determine emissions of volatile organics or Methane analyzed by gas chromatograph/mass spectroscopy (GC/MS). Gaseous emissions are drawn through a teflon sample line to a pre-evacuated 6-Liter SUMMA canister. Sample is drawn into the canister by pre-evacuating the container to stack gas pressure to allow sample flow without using a pump to avoid contamination. Negative pressure is adjusted to maintain an integrated sample flow between 20 to 60 minutes. The canister samples are taken to a laboratory and analyzed within 72 hours.

To prevent moisture condensation, a condenser may be used before the canister and the condensate analyzed separately, or the canister can be partially pre-filled with a known quantity zero air or nitrogen, prior to collecting the gas sample, or the system can be heated and kept heated above the condensation point until analysis.

Method 19 (gas) was used to determine stack gas volumetric flow rates using oxygen based F-factors. F-factors are ratios of combustion gas volumes generated from heat input. The heating value of the fuel in Btu per cubic foot is determined from analysis of the fuel gas samples using ASTM D1945/3588 gas chromatography analytical procedures. Total fuel consumption for each source is monitored by a dedicated fuel gas meter. The total cubic feet per hour of fuel multiplied times the Btu/cf provides million Btu per hour (MMBtu) heat input. The heat input in MMBtu/hr is multiplied by the F-factor (DSCF/MMBtu) and adjusted for the measured oxygen content of the source to determine volumetric flow rate. The flow rates were used to determine emission rates.

Fuel Analysis per ASTM D-1945/3588 and ASTM D-5504 are used for fuel sampling and analysis for F-Factor and BTU determination, fixed gas analysis O_2, CO_2, CO, N_2, H_2, CH_4, C2-C6+, and sulfur compounds, including H2S. Samples may be collected in tedlar bags and analyzed within 24 hours or Silco SUMMA canisters and analyzed within 72 hours. Hydrogen Sulfide, Carbonyl Sulfide, Sulfur Dioxide, Methyl Mercaptan, Ethyl Mercaptan, Dimethyl Sulfide, Carbon Disulfide, Isopropyl Mercaptan, tert-Butyl Mercaptan, n-Propyl Mercaptan, Methylethylsulfide, sec-Butyl Mercaptan, Thiophene, iso-Butyl Mercaptan, Diethyl Sulfide, n-Butyl Mercaptan, Dimethyl Disulfide, 2-Methylthiophene, 3-Methylthiophene, Tetrahydrothiophene, Bromothiophene, Thiophenol, Diethyl Disulfide, Total Unidentified Sulfurs, Total Reduced Sulfurs as H2S.

EPA Method 4-16.4 is an acceptable alternative to EPA Method 4 for the determination of moisture from combustion using F-factors. In this case the mole fraction of the moisture in the ambient air is calculated using equations in EPA Method 4-16.4 from 1) the measured ambient relative humidity, ambient temperature and barometric pressure, 2) the mole fraction from free water in the fuel, calculated from the moisture % in the fuel which is determined by the analytical lab to be the balance after all the major gaseous components have been summed, and 3) the mole fraction from the hydrogen in the fuel. To determine the moisture in the fuel, the sum of the raw fuel analysis before normalization, is subtracted from 100.

ASTM Method 1945/5504/25C Concurrent with the exhaust sampling, Blue Sky collected a total of six 6-L Silco Canisters of the LFG for analysis. The canisters were equipped with a 30 minute flow controller and vacuum gauge to aim for a final internal vacuum of the canister of approximately above 5" of Hg. The samples were collected directly from the inlet line. All the samples were analyzed for NMOC, HHV, F-Factor, Fixed Gases, Sulfur Species (including H_2S and TRS). The inlet volumetric flow rate was continuously measured and recorded by the LFG Flowmeter.

3.5. Instrumentation and Analytical procedures

The following continuous emissions analyzers were used:

Instrumentation	Parameter	Principle
TECO 42C	NO_X	Chemiluminescence
TECO 42C	NO	Chemiluminescence
TECO 48C	CO	GFC/IR
Ratfisch RS-55	THC	FID
Fuji ZRH	CO_2	IR
Servomex 1440	O_2	Paramagnetic

The instrument response was recorded on strip charts, but the analyzer data collected on the DAS was used for reporting the results. The averages were corrected for drift using EPA Method 7E equations.

3.6. Comments: Limitations and Data Qualifications

The measured emissions meet the Permit required limits, no deviations from the protocol or abnormalities during the test were observed.

Blue Sky Environmental has reviewed this report for accuracy, and concluded that the test procedures were followed and accurately described and documented. The review included the following items:

Review of the general text
Review of calculations
Review of CEMS data
Review of supporting documentation

The services described in this report were performed in a manner consistent with the generally accepted professional testing principles and practices. No other warranty, expressed or implied, is made. These services were performed in a manner consistent with our agreement with our client. The report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions contained in this report pertain to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and operating parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations, subsequent to this, and do not warranty the accuracy of information supplied by others.

SECTION 4. APPENDICES

A.	**Tabulated Results**
B.	**Calculations**
C.	**Laboratory Reports**
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A
Tabulated Results

TABLE #1

WM - GRDF
Flare A-9
LFG - Condensate On

RUN	1	2	3	AVERAGE	LIMITS
Test Date	4/29/20	4/29/20	4/29/20		
Test Time	1018-1100	1127-1205	1231-1309		
Standard Temp., °F	70	70	70		
Flare Temperature, °F Average	1,643	1,642	1,643	1,643	
Condensate Injection, gpm	0.9	0.9	0.9	0.9	
Fuel Flow Rate, SCFM	885	901	919	902	
Fuel Heat Input, MMBTU/Hr	26.3	26.7	27.4	26.8	
Exhaust Flow Rate, DSCFM (Method 19)	9,850	10,127	10,365	10,114	
Oxygen, O_2, %	12.0	12.1	12.1	12.1	
Carbon Dioxide, CO_2, %	7.9	7.9	7.8	7.9	
Water Vapor, H_2O, % M4.16	5.6	5.4	5.6	5.5	
NO, ppm	14.6	14.6	14.5	14.6	
NO_2, ppm	<1.0	<1.0	<1.0	<1.0	
NO_2/NO	<0.07	<0.07	<0.07	<0.07	
NOx, ppm	14.2	14.2	14.3	14.2	
NOx, ppm @ 15% O_2	**9.4**	**9.5**	**9.6**	**9.5**	**16**
NOx, lbs/hr	0.99	1.03	1.06	1.03	
CO, ppm	<5.0	<5.0	<5.0	<5.0	
CO, ppm @ 15% O_2	**<3.3**	**<3.3**	**<3.3**	**<3.3**	**134**
CO, lbs/hr	<0.21	<0.22	<0.23	<0.22	
Total Sulfurs as H_2S in fuel, ppm	678	641	544	621	
SO_2 calculated emission, ppm	**60.9**	**57.0**	**48.3**	**55.4**	**300**
THC, ppm (25A) wet	<1.0	<1.0	<1.0	<1.0	
THC, ppm dry	<1.1	<1.1	<1.1	<1.1	
THC, lbs/hr as CH_4	<0.03	<0.03	<0.03	<0.03	
CH_4, ppm (M18)	0.9	0.8	0.7	0.8	
CH_4, lbs/hr	0.02	0.02	0.02	0.02	
NMOC, ppm as CH_4	<0.2	<0.3	<0.4	<0.3	
NMOC, lbs/hr as CH_4	<0.00	<0.01	<0.01	<0.01	
NMOC, ppm @ 3% O_2 as CH_4	**<0.3**	**<0.5**	**<0.7**	**<0.5**	**30**
INLET TNMOC (Method 25C)	2,424	2,843	2,732	2,666	
INLET NMOC, lbs/hr as CH_4	5.3	6.4	6.2	6.0	
NMOC Removal Efficiency	**99.93%**	**99.90%**	**99.85%**	**99.89%**	**98**
INLET CH_4, ppm	495,000	494,000	497,000	495,333	
INLET CH_4, lbs/hr	1,088	1,104	1,134	1,109	
CH_4 Removal Efficiency	**>99.998%**	**>99.998%**	**>99.998%**	**>99.998%**	**99**
INLET THC (TOC), ppm as CH_4	497,424	496,843	499,732	498,000	
INLET THC (TOC), lbs/hr as CH_4	1,093	1,111	1,141	1,115	
THC (TOC) Removal Efficiency	**99.998%**	**99.998%**	**99.998%**	**99.998%**	

< Value = 2% of Analyzer Range

WHERE,

ppm = Parts Per Million Concentration
Lbs/hr = Pound Per Hour Emission Rate
Tstd. = Standard Temp. (°R = °F+460)
MW = Molecular Weight
DSCFM = Dry Standard Cubic Feet Per Minute
NOx = Oxides of Nitrogen as NO_2 (MW = 46)
CO = Carbon Monoxide (MW = 28)
TOC = THC = Total Organic Carbon as Methane including CH_4 (MW = 16)
THC = Total Hydrocarbons as Methane (MW = 16)
NMOC = Total Non-Methane Organic Carbon as Methane (MW = 16)
SO_2 = Sulfur Dioxide as SO_2 (MW = 64.1)

CALCULATIONS,

PPM @ 15% O_2 = ppm * 5.9 / (20.9 - %O_2)
PPM @ 3% O_2 = ppm * 17.9 / (20.9 - %O_2)
Lbs/hr = ppm x 8.223 E-05 x DSCFM x MW / Tstd. °R
Lbs/day = Lbs/hr * 24
Removal Efficiency = (inlet lbs/hr- outlet lbs/hr) / inlet lbs/hr
SO_2 emission ppm = H2S in fuel * Fuel Flow/Stack Gas Flow

TABLE #2

WM - GRDF
Flare A-9
LFG - Condensate Off

RUN	1	2	3	AVERAGE	LIMITS
Test Date	4/29/20	4/29/20	4/29/20		
Test Time	1346-1428	1448-1527	1604-1642		
Standard Temp., °F	70	70	70		
Flare Temperature, °F Average	1,642	1,643	1,643	1,643	
Condensate Injection, gpm	0.0	0.0	0.0	0.0	
Fuel Flow Rate, SCFM	913	891	894	899	
Fuel Heat Input, MMBTU/Hr	27.5	26.9	27.0	27.1	
Exhaust Flow Rate, DSCFM (Method 19)	10,738	10,506	10,427	10,557	
Oxygen, O_2, %	12.4	12.4	12.3	12.3	
Carbon Dioxide, CO_2, %	7.6	7.6	7.6	7.6	
Water Vapor, H_2O, % M4.16	5.5	5.5	5.7	5.6	
NO, ppm	12.1	12.3	12.6	12.3	
NO_2, ppm	<1.0	<1.0	<1.0	<1.0	
NO_2/NO	<0.08	<0.08	<0.08	<0.08	
NOx, ppm	11.9	12.1	12.4	12.1	
NOx, ppm @ 15% O_2	**8.2**	**8.4**	**8.5**	**8.4**	**16**
NOx, lbs/hr	0.91	0.91	0.92	0.91	
CO, ppm	<5.0	<5.0	<5.0	<5.0	
CO, ppm @ 15% O_2	**<3.5**	**<3.5**	**<3.4**	**<3.4**	**134**
CO, lbs/hr	<0.23	<0.23	<0.23	<0.23	
Total Sulfurs as H_2S in fuel, ppm	616	583	436	545	
SO_2 calculated emission, ppm	**52.4**	**49.5**	**37.4**	**46.4**	**300**
THC, ppm (25A) wet	<1.0	<1.0	<1.0	<1.0	
THC, ppm dry	<1.1	<1.1	<1.1	<1.1	
THC, lbs/hr as CH_4	<0.03	<0.03	<0.03	<0.03	
CH_4, ppm (M18)	1.5	1.9	1.9	1.8	
CH_4, lbs/hr	0.04	0.05	0.05	0.05	
NMOC, ppm as CH_4	<0.5	<0.9	<0.9	<0.8	
NMOC, lbs/hr as CH_4	<0.01	<0.02	<0.02	<0.02	
NMOC, ppm @ 3% O_2 as CH_4	**<1.0**	**<1.9**	**<1.9**	**<1.6**	**30**
INLET TNMOC (Method 25C)	2,454	2,625	2,608	2,562	
INLET NMOC, lbs/hr as CH_4	5.6	5.8	5.8	5.7	
NMOC Removal Efficiency	**99.76%**	**99.60%**	**99.60%**	**99.65%**	**98**
INLET CH_4, ppm	501,000	502,000	502,000	501,667	
INLET CH_4, lbs/hr	1,135.3	1,110.9	1,113.7	1,120	
CH_4 Removal Efficiency	**>99.996%**	**>99.996%**	**>99.996%**	**>99.996%**	**99**
INLET THC (TOC), ppm as CH_4	503,454	504,625	504,608	504,229	
INLET THC (TOC), lbs/hr as CH_4	1,141	1,117	1,119	1,126	
THC (TOC) Removal Efficiency	**99.998%**	**99.998%**	**99.998%**	**99.998%**	

< Value = 2% of Analyzer Range

WHERE,

ppm = Parts Per Million Concentration
Lbs/hr = Pound Per Hour Emission Rate
Tstd. = Standard Temp. (°R = °F+460)
MW = Molecular Weight
DSCFM = Dry Standard Cubic Feet Per Minute
NOx = Oxides of Nitrogen as NO_2 (MW = 46)
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TOC = THC = Total Organic Carbon as Methane including CH_4 (MW = 16)
THC = Total Hydrocarbons as Methane (MW = 16)
NMOC = Total Non-Methane Organic Carbon as Methane (MW = 16)
SO_2 = Sulfur Dioxide as SO_2 (MW = 64.1)

CALCULATIONS,

PPM @ 15% O_2 = ppm * 5.9 / (20.9 - %O_2)
PPM @ 3% O_2 = ppm * 17.9 / (20.9 - %O_2)
Lbs/hr = ppm x 8.223 E-05 x DSCFM x MW / Tstd. °R
Lbs/day = Lbs/hr * 24
Removal Efficiency = (inlet lbs/hr- outlet lbs/hr) / inlet lbs/hr
SO_2 emission ppm = H2S in fuel * Fuel Flow/Stack Gas Flow

Guadalupe Rubbish Disposal Facility (GRDF)

Facility # 3294

Compliance Test Report #20066
Landfill Gas Control Flare- Source A-14

Located at:

15999 Guadalupe Mines Road
San Jose, CA

Prepared For:

SCS Engineers
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Testing Performed On:
February 26th, 2020

Final Report Submitted On:
April 10th, 2020

Performed and Reported by:

Blue Sky Environmental, Inc
624 San Gabriel Avenue
Albany, CA 94706
Office (510) 508-3469/Mobile (510) 508 3469
bluesky@blueskyenvironmental.com

REVIEW AND CERTIFICATION

Team Leader:

The work performed herein was conducted under my supervision, and I certify that: a) the details and results contained within this report are to the best of my knowledge an authentic and accurate representation of the test program; b) that the sampling and analytical procedures and data presented in the report are authentic and accurate; c) that all testing details and conclusions are accurate and valid, and: d) that the production rate and/or heat input rate during the source test are reported accurately.

If this report is submitted for Compliance purposes it should only be reproduced in its entirety. If there are any questions concerning this report, please contact me at (510) 508 3469.

Jeramie Richardson
Project Manager

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SECTION 1. INTRODUCTION

1.1. Summary

Blue Sky Environmental, Inc was contracted to perform the compliance test on the A-14 Landfill Gas (LFG) Flare at Guadalupe Rubbish Disposal Facility. (GRDF), 15999 Guadalupe Mines Road, San Jose, California. This report presents the results of the test program. Table 1 summarizes the source test information. Table 2 summarizes the results compared to the emission limits. The flare met all compliance emission criteria.

Table 1. Source Test Information

Test Location:	Guadalupe Rubbish Disposal Facility (GRDF), 15999 Guadalupe Mines Road, San Jose, California, 95120, Site Number 3294
Source Contact:	Becky Azevedo (408) 960-0769
Source Tested:	Enclosed Gas Flare (A-14)
Source Test Date:	February 26th, 2020
Test Objective:	Determine Compliance with BAAQMD Regulation 8, Rule 34 and BAAQMD ATC Permit Condition 25320
Test Performed By:	Blue Sky Environmental, Inc 624 San Gabriel Ave., Albany, CA 94706 Guy Worthington (510) 508-3469 bluesky@blueskyenvironmental.com
Test Parameters:	**Landfill Gas** O_2, N_2, CO_2, BTU, THC, CH_4, NMOC, HHV, F-Factor, Sulfur Species, Volumetric Flow rate **Flare Emissions** THC, CH_4, NMOC, NO_X, CO, O_2, SO_2, Moisture, Volumetric Flow rate.

Table 2. Compliance Summary

Condensate On	**Average Test Result**	**Permit Limit**	**Compliance Status**
NO_X, ppmvd @ 15% O_2	**10.0**	**15**	**In Compliance**
CO, ppmvd @ 15% O_2	**<1.3**	**81**	**In Compliance**
SO_2, ppmvd	**71.9**	**300**	**In Compliance**
NMOC, (ppmvd @ 3% O_2 as CH_4)	**3.0**	**30**	**In Compliance**
NMOC Destruction Efficiency	**99.29**	**98%**	**In Compliance**
CH_4 Destruction Efficiency	**>99.997**	**99%**	**In Compliance**

Condensate Off	Average Test Result	Permit Limit	Compliance Status
NO_X, ppmvd @ 15% O_2	**8.6**	**15**	**In Compliance**
CO, ppmvd @ 15% O_2	**4.1**	**81**	**In Compliance**
SO_2, ppmvd	**44.3**	**300**	**In Compliance**
NMOC, (ppmvd @ 3% O_2 as CH_4)	**<2.0**	**30**	**In Compliance**
NMOC Destruction Efficiency	**99.57**	**98%**	**In Compliance**
CH_4 Destruction Efficiency	**>99.998**	**99%**	**In Compliance**

SECTION 2. SOURCE TEST PROGRAM

2.1. Overview

This performance test was conducted to demonstrate that the LFG flare is operating in accordance with the Bay Area Air Quality Management District (BAAQMD) Authority to Construct Application Number 21927 and BAAQMD Regulation 8, Rule 34. Testing was also performed to demonstrate compliance with the State Landfill Methane Gas Rule under AB32 for Flare performance.

2.2. Pollutants Tested

The following EPA and ASTM sampling and analytical methods were used:

EPA 3A	O_2, CO_2
EPA 10	CO
EPA 18/25A	CH_4/THC/NMOC
EPA 7E	NO_X
EPA 19	Flow Rate Calculation, DSCFM
EPA 25C	LFG Gas analysis for NMOC by GC
ASTM 1945/3588	LFG Gas analysis for BTU and F-Factor
ASTM 5504	Sulfur Species, H_2S, Calculated SO_2 and TRS
EPA 4 part 4.16	Moisture Calculated

2.3. Test Date(s)

Testing was conducted on February 26th, 2020.

2.4. Sampling and Observing Personnel

Testing was performed by Guy Worthington and Kurt Mussatti representing Blue Sky Environmental.

Rajan Phadnis and Marcus Bernard of Waste Management (WM) were present to operate the Flare and assist in coordinating testing and the collection of process data during testing. Dave Bearden of SCS Engineers was present to coordinate and assist.

The BAAQMD was notified of the test in a plan submitted by SCS Engineering on behalf of Waste Management dated February 7th, 2020. A Source Test Protocol acknowledgement (NST #5840) was received on February 13th, 2020, but no agency observers were present to witness the testing. A copy of the source test protocol and email correspondence can be found in Appendix I.

2.5. Source/Process Description

The enclosed LFG flare at GRDF consists of a 90 million British Thermal Units per hour (MMBtu/hr) multiple nozzle burner manufactured by LFG Specialties, Inc. The flare shell is 55 feet high and 9.0 feet in diameter. The inside diameter (ID) is approximately 102 inches.

The flare was operated at an average 2,040 standard cubic feet per minute (SCFM). The flare set-point was established at 1,660 Degrees Fahrenheit (°F). Methane quality is typically about 44-49 percent (%), and the Oxygen content typically around 1.5% or less. Landfill gas condensate that is collected is periodically injected into the flare via one vertical nozzle positioned near the burner.

2.6. Source Operating Conditions

The flare operating temperature and the LFG flow rate records are contained in the Appendix-F

The flare was operated at 1,658°F average (avg.). The average LFG flow rate ranged between 2,004 and 2,079 standard cubic feet per minute (scfm).

The condensate injection rate was approximately 1.12 gallons per minute (gpm)

The LFG methane content ranged between 41.5 and 45 percent (%). The average LFG content of the six test runs was 43.9%.

SECTION 3. SAMPLING AND ANALYSIS PROCEDURES

3.1. Port location

Three, 30-minute minimum test runs were conducted with the Condensate Injection Off, and three 30-minute minimum test runs with the Condensate Injection On. The Flare sampling was conducted in the 102 inch diameter ID stack, via ports approximately 50.5 feet above grade, accessible by 60' boom-lift. Four, 4-inch flange ports are available approximately 5 stack diameters downstream from the burners and ~1 stack diameters upstream from the exit.

3.2. Point description/Labeling – ports/stack

Blue Sky Environmental, Inc. conducted two perpendicular 8-point traverses per BAAQMD ST-18 and found O_2 stratification of more than 10% therefore subsequent CEM sampling was conducted with 8-point traverses per port to achieve the required (BAAQMD ST-7, section 6.6) representative sampling of the emissions. Sampling was performed for 2-minutes per point, over 16 points, totaling 32 minutes.

The traverse points for the exhaust of the flare with 102 inch diameter plus 8 inch ports were 3.2, 10.8, 19.4, 32.2, 67.7, 80.6, 89.5 and 96.8 inches.

3.3. Sample train description

Sampling system diagrams are included in the appendices. Additional descriptive information is included in the following section.

3.4. Sampling procedure description

Three, 30-minute minimum test runs were conducted with the Condensate Injection Off, and three 30-minute minimum test runs with the Condensate Injection On. All runs featured a full traverse and involved a delay for port change (16 minutes of time before and after a 8-11 minute port change).

EPA Method 3A (O_2, CO_2), 10 (CO) and 7E (NOx) are continuous monitoring techniques using instrumental analyzers. Sampling is performed by extracting exhaust flue gas from the stack, conditioning the sample and analyzing it by continuous monitoring gas analyzers in a CEM test van. The sampling system consists of a stainless steel sample probe, teflon sample line, glass-fiber particulate filter, glass moisture-knockout condensers in ice, followed by thermoelectric coolers (optional), teflon sample transfer tubing, diaphragm pump and a stainless steel/teflon manifold and flow control/delivery system. A constant sample and calibration gas supply pressure of 5 PSI was provided to each analyzer to avoid pressure variable response differences. The entire sampling system was leak checked prior to and at the end of the sampling program.

The sampling and analytical system (for EPA Methods) was checked for linearity with zero, mid (40-60%) and high span (80-100%) calibrations, and is checked for system bias at the beginning and end of each run. System bias is determined by introducing calibration gas to the probe and pulling it through the entire sampling system. Individual test run calibrations usually use the calibration gas that most closely matches the stack gas effluent. Along with the Sampling System Bias, the Zero and Calibration Drift values were determined for each test. Methods 3A, 7E and 10 all defer to EPA Method 7E for the calculations of effluent concentration, Span, Calibration Gas, Analyzer Calibration Error (Linearity), Sampling System Bias, Zero Drift, Calibration Drift and Response Time. In addition, the NOx analyzer NO_2 to NO conversion efficiency check defers to EPA Method 20 section 5.6 for the criteria and procedure.

All calibration gases are EPA Protocol #1. The analyzer data recording system consists of a Data Acquisition System (DAS).

Stack Gas Moisture by EPA Method 4-16.4 is an acceptable alternative to EPA Method 4 for the determination of moisture using F-factors. In this case the mole fraction of the moisture in the ambient air is calculated using equations in EPA Method 4-16.4 from 1) the measured ambient relative humidity, ambient temperature and barometric pressure, 2) the mole fraction from free water in the fuel, calculated from the moisture % in the fuel which is determined by the analytical lab to be the balance after all the major gaseous components have been summed, and 3) the mole fraction from the hydrogen in the fuel. To determine the moisture in the fuel, the raw fuel analysis before normalization to 100% is referenced.

EPA Method 25C for NMOC (ROC) in gaseous fuels. The Method is written for evacuated canister (SUMMA/SILCO) sampling. The sampling equipment comprises a Teflon, stainless steel or glass lined probe with a short stainless-steel or Teflon transfer line into a pre-evacuated SUMMA Canister. An orifice or regulator is placed immediately before the canister and to regulate the flow into the canister over a prescribed time period. The equipment used for analysis is exactly the same as used in EPA 25. The sample is injected into a GC column where the methane, CO and CO_2 are flushed through and removed. Then the NMOC (ROC) fraction is oxidized to form CO_2 then reduced to methane and measured by the flame ionization detector (FID).

System Performance Criteria

Instrument Linearity	≤ 2% Full Scale
25A Instrument Linearity	≤ 5% Cal Gas Value
Instrument Bias	≤ 5% Full Scale
NO_X Converter Efficiency (EPA 7E)	≥ 90%
System Response Time	≤± 2 minutes
Instrument Zero/Span Drift	≤± 3% Full Scale

EPA Method 18 (VOC or Methane) is used to determine emissions of volatile organics or Methane analyzed by gas chromatograph/mass spectroscopy (GC/MS). Gaseous emissions are drawn through a teflon sample line to a pre-evacuated 6-Liter SUMMA canister. Sample is drawn into the canister by pre-evacuating the container to stack gas pressure to allow sample flow without using a pump to avoid contamination. Negative pressure is adjusted to maintain an integrated sample flow between 20 to 60 minutes. The canister samples are taken to a laboratory and analyzed within 72 hours.

To prevent moisture condensation, a condenser may be used before the canister and the condensate analyzed separately, or the canister can be partially pre-filled with a known quantity zero air or nitrogen, prior to collecting the gas sample, or the system can be heated and kept heated above the condensation point until analysis.

EPA Method 25A Total Hydrocarbons, Methane and Non-Methane Hydrocarbons. EPA Method 25A employs a heated FID, Teflon sample gas transfer lines to provide a continuous sample to the heated FID Hydrocarbon Analyzer. Heated lines were used if necessary to avoid moisture or hydrocarbon condensation. Calibration gases are selected to fall within 25-35%, 45-55% and 80-90% of Range for Total Hydrocarbon.

Methane in the exhaust is usually determined per EPA Methods (M18). An integrated tedlar bag or SUMMA canister is collected and either analyzed by GC or onsite using a charcoal scrubber to remove the non-methane organics, and determining the difference between the total hydrocarbon and non-methane hydrocarbon concentrations. Where the total hydrocarbon numbers are well below detection limits and less than 5 ppm for example, the methane may not be determined separately.

Method 19 (gas) was used to determine stack gas volumetric flow rates using oxygen based F-factors. F-factors are ratios of combustion gas volumes generated from heat input. The heating value of the fuel in Btu per cubic foot is determined from analysis of the fuel gas samples using ASTM D1946/3588 gas chromatography analytical procedures. Fuel consumption is monitored by a flowmeter. The total cubic feet per hour of fuel multiplied times the Btu/cf provides million Btu per hour (MMBtu) heat input. The heat input in MMBtu/hr is multiplied by the F-factor (DSCF/MMBtu) and adjusted for the measured oxygen content of the source to determine volumetric flow rate. The flow rates were used to determine exhaust flow and emission rates.

Fuel Analysis per ASTM D-1945/3588 are used for fuel sampling and analysis for F-Factor and BTU determination, fixed fas analysis O_2, CO_2, CO, N_2, H_2, CH_4 and C2-C6+. Samples may be collected in tedlar bags and analyzed within 24 hours or SILCO SUMMA canisters and analyzed within 72 hours.

ASTM Method 5504: Sampling for H_2S and Sulfur species in fuels. Sampling consisted of collecting biogas for sulfur analysis in pre-evacuated 5-Liter SILCO SUMMA canisters with pre-set flow controllers set to integrate over the desired test duration. The SILCO canisters have a silanized (glass) lining that permits longer holding times (up to 72 hours) for reactive sulfur compounds. The flow controller, valve and canister are designed so that no sample contacts stainless steel components that can remove hydrogen sulfide. The flow controllers consisted of capillary orifice tubing designed to sample for pre-set durations such as 1-hr, 2-hrs and 4-hrs. The samples were analyzed for 20 sulfur compounds by ASTM Method D-5504 GC/SCD (gas chromatography/sulfur chemiluminescent detector).

Concurrent with the exhaust sampling, Blue Sky collected a total of six SILCO canisters of the LFG for analysis. The samples were integrated over each run period. The samples were collected in 5-Liter Tedlar bags and immediately transferred into the 6L pre-pad SILCO SUMMA canisters. All the samples were analyzed for NMOC, HHV, F-Factor, Fixed Gases, Sulfur Species (including H_2S and TRS).

The inlet volumetric flow rate was continuously measured and recorded by the facility LFG Flowmeter.

3.5. Instrumentation and Analytical procedures

The following continuous emissions analyzers were used:

Instrumentation	Parameter	Principle
TECO 42i	NO_X	Chemiluminescence
TECO 48C	CO	GFC/IR
Ratfisch RS55	THC	FID
Servomex 1440	CO_2	IR
Servomex 1440	O_2	Paramagnetic

All calibration gases are EPA Protocol #1. The analyzer data recording system consists of an Omega 0595 3-pen channel strip chart recorder, supported by a Data Acquisition System (DAS).

The instrument response was recorded on strip charts, but the analyzer data collected on the DAS was used for reporting the results. The averages were corrected for drift using BAAQMD & EPA Method 7E equations.

Methane was not determined as the THC was well below the Permit Limit for NMOC and within 1-2 ppm of the system detection Limit of 1 ppm.

3.6. Comments: Limitations and Data Qualifications

Blue Sky Environmental has reviewed this report for accuracy, and concluded that the test procedures were followed and accurately described and documented. The review included the following items:

Review of the general text
Review of calculations
Review of CEMS data
Review of supporting documentation

The services described in this report were performed in a manner consistent with the generally accepted professional testing principles and practices. No other warranty, expressed or implied, is made. These services were performed in a manner consistent with our agreement with our client. The report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions contained in this report pertain to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and operating parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations, subsequent to this, and do not warranty the accuracy of information supplied by others.

SECTION 4. APPENDICES

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A
Tabulated Results

TABLE #1

GUADALUPE
Flare A-14
1,658°F - Condensate On

RUN	**1**	**2**	**3**	**AVERAGE**	**LIMITS**
Test Date	2/26/20	2/26/20	2/26/20		
Test Time	0828-0910	0931-1012	1030-1110		
Standard Temp., °F	70	70	70		
Flare Temperature, °F Average	1,658	1,658	1,659	1,658	
Condensate Injection, gpm	1.12	1.11	1.13	1.12	
Fuel Flow Rate, SCFM	2,037	2,058	2,079	2,058	
Fuel Heat Input, MMBTU/Hr	54.8	54.2	53.7	54.2	
Exhaust Flow Rate, DSCFM (Method 19)	19,797	20,202	19,679	19,893	
Oxygen, O_2, %	11.51	11.81	11.65	11.65	
Carbon Dioxide, CO_2, %	8.20	8.19	8.33	8.24	
Water Vapor, H_2O, % M4.16	5.0	4.8	4.9	4.9	
NOx, ppm	15.3	15.9	16.0	15.7	
NOx, ppm @ 15% O_2	**9.6**	**10.3**	**10.2**	**10.0**	**15**
NOx, lbs/hr	2.16	2.30	2.25	2.24	
CO, ppm	<2.0	<2.0	<2.0	<2.0	
CO, ppm @ 15% O_2	**<1.3**	**<1.3**	**<1.3**	**<1.3**	**81**
CO, lbs/hr	<0.17	<0.18	<0.17	<0.17	
TRS as H_2S, ppm in Fuel	**651**	**725**	**709**	**695**	
SO_2, ppm Exhaust (calculated)	**67.0**	**73.9**	**74.9**	**71.9**	**300**
THC, ppm (25A) wet	1.8	1.6	<1.0	1.5	
THC, ppm dry	1.9	1.7	<1.1	1.5	
THC, lbs/hr as CH_4	0.092	0.085	<0.051	0.076	
CH_4, ppm	1.9	1.7	<1.1	1.5	
CH_4, lbs/hr	0.092	0.085	<0.051	0.076	
TNMHC, ppm as CH_4	1.9	1.7	<1.1	1.5	
TNMHC, lbs/hr as CH_4	0.092	0.085	<0.051	0.076	
TNMHC, ppm @ 3% O_2 as CH_4	**3.5**	**3.3**	**<2.0**	**3.0**	**30**
INLET TNMOC (Method 25C)	1,932	2,205	2,271	2,136	
INLET NMOC lbs/hr as CH_4	9.8	11.3	11.7	10.9	**or**
NMOC Removal Efficiency	**99.06%**	**99.24%**	**99.56%**	**99.29%**	**98**
INLET CH_4, ppm	450,000	440,000	432,000	440,667	
INLET CH_4 lbs/hr	2,275.5	2,247.9	2,229.5	2,251	
CH_4 Removal Efficiency	**>99.996%**	**>99.996%**	**>99.998%**	**>99.997%**	**99**
INLET THC (TOC) ppm as CH_4	451,932	442,205	434,271	442,803	
INLET THC (TOC) lbs/hr as CH_4	2,285	2,259	2,241	2,262	
THC (TOC) Removal Efficiency	**99.996%**	**99.996%**	**99.998%**	**99.997%**	

< Value = 2% of Analyzer Range

WHERE,

ppm = Parts Per Million Concentration
Lbs/hr = Pound Per Hour Emission Rate
Tstd. = Standard Temp. (°R = °F+460)
MW = Molecular Weight
DSCFM = Dry Standard Cubic Feet Per Minute
NOx = Oxides of Nitrogen as NO_2 (MW = 46)
CO = Carbon Monoxide (MW = 28)
TOC = THC = Total Organic Carbon as Methane including CH_4 (MW = 16)
THC = Total Hydrocarbons as Methane (MW = 16)
NMOC = Total Non-Methane Organic Carbon as Methane (MW = 16)
SO_2 = Sulfur Dioxide as SO_2 (MW = 64.1)

CALCULATIONS,

PPM @ 15% O_2 = ppm * 5.9 / (20.9 - %O_2)
PPM @ 3% O_2 = ppm * 17.9 / (20.9 - %O_2)
Lbs/hr = ppm x 8.223 E-05 x DSCFM x MW / Tstd. °R
Lbs/day = Lbs/hr * 24
Removal Efficiency = (inlet lbs/hr- outlet lbs/hr) / inlet lbs/hr
SO_2 emission ppm = H2S in fuel * Fuel Flow/Stack Gas Flow

TABLE #2

GUADALUPE
Flare A-14
1,658°F - Condensate OFF

RUN	**1**	**2**	**3**	**AVERAGE**	**LIMITS**
Test Date	2/26/20	2/26/20	2/26/20		
Test Time	1215-1254	1313-1352	1414-1454		
Standard Temp., °F	70	70	70		
Flare Temperature, °F Average	1,658	1,658	1,659	1,658	
Condensate Injection, gpm	0.00	0.00	0.00	0.00	
Fuel Flow Rate, SCFM	2,004	2,044	2,017	2,022	
Fuel Heat Input, MMBTU/Hr	54.0	50.8	53.8	52.8	
Exhaust Flow Rate, DSCFM (Method 19)	18,734	19,110	20,383	19,409	
Oxygen, O_2, %	11.15	11.90	11.93	11.66	
Carbon Dioxide, CO_2, %	5.05	7.62	8.19	6.95	
Water Vapor, H_2O, % M4.16	5.1	4.8	4.7	4.9	
NOx, ppm	13.7	13.5	13.4	13.5	
NOx, ppm @ 15% O_2	**8.3**	**8.8**	**8.8**	**8.6**	**15**
NOx, lbs/hr	1.84	1.84	1.95	1.87	
CO, ppm	6.0	8.1	5.1	6.4	
CO, ppm @ 15% O_2	**3.6**	**5.3**	**3.4**	**4.1**	**81**
CO, lbs/hr	0.49	0.67	0.46	0.54	
TRS as H_2S, ppm in Fuel	**389**	**384**	**508**	**427**	
SO_2, ppm Exhaust (calculated)	**41.6**	**41.1**	**50.3**	**44.3**	**300**
THC, ppm (25A) wet	<1.0	<1.0	<1.0	<1.0	
THC, ppm dry	<1.1	<1.1	<1.0	<1.1	
THC, lbs/hr as CH_4	<0.049	<0.050	<0.053	<0.051	
CH_4, ppm	<1.1	<1.1	<1.0	<1.1	
CH_4, lbs/hr	<0.049	<0.050	<0.053	<0.051	
TNMHC, ppm as CH_4	<1.1	<1.1	<1.0	<1.1	
TNMHC, lbs/hr as CH_4	<0.049	<0.050	<0.053	<0.051	
TNMHC, ppm @ 3% O_2 as CH_4	**<1.9**	**<2.1**	**<2.1**	**<2.0**	**30**
INLET TNMOC (Method 25C)	2,243	2,186	2,559	2,329	
INLET NMOC lbs/hr as CH_4	11.2	11.1	12.8	11.7	**or**
NMOC Removal Efficiency	**99.56%**	**99.55%**	**99.59%**	**99.57%**	**98**
INLET CH_4, ppm	450,000	415,000	446,000	437,000	
INLET CH_4 lbs/hr	2,238.6	2,105.7	2,233.1	2,193	
CH_4 Removal Efficiency	**>99.998%**	**>99.998%**	**>99.998%**	**>99.998%**	**99**
INLET THC (TOC) ppm as CH_4	452,243	417,186	448,559	439,329	
INLET THC (TOC) lbs/hr as CH_4	2,250	2,117	2,246	2,204	
THC (TOC) Removal Efficiency	**99.998%**	**99.998%**	**99.998%**	**99.998%**	

< Value = 2% of Analyzer Range

WHERE,

ppm = Parts Per Million Concentration
Lbs/hr = Pound Per Hour Emission Rate
Tstd. = Standard Temp. (°R = °F+460)
MW = Molecular Weight
DSCFM = Dry Standard Cubic Feet Per Minute
NOx = Oxides of Nitrogen as NO_2 (MW = 46)
CO = Carbon Monoxide (MW = 28)
TOC = THC = Total Organic Carbon as Methane including CH_4 (MW = 16)
THC = Total Hydrocarbons as Methane (MW = 16)
NMOC = Total Non-Methane Organic Carbon as Methane (MW = 16)
SO_2 = Sulfur Dioxide as SO_2 (MW = 64.1)

CALCULATIONS,

PPM @ 15% O_2 = ppm * 5.9 / (20.9 - $\%O_2$)
PPM @ 3% O_2 = ppm * 17.9 / (20.9 - $\%O_2$)
Lbs/hr = ppm x 8.223 E-05 x DSCFM x MW / Tstd. °R
Lbs/day = Lbs/hr * 24
Removal Efficiency = (inlet lbs/hr- outlet lbs/hr) / inlet lbs/hr
SO_2 emission ppm = H2S in fuel * Fuel Flow/Stack Gas Flow