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GUADALUPE RUBBISH DISPOSAL CO., INC.
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April 28, 2021

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 October 1, 2020 through March 31, 2021 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

October 1, 2020 through March 31, 2021

Submitted on:
April 28, 2021

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

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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 October 1, 2020 through March 31, 2021. 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 10, 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 October 1, 2020 through March 31, 2021. 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 2020 calendar year from January 1, 2020 through December 31, 2020, was 85.1 hours, out of an allowable 240 hours per year. The total downtime for the reporting period of October 1, 2020 through March 31, 2021 was 48.7 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 fifteen (15) 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 flare (A-14), which began operation in November 2016. The stack on flare A-14 was replaced with a new stack in October 2021. Based on the correspondence with the BAAQMD, flare A-14 is now designated as flare A-17. The control system was not bypassed at any time during the reporting period by operating combination of flare A-9 or flare A-14/A-17. Raw LFG was not emitted during the reporting period. The SSM logs for the flare A-9 and flare A-14/A-17 are located in Appendix E. As indicated in Section 2.1.1, the total downtime for 2020 calendar year from January 1, 2020 through December 31, 2020, was 85.1 hours, out of an allowable 240 hours per year. The total downtime for the reporting period of October 1, 2020 through March 31, 2021 was 48.7 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/A-17. Appendix F contains the Flare Temperature Deviation/ Inoperative Monitor/Missing Data Report for October 1, 2020 through March 31, 2021.

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

The cover integrity monitoring was performed on the following dates:

- October 30,2020
- November 30,2020
- December 22, 2020
- January 27, 2021

- February 25, 2021
- March 14 and 24, 2021

During the reporting period, on March 14, 2021, technician requested additional soil at one location as part best management practice. The corrective action was initiated, and area was remediated by adding soil to the area on March 24, 2021. No other areas of concern were found during the monitoring event. 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:

- Fourth Quarter 2020 – October 20, 2020
- First Quarter 2021– February 25, 2021

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 Fourth Quarter 2020 SEM was conducted by Roberts Environmental Services (RES) on October 20, 2020, identifying 10 exceedance locations. GRDF personnel performed the ten-day re-monitoring on October 23, 2020. GRDF personnel performed the thirty-day follow-up monitoring event on November 17, 2020. No exceedances were observed during the 30-day re-monitoring events. Detailed monitoring results are available in the Fourth Quarter 2020 SEM Report, included in Appendix H.

The Initial monitoring event for the First Quarter 2021 SEM was conducted by Roberts Environmental Services (RES) on February 25, 2021, identifying 5 exceedance locations. GRDF personnel performed the first ten-day re-monitoring on March 3, 2021 with no exceedance identified. GRDF personnel performed the thirty-day follow-up monitoring event on March 22, 2021. No exceedances were observed during the 30-day re-monitoring events. Detailed monitoring results are available in the First Quarter 2021 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:

- Fourth Quarter 2020 – October 20, 2020
- First Quarter 2021- February 25, 2021

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 October 1, 2020 through March 31, 2021. 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 (Decomposable)
Total Waste Acceptance October 1, 2020 through March 31, 2021	57,921
Current Waste In Place as March 31, 2021	Approximately 9.82 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 October 1, 2020 through March 31, 2021 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:

- October 5, 7, 8, 9 and 10, 2020
- November 12, 25, 27, 28 and 30, 2020
- December 3, 10, 11, 14, 16, 17 and 18, 2020
- January 1, 4, 13, 18, and 19, 2021
- February 8, 9, 15, 16, 18 and 24, 2021
- March 2, 3, 5, 11, 16, 17, 22 and 23, 2021

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

There were thirteen (13) well deviations with readings that exceeded limits per BAAQMD Regulation 8-34-305 during the reporting period. Well 147 had pressure exceedance during March 2021 monitoring event. Corrective actions have been initiated and plans to repair Well 147 are in progress. All other 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 March 31, 2021, the following list of wells are approved to operate at a temperature HOV of 145°F: Wells 114, 122, 134, 135, 146, 151, 152, 154, 156, 158, 161, 162, 180, 181, 185, 186, 188, 189, 204, 205, 207, 213, 215, and 216. 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 October 1, 2020 through March 31, 2021.

Table 2-3 below is a summary of the total LFG flow for the reporting period of October 1, 2020 through March 31, 2021.

Table 2-3 Total LFG Flow for October 1, 2020 through March 31, 2021

Emission Control Device	Average Flow (scfm)	Average CH_4 (%)*	Total LFG Volume (scf)	Total CH_4 Volume (scf)	Heat Input (MMBTU)
A-9 Flare	724	49.9	28,261,196	14,088,220	14,271
A-14/A-17 Flare	1,734	43.9	444,095,308	194,884,564	197,418

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. One well was decommissioned during the reporting period.

As of March 31, 2021, the GRDF has a total 89 collectors, (87 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 SUMMARY

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 10, 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)	<0.5 ppm	<1.6 ppm	30 ppm	In Compliance
NO_x (ppm @ 15% O_2)	8.4	9.5	16	In Compliance
CO (ppm @ 15% O_2)	<3.3	<3.4	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

**Flare A-14 Stack was replaced in October 2021. The new flare designation will be flare A-17.*

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:

- Fourth Quarter 2020 - December 22, 2020
- First Quarter 2021- February 19 and March 19, 2021

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 (October 1, 2020 through March 31, 2021). The following information is included as required:

- During the reporting period, fifteen (15) Wellfield SSM events occurred. Details are included in Appendix D, Well SSM Log.
- During the reporting period, ten (10) 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-one (31) A-17 Flare (formerly designated as Flare A-14) Flare SSM events occurred. The A-17 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, zero (0) monitoring/recorder equipment SSM events occurred. Details are included in Appendix F, Temperature Deviation/Inoperative Monitor/Missing Data Report.
- There were fifty-six (56) 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.***

_____ April 28, 2021___

Signature of Responsible Official **Date**

_____Enrique Perez_____

Name of Responsible Official

APPENDIX A

GCCS MAP

LEGEND

- PROPERTY BOUNDARY
- EXISTING 10' CONTOUR
- EXISTING ABOVEGROUND PIPING
- 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

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SCALE IN FEET

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.

FINAL AS-BUILT

WASTE MANAGEMENT®

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 11/12/2020
DRAWN BY GVP
DESIGNED BY DHK
CHECKED BY AMN
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
2020 GCCS IMPROVEMENTS

AS-BUILT SITE PLAN

SHEET NO. 1
PROJECT NO. 200126

File: X:\PROJECTS\GUADALUPE\200126 – 2020 AS–BUILT UPDATE\Project Drawings\200126–GUADALUPE_2020 AS–BUILT FINAL UPDATE_RevGRD.dwg Layout: S1 User: CHELSEA.EVANS Nov 12, 2020 – 10:22pm

APPENDIX B

GCCS DOWNTIME REPORT

LFG Collection System: October 1, 2020 through March 31, 2021

2020-2021 (Partial) GCCS DOWNTIME LOG

GUADALUPE RECYCLING & DISPOSAL FACILITY, San Jose, CA

SHUTDOWN DATE/ TIME	START-UP DATE/ TIME	TOTAL DOWNTIME (HOURS)	COMMENTS OR REASONS
10/27/20 08:24	10/27/20 09:00	0.6	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
10/30/20 11:58	10/30/20 12:10	0.2	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
10/30/20 19:20	10/30/20 19:22	0.03	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
10/31/20 12:10	10/31/20 12:16	0.1	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
11/02/20 16:10	11/02/20 16:18	0.1	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
11/03/20 02:58	11/03/20 05:36	2.6	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
11/04/20 05:18	11/04/20 10:00	4.7	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
11/05/20 08:20	11/05/20 11:42	3.4	Flare shutdown during KOP inspection and maintenance. Flare was inspected and restarted.
11/06/20 19:46	11/07/20 07:04	11.3	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
11/08/20 00:28	11/08/20 00:44	0.3	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
11/08/20 01:02	11/08/20 01:18	0.3	Flare shutdown during startup sequence. Flare was inspected and restarted.
11/09/20 06:04	11/09/20 06:16	0.2	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
11/09/20 06:18	11/09/20 08:24	2.1	Flare shutdown during startup sequence. Flare was inspected and restarted.
11/09/20 08:38	11/09/20 08:48	0.2	Flare shutdown during startup sequence. Flare was inspected and restarted.
11/09/20 08:58	11/09/20 09:14	0.3	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
11/09/20 09:22	11/09/20 10:04	0.7	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
11/09/20 19:46	11/09/20 20:04	0.3	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
11/09/20 20:16	11/10/20 08:18	12.0	Flare shutdown during startup sequence. Flare was inspected and restarted.
11/10/20 08:52	11/10/20 08:56	0.1	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.
12/31/20 09:50	12/31/20 10:00	0.2	Flare shutdown caused by power surge event. Flare was inspected and restarted.
01/26/21 11:02	01/26/21 11:54	0.9	Flare A-17 was shutdown during inspection and maintenance activities by flare manufacturer. Flare was inspected and restarted.
01/28/21 09:06	01/28/21 11:30	2.4	Flare A-17 was shutdown during inspection and maintenance activities by flare manufacturer. Flare was inspected and restarted.
01/28/21 11:32	01/28/21 12:26	0.9	Flare shutdown during startup sequence. Flare was inspected and restarted.
01/28/21 13:52	01/28/21 14:20	0.5	Flare A-17 was shutdown during inspection and maintenance activities by flare manufacturer. Flare was inspected and restarted.
02/01/21 07:54	02/01/21 09:30	1.6	Flare shutdown during inspection and maintenance on air compressor. Flare was inspected and restarted.
02/18/21 08:24	02/18/21 08:34	0.2	Flare shutdown due to low temperature shutdown caused by incorrect setpoint during initial source test. Flare was inspected and restarted.
03/17/21 08:10	03/17/21 10:52	2.7	Flare shutdown for planned PG&E maintenance. Flare was inspected and restarted.
TOTAL DOWNTIME January 1 through December 31, 2020 (HOURS)		**85.1**	
TOTAL DOWNTIME October 1, 2020 through March 31, 2021 (HOURS)		**48.7**	
TOTAL PERMITTED DOWNTIME FOR 1 YEAR (HOURS):		**240.0**	

APPENDIX C

BAAQMD CORRESPONDENCE

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

March 1, 2021

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

Re: Decommissioning Notification Letter of One Vertical Well
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 decommissioning of one landfill gas (LFG) vertical well 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 collector and respective startup/shutdown dates are listed in the following table:

Well ID	Well Action Type	Applicable Date
Well 149	Decommission	2/23/2021; 12:33 PM

As stated in the most recent July 2, 2020, Well Actions Letter, GRDC had 90 total collectors (88 vertical wells and 2 horizontal collectors) connected to the GCCS.

With the completion of this well action, 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	12	41	1	0
Actions Remaining Under AN 28011	28	29	9	20
Active Well Count After Actions in this Letter	**89 total collectors (87 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.

If you have any questions or concerns please feel free to contact me at (408) 960-0769.

Sincerely,

Guadalupe Rubbish Disposal Co., Inc.

Becky Azevedo
Technical Manager

CC: Enrique Perez, GRDC
Bill Louis, GRDC
Mike Winter, GRDC

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

March 17, 2021

Mr. Raymond Salalila
Air Quality Specialist
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 Mr. Salalila:

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 April 12, 2021 through July 31, 2021, 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 April 12, 2021 through July 31, 2021.

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.

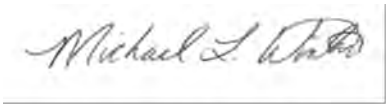
No significant interruption of the current site LFG extraction and control operations is anticipated due to the work. The construction will begin on or around April 12, 2021. We anticipate construction activities to conclude by July 31, 2021.

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.

CONSTRUCTION FOR INSTALLATION AND REPAIR OF LFG PIPING

April 12, 2021 through July 31, 2021

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 excavation, repair of existing pipes and installation of new piping and laterals that will connect to existing LFG extraction wells and to the GCCS.

AFFECTED LANDFILL AREAS

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

AFFECTED LFG COMPONENTS

GRDC will conduct landfill GCCS construction activities in compliance with to maintain compliance with the Rule 8-34-116 and 8-34-117.

Please see below for list of proposed GCCS repairs and installations:

- Installation, repair and tie-ins of piping at wells 147, 204, 151, 153, 124, 235, 154, 186, 193, 237, and 250;
- Installation, repair and tie-ins of piping from well 215 to 217;
- Installation, repair and tie-ins of piping near wells 176 and 233;
- Installation, repair and tie-ins of piping from well 189 to 218;
- Any additional piping that may be required at existing pipes and wells; and
- Cut and cap below grade few surface penetrations that are not active

Pursuant to Rule 8-34-117, GRDC will take the GCCS wells with ID Numbers 147, 204, 151, 153, 124, 235, 154, 186, 193, 237, 250, 215, 217, 176, 233, 189, 205, 191, and 218 and any other well offline, as necessary. GRDC will ensure that no more than 5 gas wells are shut down at any time, and that no gas collection well may be down for more than 24 hours.

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

REASONS FOR ACTIONS

The proposed construction work is intended to:

- Increase LFG collection efficiency by repairing and installation of LFG laterals and piping on existing wells;
- Increase LFG collection efficiency to further reduce the potential surface emissions;

CONSTRUCTION SCHEDULE

The anticipated construction period will be between April 12, 2021 through July 31, 2021. 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 12 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

Proposed Project Location

THREE (3) BURIED 8" ISOLATION VALVES NO LONGER ACCESSIBLE

LEGEND

- PROPERTY BOUNDARY
- EXISTING 10' CONTOUR
- EXISTING ABOVEGROUND PIPING
- EXISTING BELOWGROUND PIPING
- EXISTING HORIZONTAL COLLECTOR
- EW-3 EXISTING LFG EXTRACTION WELL
- EXISTING REMOTE WELLHEAD
- LGP-04 P-18 EXISTING PROBE
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SCALE IN FEET

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.
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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.

FINAL AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 11/12/2020
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

File: X:\PROJECTS\GUADALUPE\200126 – 2020 AS–BUILT UPDATE\Project Drawings\200126–GUADALUPE_2020 AS–BUILT FINAL UPDATE_RevGRD.dwg Layout: S1 User: CHELSEA.EVANS Nov 12, 2020 – 10:22pm

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 - October 1, 2020 Through March 31, 2021

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:214 Startup Event X Shutdown Event Malfunction Event	9/14/20 11:10	9/14/20 11:12	0.03	603 hours (25 days)	Well Located in Active Filling Area. Well Raised.	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	9/14/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:214 X Startup Event Shutdown Event Malfunction Event	10/9/20 14:10	10/9/20 14:12	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	10/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:158 Startup Event X Shutdown Event Malfunction Event	10/13/20 9:30	10/13/20 9:32	0.03	1,153 hours (48 days)	Well Located in Active Filling Area. Well Raised.	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	10/13/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:158 X Startup Event Shutdown Event Malfunction Event	11/30/20 10:45	11/30/20 10:47	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	11/30/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:219 Startup Event X Shutdown Event Malfunction Event	12/2/20 11:25	12/2/20 11:27	0.03	23 hours (1 days)	Offline during fire investigation. CO monitoring was conducted and no values were above 100 ppm.	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection 118: Construction Activities	12/2/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:219 X Startup Event Shutdown Event Malfunction Event	12/3/20 10:30	12/3/20 10:32	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection 118: Construction Activities	12/3/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:177 Startup Event X Shutdown Event Malfunction Event	12/2/20 15:07	12/2/20 15:09	0.03	20 hours (1 days)	Well Located in Active Filling Area. Well Raised.	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	12/2/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:177 X Startup Event Shutdown Event Malfunction Event	12/3/20 10:45	12/3/20 10:47	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	12/3/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:173 Startup Event X Shutdown Event Malfunction Event	12/26/20 7:20	12/26/20 7:22	0.03	6 hours (0.2 days)	Offline during fire investigation. CO monitoring was conducted and no values were above 100 ppm.	113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection 118: Construction Activities	12/26/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:173 X Startup Event Shutdown Event Malfunction Event	12/26/20 13:00	12/26/20 13:02	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection 118: Construction Activities	12/26/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:124 Startup Event X Shutdown Event Malfunction Event	1/2/21 8:00	1/2/21 8:02	0.03	53 hours (2 days)	Well Located in Active Filling Area. Well Raised.	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	1/2/2021	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:124 X Startup Event Shutdown Event Malfunction Event	1/4/21 13:30	1/4/21 13:32	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	1/4/2021	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:162 Startup Event X Shutdown Event Malfunction Event	1/21/21 13:45	1/21/21 13:47	0.03	1,465 hours (61 days)	Well Located in Active Filling Area. Well Raised.	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	1/21/2021	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:162 X Startup Event Shutdown Event Malfunction Event	3/23/21 14:55	3/23/21 14:57	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	3/23/2021	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:149 Startup Event X Shutdown Event Malfunction Event	8/26/20 11:00	8/26/20 11:02	0.03	4,346 hours (181 days)	Well was decommissioned pursuant to PTO Condition #6188.	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	8/26/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:149 Startup Event X Shutdown Event Malfunction Event	2/23/21 12:33	2/23/21 12:35	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities		X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:122 Startup Event X Shutdown Event Malfunction Event	3/9/21 11:30	3/9/21 11:32	0.03	72 hours (3 days)	Well Located in Active Filling Area. Well Raised.	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	3/9/2021	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:122 X Startup Event Shutdown Event Malfunction Event	3/12/21 11:35	3/12/21 11:37	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	3/12/2021	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:209 Startup Event X Shutdown Event Malfunction Event	3/9/21 11:30	3/9/21 11:32	0.03	72 hours (3 days)	Well Located in Active Filling Area. Well Raised.	113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	3/9/2021	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Well ID Number:209 Startup Event Shutdown Event Malfunction Event	3/12/21 11:45	3/12/21 11:47	0.03			113: Inspection and Maintenance X 116: Well Raising 117: Gas Collection 118: Construction Activities	3/12/2021	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X 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 - October 1, 2020 Through March 31, 2021

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:213						113: Inspection and Maintenance		X Manual (Go to Section 9)		Yes (Go to Section 11)	Yes (Go to Section 12)	
Startup Event	3/12/21 12:00	3/12/21 12:02	0.03	2 hours (0.06 days)	Well Located in Active Filling Area. Well Raised.	X 116: Well Raising	3/12/2021		Procedure No. 1 to 3			
X Shutdown Event						117: Gas Collection		Automatic (Go to Section 11)		X No (Stop)	No (Stop)	
Malfunction Event						118: Construction Activities						
Well ID Number:213						113: Inspection and Maintenance		X Manual (Go to Section 9)		Yes (Go to Section 11)	Yes (Go to Section 12)	
X Startup Event	3/12/21 13:30	3/12/21 13:32	0.03			X 116: Well Raising	3/12/2021		Procedure No. 1 to 4			
Shutdown Event						117: Gas Collection		Automatic (Go to Section 11)		X No (Stop)	No (Stop)	
Malfunction Event						118: Construction Activities						
Well ID Number:178						113: Inspection and Maintenance		X Manual (Go to Section 9)		Yes (Go to Section 11)	Yes (Go to Section 12)	
Startup Event	3/12/21 14:00	3/12/21 14:02	0.03	237 hours (10 days)	Well Located in Active Filling Area. Well Raised.	X 116: Well Raising	3/12/2021		Procedure No. 1 to 3			
X Shutdown Event						117: Gas Collection		Automatic (Go to Section 11)		X No (Stop)	No (Stop)	
Malfunction Event						118: Construction Activities						
Well ID Number:178						113: Inspection and Maintenance		X Manual (Go to Section 9)		Yes (Go to Section 11)	Yes (Go to Section 12)	
X Startup Event	3/22/21 11:18	3/22/21 11:20	0.03			X 116: Well Raising	3/22/2021		Procedure No. 1 to 4			
Shutdown Event						117: Gas Collection		Automatic (Go to Section 11)		X No (Stop)	No (Stop)	
Malfunction Event						118: Construction Activities						
Well ID Number:214						113: Inspection and Maintenance		X Manual (Go to Section 9)		Yes (Go to Section 11)	Yes (Go to Section 12)	
Startup Event	3/19/21 11:05	3/19/21 11:07	0.03	301 hours (13 days)	Well Located in Active Filling Area. Well Raised.	X 116: Well Raising	3/19/2021		Procedure No. 1 to 3			
X Shutdown Event						117: Gas Collection		Automatic (Go to Section 11)		X No (Stop)	No (Stop)	
Malfunction Event						118: Construction Activities						
Well ID Number:214						113: Inspection and Maintenance		X Manual (Go to Section 9)		Yes (Go to Section 11)	Yes (Go to Section 12)	
Startup Event	3/31/21 23:59	4/1/21 0:01	0.03			X 116: Well Raising	3/31/2021		Procedure No. 1 to 4			
Shutdown Event						117: Gas Collection		Automatic (Go to Section 11)		X No (Stop)	No (Stop)	
Malfunction Event						118: Construction Activities						
Well ID Number:161						113: Inspection and Maintenance		X Manual (Go to Section 9)		Yes (Go to Section 11)	Yes (Go to Section 12)	
Startup Event	3/19/21 12:05	3/19/21 12:07	0.03	300 hours (12 days)	Well Located in Active Filling Area. Well Raised.	X 116: Well Raising	3/19/2021		Procedure No. 1 to 3			
X Shutdown Event						117: Gas Collection		Automatic (Go to Section 11)		X No (Stop)	No (Stop)	
Malfunction Event						118: Construction Activities						
Well ID Number:161						113: Inspection and Maintenance		X Manual (Go to Section 9)		Yes (Go to Section 11)	Yes (Go to Section 12)	
Startup Event	3/31/21 23:59	4/1/21 0:01	0.03			X 116: Well Raising	3/31/2021		Procedure No. 1 to 4			
Shutdown Event						117: Gas Collection		Automatic (Go to Section 11)		X No (Stop)	No (Stop)	
Malfunction Event						118: Construction Activities						
Well ID Number:237						113: Inspection and Maintenance		X Manual (Go to Section 9)		Yes (Go to Section 11)	Yes (Go to Section 12)	
Startup Event	8/26/20 11:30	8/26/20 11:32	0.03	5,220 hours (218 days)	Well Located in Active Filling Area. Well Raised.	X 116: Well Raising	8/26/2020		Procedure No. 1 to 3			
X Shutdown Event						117: Gas Collection		Automatic (Go to Section 11)		X No (Stop)	No (Stop)	
Malfunction Event						118: Construction Activities						
Well ID Number:237						113: Inspection and Maintenance		X Manual (Go to Section 9)		Yes (Go to Section 11)	Yes (Go to Section 12)	
Startup Event	3/31/21 23:59	4/1/21 0:01	0.03			X 116: Well Raising	3/31/2021		Procedure No. 1 to 4			
Shutdown Event						117: Gas Collection		Automatic (Go to Section 11)		X No (Stop)	No (Stop)	
Malfunction Event						118: Construction Activities						

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-9 Flare

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - October 1, 2020 Through March 31, 2021

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 X Shutdown Event Malfunction Event	10/08/20 20:36	10/08/20 20:40	0.07	0.20	Flare shutdown due to low temperature alarm. Flare was inspected and restarted on the next day.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/8/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-9 Flare X Startup Event Shutdown Event Malfunction Event	10/08/20 20:48	10/08/20 20:52	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/8/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-9 Flare Startup Event X Shutdown Event Malfunction Event	10/08/20 20:52	10/08/20 20:56	0.07	18.00	Flare shutdown during startup sequence. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/8/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-9 Flare X Startup Event Shutdown Event Malfunction Event	10/09/20 14:52	10/09/20 14:56	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-9 Flare Startup Event X Shutdown Event Malfunction Event	10/09/20 14:56	10/09/20 15:00	0.07	0.17	Flare shutdown during startup sequence. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/9/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-9 Flare X Startup Event Shutdown Event Malfunction Event	10/09/20 15:06	10/09/20 15:10	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-9 Flare Startup Event X Shutdown Event Malfunction Event	10/22/20 08:46	10/22/20 08:50	0.07	0.17	Flare shutdown to install pump. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/22/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component: A-9 Flare X Startup Event Shutdown Event Malfunction Event	10/22/20 08:56	10/22/20 09:00	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/22/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component: A-9 Flare Startup Event X Shutdown Event Malfunction Event	10/22/20 09:24	10/22/20 09:28	0.07	3.23	Flare shutdown during startup sequence. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/22/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-9 Flare X Startup Event Shutdown Event Malfunction Event	10/22/20 12:38	10/22/20 12:42	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/22/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-9 Flare Startup Event X Shutdown Event Malfunction Event	10/22/20 12:46	10/22/20 12:50	0.07	0.07	Flare shutdown during startup sequence. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/22/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-9 Flare X Startup Event Shutdown Event Malfunction Event	10/22/20 12:50	10/22/20 12:54	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/22/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-9 Flare Startup Event X Shutdown Event Malfunction Event	10/26/20 02:04	10/26/20 02:08	0.07	0.17	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/26/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-9 Flare X Startup Event Shutdown Event Malfunction Event	10/26/20 02:14	10/26/20 02:18	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/26/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-9 Flare Startup Event X Shutdown Event Malfunction Event	10/26/20 02:42	10/26/20 02:46	0.07	30.30	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/26/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-9 Flare X Startup Event Shutdown Event Malfunction Event	10/27/20 09:00	10/27/20 09:04	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/27/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-9 Flare Startup Event X Shutdown Event Malfunction Event	10/30/20 09:52	10/30/20 09:56	0.07	0.27	Flare was shutdown to start new flare. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/30/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component: A-9 Flare X Startup Event Shutdown Event Malfunction Event	10/30/20 10:08	10/30/20 10:12	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/30/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component: A-9 Flare Startup Event X Shutdown Event Malfunction Event	10/30/20 10:12	10/30/20 10:16	0.07	3,661.80	Flare was shutdown to start new flare. Stack was replaced on flare A-14 in October 2020.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/30/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component: A-9 Flare Startup Event Shutdown Event Malfunction Event	3/31/21 23:59	4/01/21 00:03	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	4/1/2021	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	

TOTAL DOWNTIME October 1, 2020 to March 31, 2021 (HOURS):	3714.4
TOTAL RUNTIME October 1, 2020 to March 31, 2021 (HOURS):	653.6
TOTAL HOURS October 1, 2020 to March 31, 2021 (HOURS):	4368.0

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: A-17 Flare (previously designated as A-14) Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - October 1, 2020 Through March 31, 2021

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/A-17 Flare Startup Event X Shutdown Event Malfunction Event	10/13/20 10:40	10/13/20 10:44	0.07	0.13	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenanc 116: Well Raising 117: Gas Collection 118: Construction Activities	10/13/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	10/13/20 10:48	10/13/20 10:52	0.07			X 113: Inspection and Maintenanc 116: Well Raising 117: Gas Collection 118: Construction Activities	10/13/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	10/15/20 13:28	10/15/20 13:32	0.07	0.20	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenanc 116: Well Raising 117: Gas Collection 118: Construction Activities	10/15/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	10/15/20 13:40	10/15/20 13:44	0.07			X 113: Inspection and Maintenanc 116: Well Raising 117: Gas Collection 118: Construction Activities	10/15/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	10/19/20 10:36	10/19/20 10:40	0.07	0.10	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/19/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	10/19/20 10:42	10/19/20 10:46	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/19/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	10/22/20 14:08	10/22/20 14:12	0.07	0.13	Flare shutdown during prep for stack swap project. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/22/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	10/22/20 14:16	10/22/20 14:20	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/22/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	10/27/20 08:24	10/27/20 08:28	0.07	57.40	Flare shutdown during stack swap project. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/27/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	10/29/20 17:48	10/29/20 17:58	0.17			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/29/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	10/30/20 11:58	10/30/20 12:02	0.07	0.20	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/30/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	10/30/20 12:10	10/30/20 12:20	0.17			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/30/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	10/30/20 19:20	10/30/20 19:24	0.07	0.03	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/30/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	10/30/20 19:22	10/30/20 19:26	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/30/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	10/31/20 12:10	10/31/20 12:14	0.07	0.10	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/31/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	10/31/20 12:16	10/31/20 12:20	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	10/31/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/02/20 16:10	11/02/20 16:14	0.07	0.13	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/2/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/02/20 16:18	11/02/20 16:22	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/2/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/03/20 02:58	11/03/20 03:02	0.07	2.63	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/3/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/03/20 05:36	11/03/20 05:40	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/3/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/04/20 05:18	11/04/20 05:22	0.07	4.70	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/4/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/04/20 10:00	11/04/20 10:04	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/4/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: A-17 Flare (previously designated as A-14)

Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - October 1, 2020 Through March 31, 2021

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/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/05/20 08:20	11/05/20 08:24	0.07	3.37	Flare shutdown during KOP inspection and maintenance. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/5/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/05/20 11:42	11/05/20 11:46	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/5/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/06/20 19:46	11/06/20 19:50	0.07	11.30	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/6/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/07/20 07:04	11/07/20 07:08	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/7/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/08/20 00:28	11/08/20 00:32	0.07	0.27	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/8/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/08/20 00:44	11/08/20 00:48	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/8/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/08/20 01:02	11/08/20 01:06	0.07	0.27	Flare shutdown during startup sequence. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/8/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/08/20 01:18	11/08/20 01:22	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/8/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/09/20 06:04	11/09/20 06:08	0.07	0.20	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/09/20 06:16	11/09/20 06:20	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/09/20 06:18	11/09/20 06:22	0.07	2.10	Flare shutdown during startup sequence. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/09/20 08:24	11/09/20 08:28	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/09/20 08:38	11/09/20 08:42	0.07	0.17	Flare shutdown during startup sequence. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/09/20 08:48	11/09/20 08:52	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/09/20 08:58	11/09/20 09:02	0.07	0.27	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/09/20 09:14	11/09/20 09:18	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/09/20 09:22	11/09/20 09:26	0.07	0.70	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/09/20 10:04	11/09/20 10:08	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/09/20 19:46	11/09/20 19:50	0.07	0.30	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/09/20 20:04	11/09/20 20:08	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/09/20 20:16	11/09/20 20:20	0.07	12.03	Flare shutdown during startup sequence. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/9/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/10/20 08:18	11/10/20 08:22	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	

CONTROL DEVICE AND GAS COLLECTION SYSTEM DOWNTIME LOG

AFFECTED EQUIPMENT: A-17 Flare (previously designated as A-14) Completed By: Marcus Bernard/Rajan Phadnis

Guadalupe Recycling & Disposal Facility, San Jose, CA
SSMP REPORT - October 1, 2020 Through March 31, 2021

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/A-17 Flare Startup Event X Shutdown Event Malfunction Event	11/10/20 08:52	11/10/20 08:56	0.07	0.07	Flare shutdown due to low temperature alarm. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/10/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	11/10/20 08:56	11/10/20 09:00	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	11/10/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	12/31/20 09:50	12/31/20 09:54	0.07	0.17	Flare shutdown caused by power surge event. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	12/31/2020	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	12/31/20 10:00	12/31/20 10:04	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	12/31/2020	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	1/26/21 11:02	1/26/21 11:06	0.07	0.87	Flare A-17 was shutdown during inspection and maintenance activities by flare manufacturer. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	1/26/2021	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	1/26/21 11:54	1/26/21 11:58	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	1/26/2021	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	1/28/21 09:06	1/28/21 09:10	0.07	2.40	Flare A-17 was shutdown during inspection and maintenance activities by flare manufacturer. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	1/28/2021	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	1/28/21 11:30	1/28/21 11:34	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	1/28/2021	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	1/28/21 11:32	1/28/21 11:36	0.07	0.90	Flare shutdown during startup sequence. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	1/28/2021	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	1/28/21 12:26	1/28/21 12:40	0.23			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	1/28/2021	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	1/28/21 13:52	1/28/21 13:56	0.07	0.47	Flare A-17 was shutdown during inspection and maintenance activities by flare manufacturer. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	1/28/2021	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	1/28/21 14:20	1/28/21 14:24	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	1/28/2021	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	2/01/21 07:54	2/01/21 07:58	0.07	1.60	Flare shutdown during inspection and maintenance on air compressor. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	2/1/2021	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	2/01/21 09:30	2/01/21 09:34	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	2/1/2021	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	2/18/21 08:24	2/18/21 08:28	0.07	0.17	Flare shutdown due to low temperature shutdown caused by incorrect setpoint during initial source test. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	2/18/2021	Manual (Go to Section 9) X Automatic (Go to Section 11)	Procedure No. 1 to 3	Yes (Go to Section 11) No (Stop)	Yes (Go to Section 12) X No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	2/18/21 08:34	2/18/21 08:38	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	2/18/2021	X Manual (Go to Section 9) Automatic (Go to Section 11)	Procedure No. 1 to 4	Yes (Go to Section 11) X No (Stop)	Yes (Go to Section 12) No (Stop)	
Component:A-14/A-17 Flare Startup Event X Shutdown Event Malfunction Event	3/17/21 08:10	3/17/21 08:14	0.07	2.70	Flare shutdown for planned PG&E maintenance. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	3/17/2021	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 3	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	
Component:A-14/A-17 Flare X Startup Event Shutdown Event Malfunction Event	3/17/21 10:52	3/17/21 10:56	0.07			X 113: Inspection and Maintenance 116: Well Raising 117: Gas Collection 118: Construction Activities	3/17/2021	X Manual (Go to Section 8) Automatic (Go to Section 10)	Procedure 1 to 4	Yes (Go to Section 10) X No (Stop)	Yes (Go to Section 11) No (Stop)	

TOTAL DOWNTIME October 1, 2020 to March 31, 2021 (HOURS):	106.1
TOTAL RUNTIME October 1, 2020 to March 31, 2021 (HOURS):	4261.9
TOTAL HOURS October 1, 2020 to March 31, 2021 (HOURS):	4368.0

(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 points)	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 equipment -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 - October 1, 2020 Through March 31, 2021

Flare A-9 and A-17 (previously designated as A-14)

REPORT PREPARED BY: Rajan Phadnis **DATE:** April 1, 2021

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

START DATE & TIME	END DATE & TIME	DURATION (HOURS)	TEMP (^{o}F)/ FLOW (scfm)	CAUSE	EXPLANATION	ACTION TAKEN
No deviations, inoperative monitors, or missing data occurred in October 2020						
No deviations, inoperative monitors, or missing data occurred in November 2020						
No deviations, inoperative monitors, or missing data occurred in December 2020						
No deviations, inoperative monitors, or missing data occurred in Janaury 2021						
No deviations, inoperative monitors, or missing data occurred in February 2021						
No deviations, inoperative monitors, or missing data occurred in March 2021						

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: October 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: November 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: December 22, 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: January 27, 2021
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: February 25, 2021
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: March 14 and March 24, 2021
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)
On March 14, 2021, technician requested additional soil at one location as part best management practice	3/24/2021	The corrective action was initiated and area was remediated by adding soil near well 213

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

APPENDIX H

SURFACE EMISSIONS MONITORING AND COMPONENT LEAK CHECK REPORTS

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

April 12, 2021

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

Re: First Quarter 2021 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 First Quarter 2021 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.

FIRST QUARTER 2021 SEM AND COMPONENT LEAK RESULTS

The following is a summary of the SEM and component leak monitoring results completed for the First Quarter 2021.

Instantaneous Surface Emissions Monitoring Results

The Instantaneous surface monitoring was performed on February 25, 2021 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 5 exceedances of 500 ppm_v as methane detected on February 25, 2021. Corrective actions to initiate repairs of the exceedances were completed within five days for all locations (February 25, 2021).

Ten-Day Re-Monitoring Results

The 10-day re-monitoring event was completed on March 3, 2021. All locations were observed at less than 500 ppm_v.

One-Month Re-Monitoring Results

The 1-month re-monitoring event was completed on March 22, 2021. 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 February 24 and 25, 2021, 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 February 24 and 25, 2021.

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 February 25, 2021. 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.

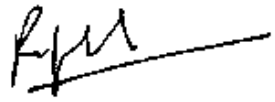
EQUIPMENT CALIBRATION

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 rphadnis@wm.com.

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

2021 QUARTER: 1

PERFORMED BY: RES

LANDFILL NAME: Guadalupe Recycling & Disposal Facility

Flag Number	Grid Number	Date of Monitoring	Concentration of Emission (ppmv)	Comments
25	13	2/25/2021	2,356	Well 207
26	66	2/25/2021	2,643	Well 238
1	90	2/25/2021	2,900	Well 112
41	88	2/25/2021	1,300	Well 230
42	67	2/25/2021	800	Sump 1
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)

2021 QUARTER: 1

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: WM-Markus Bernard

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	Monitoring	Field	Repair	Action taken to repair	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	
Number	Date	Reading	Date	Exceedance	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	**Comments**
25	2/25/2021	2,356 ppm	2/25/2020	Well Adjustment	3/3/2021	37 ppm		3/22/2021	31 ppm		Well 207
26	2/25/2021	2,643 ppm	2/25/2020	Well Adjustment	3/3/2021	41 ppm		3/22/2021	25 ppm		Well 238
1	2/25/2021	2,900 ppm	2/25/2020	Well Adjustment	3/3/2021	6 ppm		3/22/2021	4 ppm		Well 112
41	2/25/2021	1,300 ppm	2/25/2020	Well Adjustment	3/3/2021	8 ppm		3/22/2021	6 ppm		Well 230
42	2/25/2021	800 ppm	2/25/2020	Gasket Seal/ Tighten Bolts	3/3/2021	5 ppm		3/22/2021	11 ppm		Sump 1

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

2021 QUARTER: 1

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: WM-Markus Bernard

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

Initial Monitoring Event			1st Re-mon Event - 10 Days			2nd Re-mon Event - 10 Days			
Exceedance	Monitoring	Field	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	
Grid ID No.	Date	Reading	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	Comments
25	2/25/2021	2,356 ppm	3/3/2021	37 ppm					Well 207
26	2/25/2021	2,643 ppm	3/3/2021	41 ppm					Well 238
1	2/25/2021	2,900 ppm	3/3/2021	6 ppm					Well 112
41	2/25/2021	1,300 ppm	3/3/2021	8 ppm					Well 230
42	2/25/2021	800 ppm	3/3/2021	5 ppm					Sump 1

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

2021 QUARTER: 1

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	Monitoring	Field	Monitoring	Reading	
Grid ID No.	Date	Reading	Date	ppm	
None					

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

2021 QUARTER: 1ST
INITIAL MONITORING PERFORMED BY: RES **Wind MPH: 8** **Wind MPH: 13**
FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard **Wind Direction: NW** **Wind Direction: NW**
LANDFILL NAME: GUADALUPE LANDFILL

Initial Monitoring Event			Corrective action within 5 days		1st 10-day Follow-Up			1st 30-day Follow-Up			Comments
Flag	Monitoring	Field	Repair	Action taken to repair	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	
Number	Date	Reading	Date	Exceedance	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	
O25	2/25/2021	2356 ppm	2/25/2020	Well Adjustment	3/3/2021	37 ppm		3/22/2021	31 ppm		Well 207
O1	2/25/2021	2900 ppm	2/25/2020	Well Adjustment	3/3/2021	6 ppm		3/22/2021	4 ppm		Well 112
O26	2/25/2021	2643 ppm	2/25/2020	Well Adjustment	3/3/2021	41 ppm		3/22/2021	25 ppm		Well 238
O41	2/25/2021	1300 ppm	2/25/2020	Well Adjustment	3/3/2021	8 ppm		3/22/2021	6 ppm		Well 230
O42	2/25/2021	800 ppm	2/25/2020	Gasket Seal/ Tighten Bolts	3/3/2021	5 ppm		3/22/2021	11 ppm		Sump 1

Orange Flag Landfill Surface Emissions Monitoring
Exceedances and Monitoring Log

Site: Eucalyptus

												Page 1 of 1 Pages
Quarter / Year:	1st 2021											
Technician:	Leish Wade											
Instrument:	TVA 1000											
Calibration Standard:	500 ppm											
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	
~~0-~~25	13	2356	2-25-21										Unmonitored well
~~0-~~26	66	2643	↓										well 238
~~0-~~1	90	2900											well 112
~~0-~~41	88	1300											well 230
~~0-~~42	67	800	↓										Blue pipe
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													
0-													

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEISHWADE, JESSE MANNING, _____
OMORPENSEN, _____, _____
NICOLE BENICS, _____, Cal. Gas Exp. Date: 9-21-21

Date: 2-25-21 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 41 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.4

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
1	LW	0550	0605	39	3	5	N	
2	OP	0550	0605	28	3	5	N	
3	ND	0550	0605	41	3	5	N	
4	JM	0555	0605	26	3	5	N	
5	LW	0605	0620	34	3	5	N	
6	OP	0605	0620	19	3	5	N	
7	ND	0605	0620	21	3	5	N	
8	JM	0605	0620	28	3	5	N	
9	LW	0620	0635	51	4	7	N	
10	OP	0620	0635	37	4	7	N	
11	ND	0620	0635	19	4	7	N	
12	JM	0620	0635	31	4	7	N	
13	LW	0635	0650	2356	3	4	N	UNMARKED WELL
16	OP	0635	0650	70	3	4	N	
21	ND	0635	0650	41	3	4	N	
26	JM	0635	0650	38	3	4	N	
31	LW	0650	0705	65	2	4	N	
37	OP	0650	0705	40	2	4	N	
43	ND	0650	0705	72	2	4	N	
47	JM	0650	0705	49	2	4	N	
48	LW	0705	0720	117	2	4	N	
49	OP	0705	0720	51	2	4	N	
50	ND	0705	0720	68	2	4	N	
54	JM	0705	0720	37	2	4	N	
55	LW	0720	0735	41	2	3	N	
59	OP	0720	0735	29	2	3	N	
60	ND	0720	0735	66	2	3	N	
61	JM	0720	0735	28	2	3	N	
64	LW	0735	0750	42	2	3	N	
65	OP	0735	0750	128	2	3	N	

Attach Calibration Sheet
Attach site map showing grid ID

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LOIS / WADE, Jesse Manning, _____
OMAR PORCILLA, _____, _____
Nicole Bemis, _____, Cal. Gas Exp. Date: 9-21-21

Date: 2-25-21 Instrument Used: TA1000 Grid Spacing: 25'

Temperature: 44 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.4

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
66	NB	0735	0750	2643	2	3	8	WELL 238
67	JM	0735	0750	800	2	3	8	BLACKPIPE
69	LW	0750	0805	37	2	3	8	
70	OP	0750	0805	25	2	3	8	
71	NB	0750	0805	32	2	3	8	
72	JM	0750	0805	51	2	3	8	
73	LW	0805	0820	61	2	3	8	
74	OP	0805	0820	34	2	3	8	
75	NB	0805	0820	48	2	3	8	
76	JM	0805	0820	26	2	3	8	
77	LW	0820	0835	41	2	3	8	
78	OP	0820	0835	30	2	3	8	
79	NB	0820	0835	26	2	3	8	
80	JM	0820	0835	54	2	3	8	
81	LW	0835	0850	47	3	5	8	
82	OP	0835	0850	72	3	5	8	
83	NB	0835	0850	56	3	5	8	
84	JM	0835	0850	39	3	5	8	
85	LW	0850	0905	26	4	6	8	
86	OP	0850	0905	73	4	6	8	
87	NB	0850	0905	29	4	6	8	
88	JM	0850	0905	1300	4	6	8	WELL 230
89	LW	0905	0920	36	4	6	8	
90	OP	0905	0920	2900	4	6	8	WELL 112
91	NB	0905	0920	21	4	6	8	
92	JM	0905	0920	29	4	6	8	
93	LW	0920	0935	27	4	6	7	
94	OP	0920	0935	36	4	6	7	
95	NB	0920	0935	21	4	6	7	
96	JM	0920	0935	17	4	6	7	

Attach Calibration Sheet
Attach site map showing grid ID

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GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: Leslie Wade, Jesse Mourning, Omar Peralta, Nick Banks

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

Date: 2-25-21 Instrument Used: TVA 1000 Grid Spacing: 25'

Temperature: 59 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.4

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
97	LW	0935	0950	20	3	4	7	
98	OP	0935	0950	45	3	4	7	
99	ND	0935	0950	32	3	4	7	
100	JM	0935	0950	27	3	4	7	
101	LW	0950	1005	42	3	6	7	
102	OP	0950	1005	30	3	6	7	
103	ND	0950	1005	19	3	6	7	
104	JM	0950	1005	24	3	6	7	
105	LW	1005	1020	27	3	6	7	

Attach Calibration Sheet
Attach site map showing grid ID

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GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEIGHANNE _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 2-25-21 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	
15								Active-Mass
19								
20								
24								
25								
29								
30								
35								
36								
41								
42								
14								steep slopes
17								
18								
22								
27								
32								
38								
44								
51								
56								
23								no waste in place
28								
33								
34								
39								
40								
45								
46								
52								

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 2

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LISA WADE _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

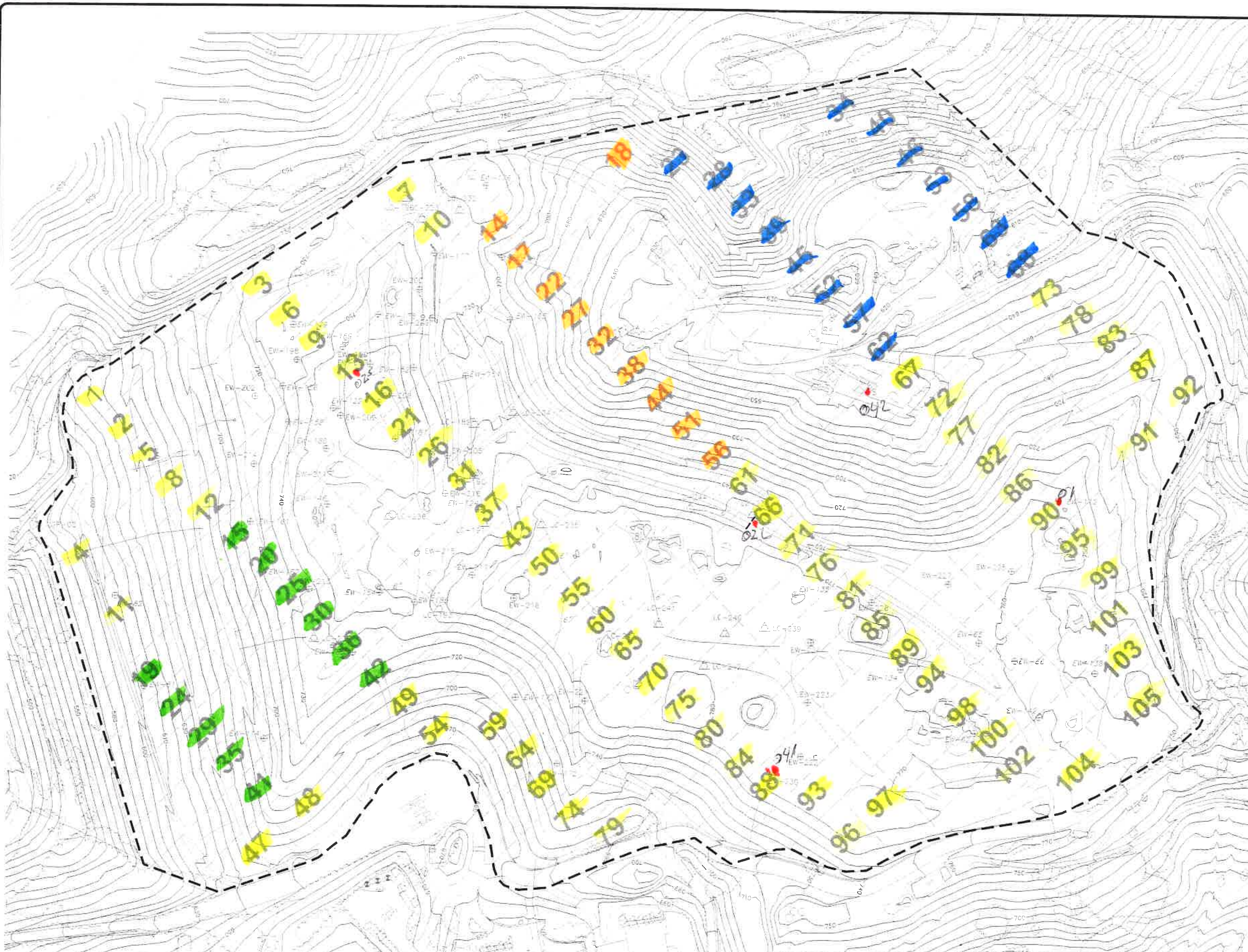
Date: 2-25-21 Instrument Used: _____ Grid Spacing: _____

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	
S3								↓
S7								
S9								
62								
63								
68								

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 2



LEGEND

- PROPERTY BOUNDARY
- APPROXIMATE WASTE FOOTPRINT
- EXISTING 10' CONTOUR
- EXISTING LFG EXTRACTION WELL
- EXISTING REMOTE WELLHEAD
- EXISTING PROBE
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING LOCAL CONTROL WELL
- 105 — SEM GRID BLOCK

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: 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.

Instantaneous 2-25-21

- Grids monitored
- Active areas
- No waste in place
- Steep slopes
- 500ppm

FINAL AS-BUILT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 11/12/2020 — DRAWN BY GVP — DESIGNED BY DHK — CHECKED BY AMN — APPROVED BY PJS

WASTE MANAGEMENT

TETRA TECH

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

SEM GRID MAP

SHEET NO. 3
PROJECT NO. 200126

LEGEND

- PROPERTY BOUNDARY
- APPROXIMATE WASTE FOOTPRINT
- EXISTING 10' CONTOUR
- EXISTING LFG EXTRACTION WELL
- EXISTING REMOTE WELLHEAD
- EXISTING PROBE
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING LOCAL CONTROL WELL
- 105 — SEM GRID BLOCK

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: 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.
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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.
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7. 2020 GCCS IMPROVEMENTS AS-BUILT SURVEY PROVIDED BY F3 AND ASSOCIATES, INC. DATED: JULY 22, 2020.

1st Quarter 2021

- NSPS SWELD
- UPWIND
- DOWNWIND

FINAL AS-BUILT

WASTE MANAGEMENT

REV.	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
	DATE OF ISSUE 11/12/2020	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

SEM GRID MAP

SHEET NO. 3
PROJECT NO. 200126

File: X:\PROJECTS\GUADALUPE\200126 - 2020 AS-BUILT UPDATE\Project Drawings\200126-GUADALUPE_2020 AS-BUILT FINAL UPDATE_Rev0410.dwg Layout: S3 User: CHELSEA.FRANK Nov 12, 2020 - 10:23pm

Attachment B

Integrated Surface Emission Monitoring Event Records

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

2021 QUARTER: 1

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**			
Exceedance	Monitoring	Field	Monitoring	No Exced.	No Exced.	
Grid ID No.	Date	Reading	Date	<25 ppm	>25 ppm	**Comments**
None						

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LOUIS WIOE, JESSE MANNING, OMAR PERALTA, NILIC BENES

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

Date: 2-24-21 Instrument Used: TVA1000 Grid Spacing: _____

Temperature: 62 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.4

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
1	LW	1005	1030	4.70	3	5	N	
2	OP	1005	1030	3.82	3	5	N	
3	ND	1005	1030	3.17	3	5	N	
4	JM	1005	1030	4.51	3	5	N	
5	LW	1030	1055	3.68	3	4	N	
6	OP	1030	1055	3.21	3	4	N	
7	ND	1030	1055	4.50	3	4	N	
8	JM	1030	1055	6.12	3	4	N	
9	LW	1055	1120	5.47	3	5	N	
10	OP	1055	1120	7.18	3	5	N	
11	ND	1055	1120	3.66	3	5	N	
12	JM	1055	1120	5.28	3	5	N	
13	LW	1120	1145	5.57	4	5	N	
16	OP	1120	1145	6.04	4	5	N	
21	ND	1120	1145	6.12	4	5	N	
26	JM	1120	1145	5.67	4	5	N	
31	LW	1145	1210	5.38	3	5	N	
37	OP	1145	1210	7.12	3	5	N	
43	ND	1145	1210	6.45	3	5	N	
47	JM	1145	1210	5.28	3	5	N	
48	LW	1240	1305	5.77	4	8	N	
49	OP	1240	1305	4.32	4	8	N	
50	ND	1240	1305	6.50	4	8	N	
54	JM	1240	1305	5.19	4	8	N	
55	LW	1305	1330	6.10	4	10	N	
59	OP	1305	1330	5.77	4	10	N	
60	ND	1305	1330	4.81	4	10	N	
61	JM	1305	1330	5.99	4	10	N	
64	LW	1330	1355	5.72	4	10	N	
65	OP	1330	1355	6.30	4	10	N	

Attach Calibration Sheet
Attach site map showing grid ID

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEIGH WADE, JESSE MANNING, AMOR PENCIL P, NICK BANKS

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

Date: 2-24-21 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 65 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.4

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
66	NB	1330	1355	4.51	4	10	N	
67	JM	1330	1355	5.17	4	10	N	
69	LW	1355	1420	4.89	4	10	N	
70	OP	1355	1420	6.11	4	10	N	
71	NB	1355	1420	5.71	4	10	N	
72	JM	1355	1420	4.98	4	10	N	
73	LW	1420	1445	5.35	4	10	N	
74	OP	1420	1445	6.80	4	10	N	
75	NB	1420	1445	5.35	4	10	N	
76	JM	1420	1445	6.13	4	10	N	

Attach Calibration Sheet
Attach site map showing grid ID

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: Loshwood _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 2-24-21 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	
24								All vegetation
25								
29								
30								
35								
36								
41								
42								
19								
20								
15								
14								steep slopes
17								
18								
22								
27								
32								
38								
44								
51								
56								
23								NO WASTE IN PLACE
28								
33								
34								
39								
40								
45								
46								
52								

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 2

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEIGHWADE _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 2-24-21 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	
53								
57								
58								
62								
63								
68								

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 2

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: Louis Juarez, Jesse Monroy, omar penaloza, Nick Rojas

Cal. Gas Exp. Date: 8-21-21

Date: 2-25-21 Instrument Used: TVA 1000 Grid Spacing: 25'

Temperature: 66 Precip: 0 Upwind BG: 2.0 Downwind BG: 2.4

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
77	LV	1030	1055	4.50	3	6	7	
78	OP	1030	1055	5.38	3	6	7	
79	JM	1030	1055	6.10	3	6	7	
80	JM	1030	1055	4.70	3	6	7	
81	LV	1055	1120	5.25	2	4	8	
82	OP	1055	1120	5.21	2	4	8	
83	JM	1055	1120	6.07	2	4	8	
84	JM	1055	1120	5.39	2	4	8	
85	LV	1120	1145	5.59	2	3	7	
86	OP	1120	1145	6.17	2	3	7	
87	JM	1120	1145	5.21	2	3	7	
88	JM	1120	1145	4.78	2	3	7	
89	LV	1145	1210	5.28	4	6	7	
90	OP	1145	1210	4.31	4	6	7	
91	JM	1145	1210	5.77	4	6	7	
92	JM	1145	1210	4.60	4	6	7	
93	LV	1240	1305	3.98	4	10	7	
94	OP	1240	1305	5.19	4	10	7	
95	JM	1240	1305	4.67	4	10	7	
96	JM	1240	1305	5.30	4	10	7	
97	LV	1305	1330	5.05	4	6	7	
98	OP	1305	1330	4.77	4	6	7	
99	JM	1305	1330	4.12	4	6	7	
100	JM	1305	1330	3.64	4	6	7	
101	LV	1330	1355	5.31	4	9	7	
102	OP	1330	1355	4.70	4	9	7	
103	JM	1330	1355	5.55	4	9	7	
104	JM	1330	1355	4.01	4	9	7	
105	LV	1355	1420	3.72	4	9	7	

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 1

LEGEND

- PROPERTY BOUNDARY
- APPROXIMATE WASTE FOOTPRINT
- EXISTING 10' CONTOUR
- EXISTING LFG EXTRACTION WELL
- EXISTING REMOTE WELLHEAD
- EXISTING PROBE
- EXISTING HORIZONTAL COLLECTOR WELLHEAD
- EXISTING LOCAL CONTROL WELL
- 105 SEM GRID BLOCK

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: 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.

INTEGRATED 2-24-21 2-25-21

GRIDS MONITORED
ACTIVE-TRUCK
NO WASTE IN PLACE
STEEP SLOPES

FINAL AS-BUILT

WASTE MANAGEMENT

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY
DATE OF ISSUE 11/12/2020		DRAWN BY GVF; DESIGNED BY DHK; CHECKED BY AMN; APPROVED BY PJS				

TETRA TECH

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

SEM GRID MAP

SHEET NO. 3
PROJECT NO. 200126

File: X:\PROJECTS\GUADALUPE\200126 - 2020 AS-BUILT UPDATE\Project Drawings\200126-GUADALUPE_2020 AS-BUILT FINAL UPDATE_8x42D.dwg Layout: S3 User: CHELSEA.PARK Nov 12, 2020 - 10:23pm

Attachment C

Component Leak Monitoring Event Records

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

2021 QUARTER: 1

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	2/25/2021	ND	RES	NA	NA	NA	NA	NA
Flare Station A-14	2/25/2021	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

2021 QUARTER: 1

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	2/25/2021	ND	RES	NA	NA	NA	NA	NA
Flare Station A-14	2/25/2021	ND	RES	NA	NA	NA	NA	NA

ND= Non Exceedances

LANDFILL NAME: Guadalupe

QUARTERLY LFG COMPONENT LEAK MONITORING

INSTRUMENT FID
MAKE: Thermo Environr
MODEL: TVA 1000
S/N: 1036746773

DATE OF SAMPLING: 2-25-21
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 EXCEEDANCE							

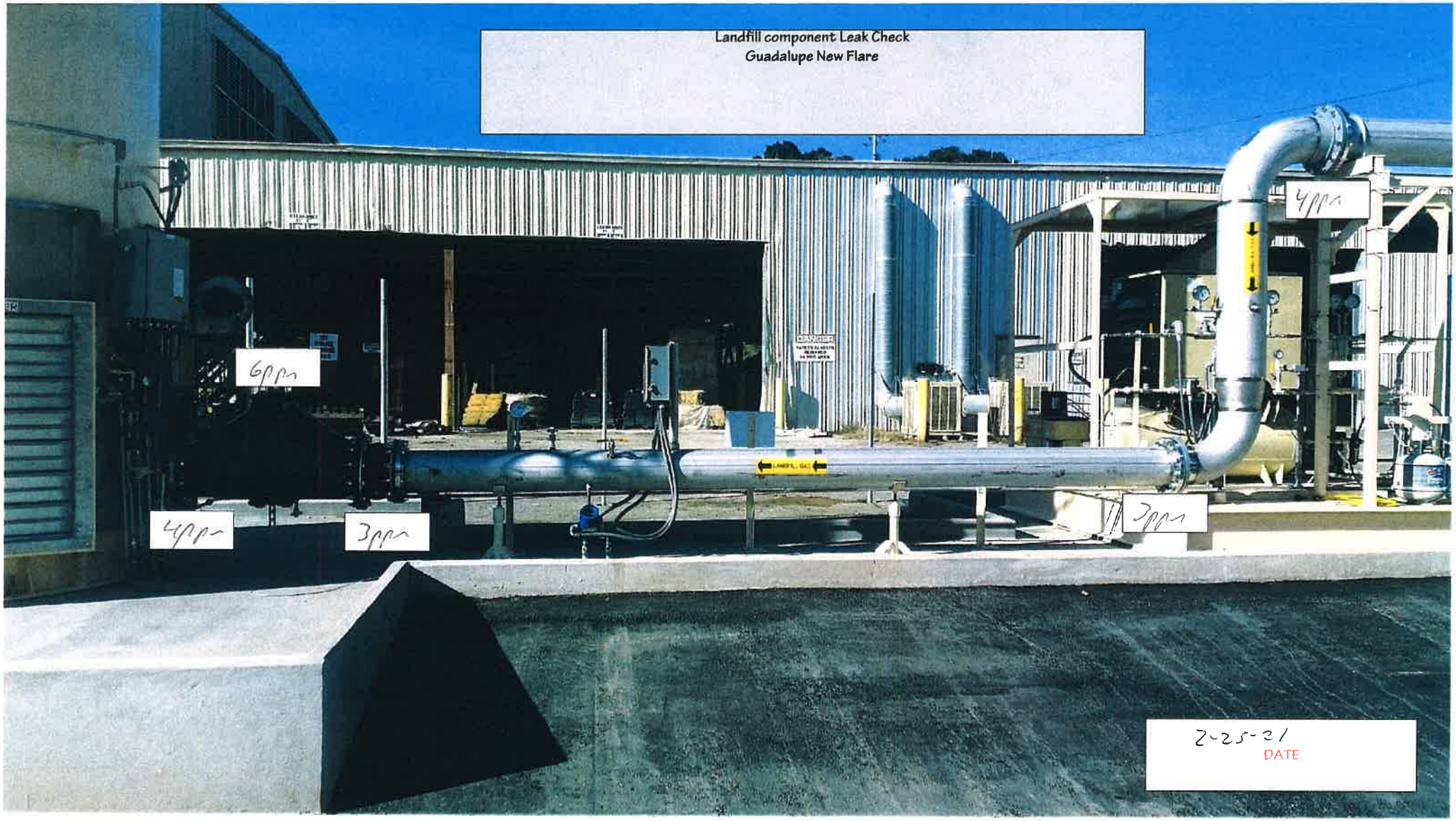
In the event that an exceedance is detected, please intiate corrective action and re-monitor the exceedance location within 7 days of the initial exceedance.

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.

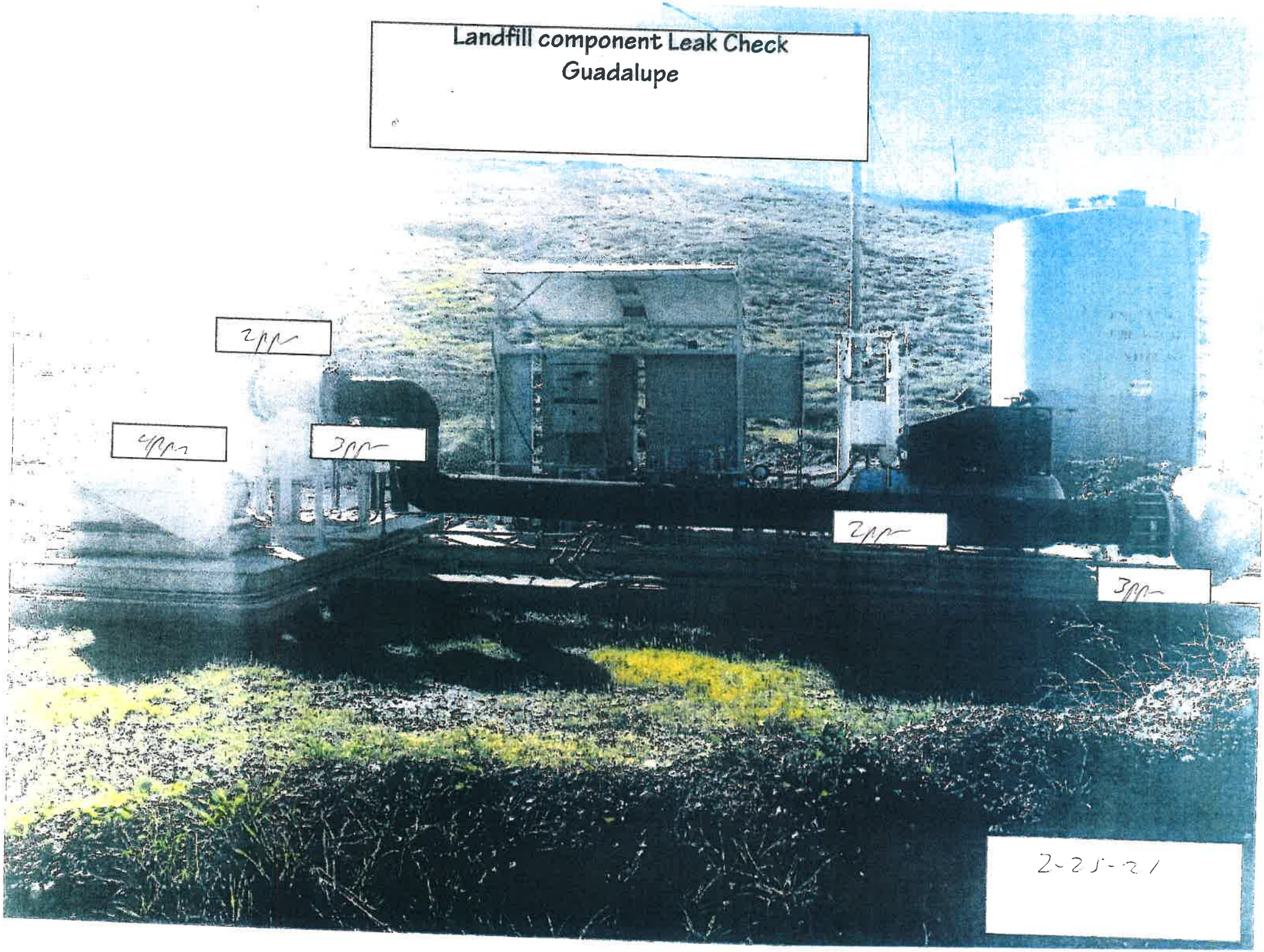

Landfill component Leak Check
Guadalupe New Flare
3ppm
4ppm
10ppm
7ppm
5ppm
7ppm
6ppm
7ppm
3ppm
DANGER
CBI
2-25-21
DATE


Landfill component Leak Check
Guadalupe New Flare
4ppm
4ppm
2-25-21
DATE


Landfill component Leak Check
Guadalupe New Flare
6ppm
4ppm
3ppm
4ppm
3ppm
2-25-21
DATE

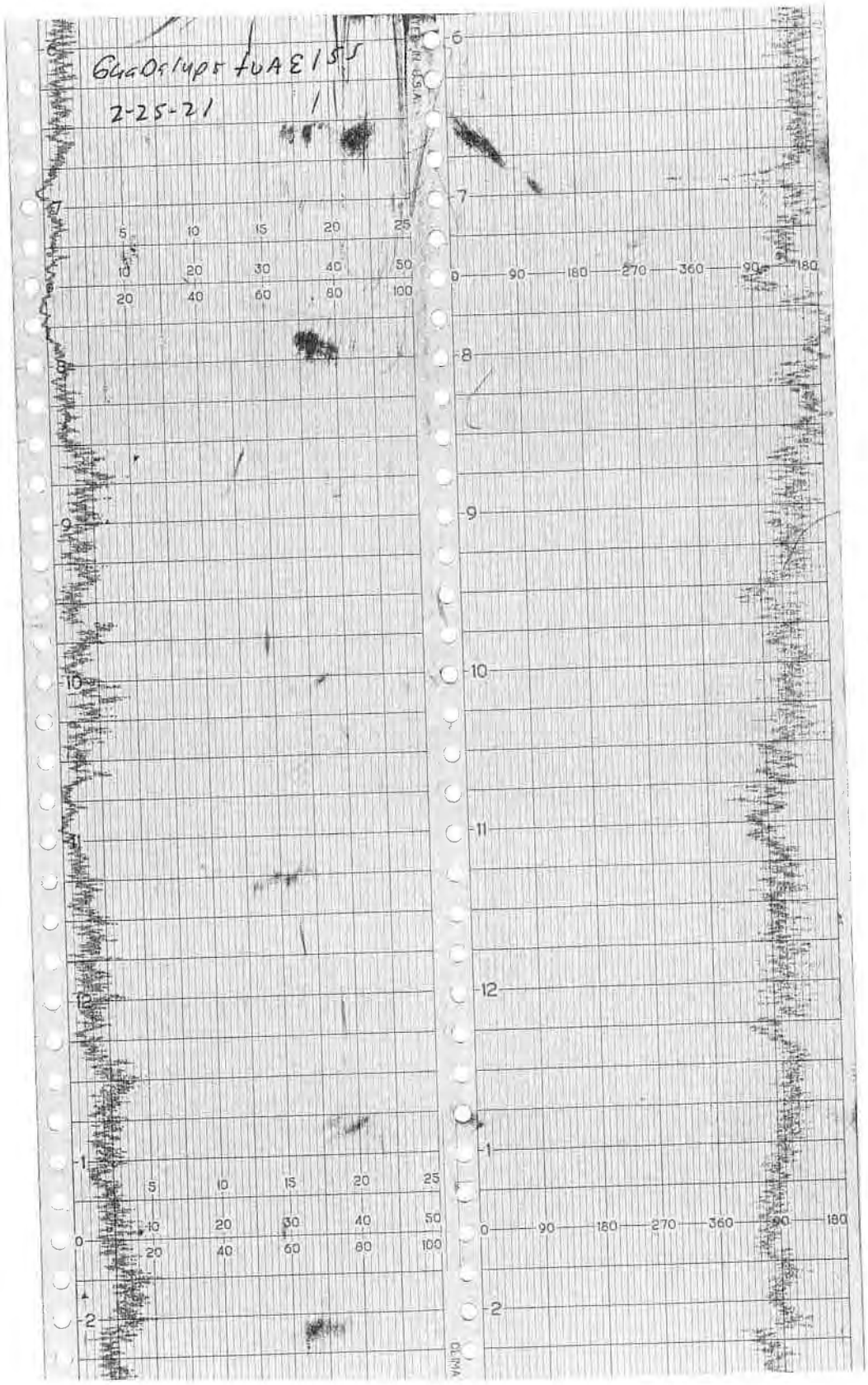

Landfill component Leak Check
Guadalupe
HOT
2ppm
4ppm
2-25-21
DATE


Landfill component Leak Check
Guadalupe
3ppm
3ppm
4ppm
2-25-21
DATE

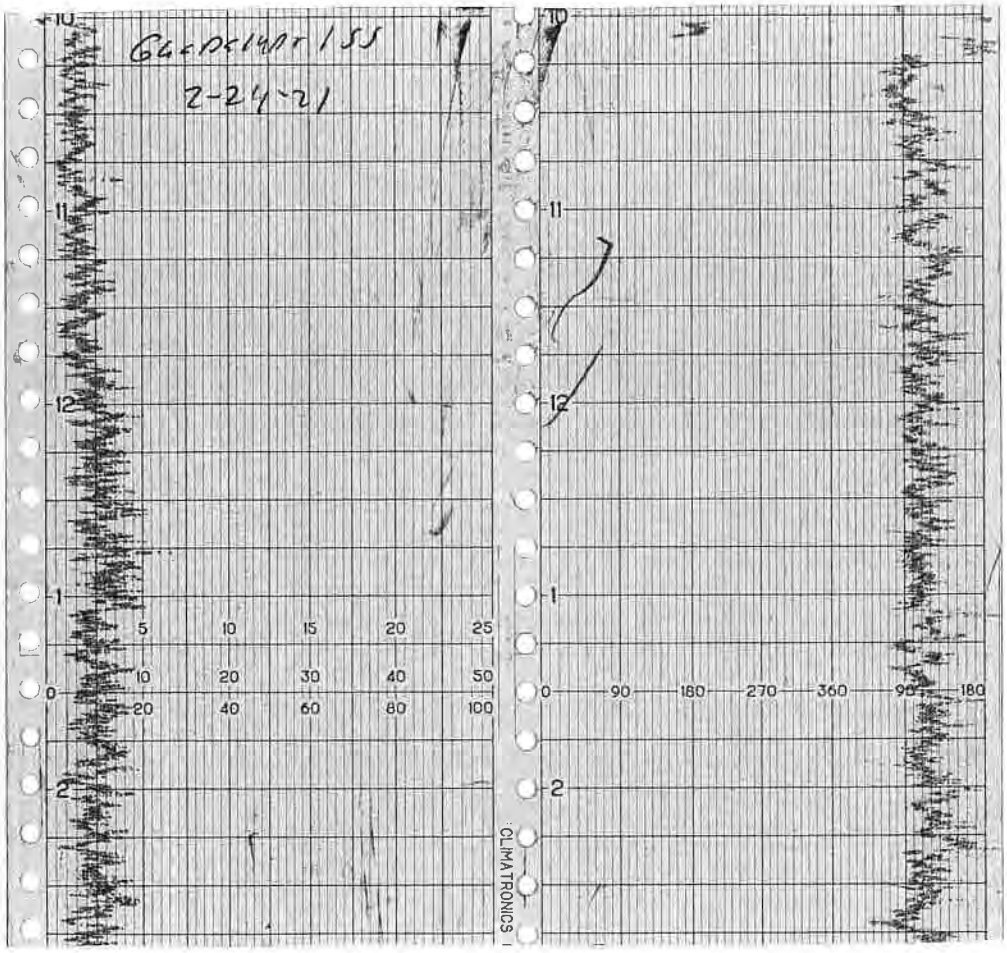

Landfill component Leak Check
Guadalupe
2"
4"
3"
2"
3"
2-25-21

Attachment D
Weather Station Data

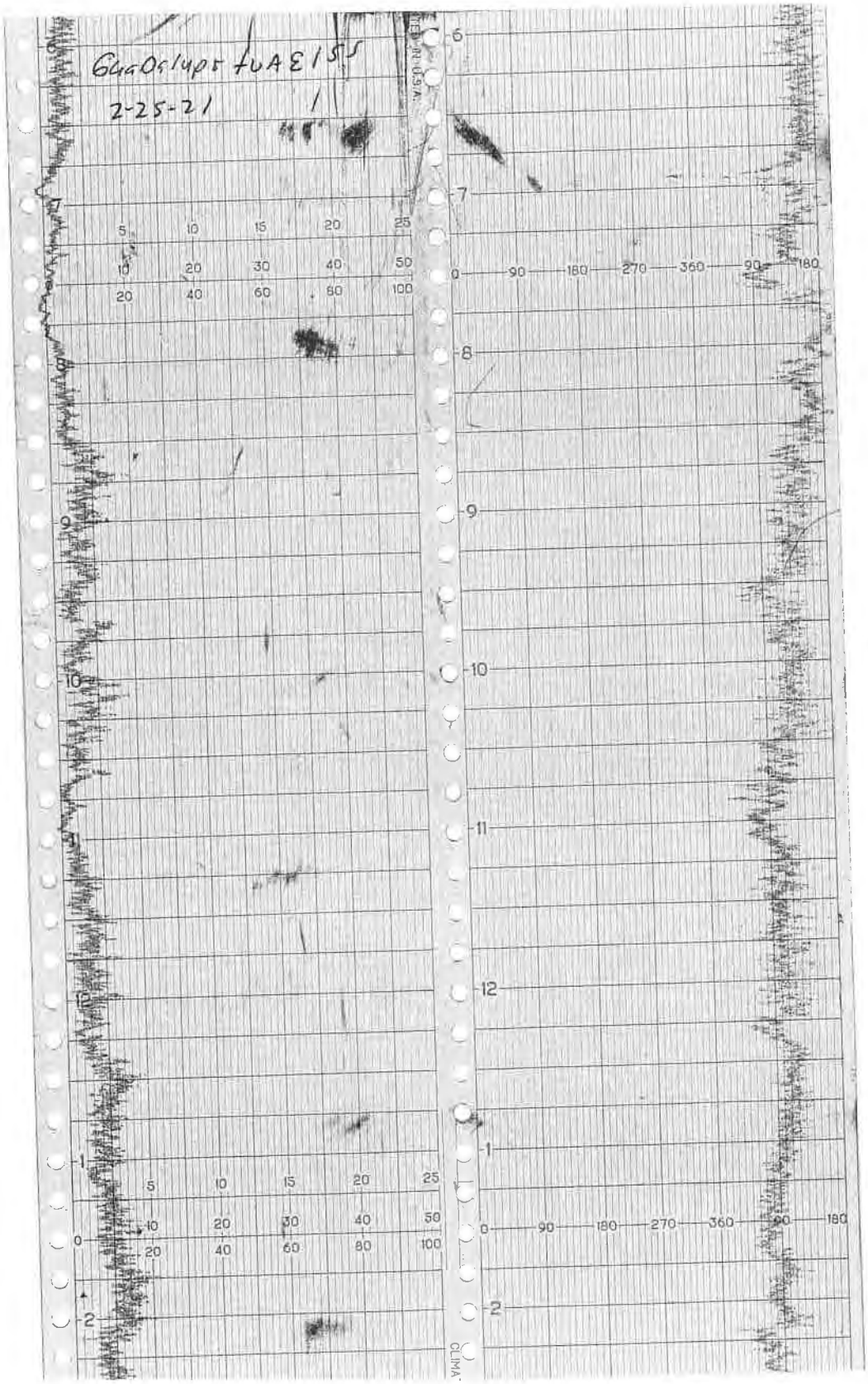
WIND SPEED & DIRECTION CHART ROLL



WIND SPEED & DIRECTION CHART ROLL



WIND SPEED & DIRECTION CHART ROLL



RES
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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

865 Via Lata ▪ Colton, California 92324 ▪ (909) 422-1001 Fax (909) 422-0707

Attachment E

Calibration Records

RES
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CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME Chandler Jr. INSTRUMENT MAKE TAdano

MODEL TVA 1000 EQUIPMENT #: 10 SERIAL #: 1636346770

MONITORING DATE: 2-25-21 TIME: 0545

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	2.4 ppm	2.2 ppm

Background Value = 2.2 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	506 ppm	456 ppm	6
#2	499 ppm	445 ppm	6
#3	500 ppm	450 ppm	6
Calculate Response Time (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	0.21 ppm	506 ppm	6
#2	0.13 ppm	495 ppm	1
#3	0.11 ppm	500 ppm	0
Calculate Precision	[STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/500 X 100/1		0.46 #DIV/0! Must be less than 10%

Performed By: Leshawn C Date/Time 2-25-21 – 0545

RJES
Environmental Inc

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME Hardeeville INSTRUMENT MAKE Thermo

MODEL TVA1000 EQUIPMENT #: 11 SERIAL #: 1036316774

MONITORING DATE: 2-25-21 TIME: 0815

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	2.4 ppm	2.2 ppm

Background Value = 2.2 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	6
#2	500 ppm	450 ppm	6
#3	500 ppm	450 ppm	6
Calculate Response Time (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	0.16 ppm	490 ppm	10
#2	0.11 ppm	500 ppm	0
#3	0.09 ppm	500 ppm	0
Calculate Precision	[STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/500 X 100/1		0.66 #DIV/0! Must be less than 10%

Performed By: Omar Pencek Date/Time: 2-25-21 / 0815

RES
Environmental Inc

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME Buena Park INSTRUMENT MAKE Thermo

MODEL TVA 1000 EQUIPMENT # 12 SERIAL #: 1036211791

MONITORING DATE 2-25-21 TIME: 0845

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	2.4 ppm	2.2 ppm

Background Value = 2.2 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	497 ppm	447 ppm	6
#2	502 ppm	452 ppm	6
#3	500 ppm	450 ppm	6
Calculate Response Time (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	0.22 ppm	497 ppm	3
#2	0.16 ppm	502 ppm	2
#3	0.10 ppm	500 ppm	0
Calculate Precision	[STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/500 X 100/1		0.33 #DIV/0! Must be less than 10%

Performed By Nick Banks Date/Time 2-25-21 0845

EES

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INSTANTANEOUS

LANDFILL NAME Eucalyptus INSTRUMENT MAKE Thermo

MODEL TVA1000 EQUIPMENT #: 13 SERIAL #: 1102746775

MONITORING DATE: 2-25-21 TIME: 0545

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	2.4 ppm	2.2 ppm

Background Value = 2.2 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	492 ppm	442 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	0.35 ppm	492 ppm	8
#2	0.17 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		0.6 #DIV/0! Must be less than 10%

Performed By: Jesse Manning Date/Time: 2-25-21 0545

RES Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Goodlapr INSTRUMENT MAKE: Thermo

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

MONITORING DATE: 2-24-21 TIME: 1000

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	2.4 ppm	2.2 ppm

Background Value = 2.2 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 (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	0.20 ppm	24 ppm	1
#2	0.14 ppm	25 ppm	0
#3	0.10 ppm	25 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1			1.3 #DIV/0! Must be less than 10%

Performed By: Leishwaot Date/Time: 2-24-21-1000

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Glacier Hills INSTRUMENT MAKE: Thermo

MODEL: TVA 1000 EQUIPMENT #: 11 SERIAL #: 1036046774

MONITORING DATE: 2-24-21 TIME: 1000

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	2.4 ppm	2.2 ppm

Background Value = _____ 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 (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	0.33 ppm	24 ppm	1
#2	0.19 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 Omar Pinedo Date/Time 2-24-21 – 1000

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Backlapu INSTRUMENT MAKE: TVA 1000

MODEL: TVA 1000 EQUIPMENT #: 12 SERIAL #: 1036246241

MONITORING DATE: 2-24-21 TIME: 1010

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	2.4 ppm	2.2 ppm

Background Value = 2.2 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	>
#2	25 ppm	22.5 ppm	>
#3	25 ppm	22.5 ppm	>
Calculate Response Time (1+2+3) / 3			> #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	23 ppm	2
#2	0.16 ppm	25 ppm	0
#3	0.11 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: Nick Banks Date/Time: 2-24-21-1000

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Graclight INSTRUMENT MAKE Honeywell

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

MONITORING DATE: 2-24-21 TIME: 1000

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	2.4 ppm	2.2 ppm

Background Value = 2.2 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 (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	0.41 ppm	24 ppm	1
#2	0.26 ppm	25 ppm	0
#3	0.15 ppm	25 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1			.1-3 #DIV/0! Must be less than 10%

Performed By Jesse Manning Date/Time 2-24-21 ~1000

RES Environmental Inc

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Gaedalia INSTRUMENT MAKE TVA

MODEL TVA 1000 EQUIPMENT #: 10 SERIAL #: 1036346773

MONITORING DATE: 2-25-21 TIME: 1025

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	2.4 ppm	2.2 ppm

Background Value = 2.2 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 (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	23 ppm	2
#2	0.17 ppm	24 ppm	1
#3	0.21 ppm	25 ppm	0
Calculate Precision [STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1			4.0 #DIV/0! Must be less than 10%

Performed By Leslie Vann Date/Time 2-25-21 1025

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Buckeye INSTRUMENT MAKE: Ultra

MODEL: TVA1000 EQUIPMENT #: 11 SERIAL #: 1036346774

MONITORING DATE: 2-25-21 TIME: 1025

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	2.4 ppm	2.2 ppm

Background Value = 2.2 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 (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	0.26 ppm	23 ppm	2
#2	0.21 ppm	25 ppm	0
#3	0.14 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: Michael Hall Date/Time 2-25-21 - 1025

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Gallatin INSTRUMENT MAKE: Ion Science

MODEL: Tiger EQUIPMENT #: 12 SERIAL #: 1036246741

MONITORING DATE: 2-25-21 TIME: 1025

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	2.4 ppm	2.2 ppm

Background Value = 2.2 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 (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	0.40 ppm	24 ppm	1
#2	0.29 ppm	24 ppm	1
#3	0.21 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: Nick Banks Date/Time: 2-25-21 ~1025

RES
Environmental Inc.

CALIBRATION PROCEDURE AND BACKGROUND REPORT – INTEGRATED

LANDFILL NAME: Guadalupe INSTRUMENT MAKE: TurboRae

MODEL: TVA1000 EQUIPMENT #: 13 SERIAL #: 110274775

MONITORING DATE: 2-25-21 TIME: 1025

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	2.4 ppm	2.2 ppm

Background Value = 2.2 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 (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	24 ppm	1
#2	0.21 ppm	25 ppm	0
#3	0.16 ppm	25 ppm	0
Calculate Precision	[STD-B1] + [STD-B2] + [STD-B3] / 3 X 1/25 X 100/1		1.3 #DIV/0! Must be less than 10%

Performed By: Jesse Manning Date/Time: 2-25-21-1025

RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #10

SERIAL NUMBER: 1036346773

TECHNICIAN: [signature] DATE: 1-9-21

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	10,103	+/- 2500
< 1	ZERO GAS	0.64	< 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.

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(909) 422-1001 ▪ TOLL FREE (888) 325-1098 ▪ FAX (909) 422-0707 ▪ www.resenvironmental.com

RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #11

SERIAL NUMBER: 103634677Y

TECHNICIAN: [signature] DATE: 1-9-21

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	10,101	+/- 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.

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RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES UNIT #12

SERIAL NUMBER: 1036246741

TECHNICIAN: [signature] DATE: 1-9-21

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	0.63	< 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.

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RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit # 13

SERIAL NUMBER: 1102746775

TECHNICIAN: [signature] DATE: 1-9-21

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	10,001	+/- 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.

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: _____

Date: 2-6-21 **Time:** 0930

Model # TVA1000 B

Serial # 10 1036346773

INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION
Battery test	(Pass) / Fail	CALIBRATION CHECK
Reading following ignition	2.7 ppm	Calibration Gas (ppm): 500 / Actual (ppm): 500 / % Accuracy: 100%
Leak test	(Pass) / Fail / NA	RESPONSE TIME
Clean system check (check valve chatter)	(Pass) / Fail / NA	Calibration Gas, ppm: 500
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA	90% of Calibration Gas, ppm: 450
Date of last factory calibration	1-9-21	Time required to attain 90% of Cal Gas ppm: 1. 6 / 2. 6 / 3. 7 / Average 6.3
Factory calibration record w/instrument within 3 months	(Pass) / Fail	Equal to or less than 30 seconds? (Y) N
		Instrument calibrated to CH4 gas.

Comments: _____

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: _____

Date: 2-6-21 **Time:** 0945

Model # TVA 1000 B

Serial # # 11 / 1036346774

INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION
Battery test	(Pass) / Fail	CALIBRATION CHECK
Reading following ignition	2.6 ppm	Calibration Gas (ppm): 500 / Actual (ppm): 500 / % Accuracy: 100%
Leak test	(Pass) / Fail / NA	RESPONSE TIME
Clean system check (check valve chatter)	(Pass) / Fail / NA	Calibration Gas, ppm: 500
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA	90% of Calibration Gas, ppm: 450
Date of last factory calibration	1-9-21	Time required to attain 90% of Cal Gas ppm
Factory calibration record w/instrument within 3 months	(Pass) / Fail	1. 6 2. 6 3. 7 Average 6.3
		Equal to or less than 30 seconds? (Y) N
		Instrument calibrated to CH4 gas.

Comments: _____

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: JL CM

Date: 2-6-21 **Time:** 1000

Model # TVA-1000B

Serial # #12 1036246741

INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION
Battery test	(Pass) / Fail	CALIBRATION CHECK
Reading following ignition	2.1 ppm	Calibration Gas (ppm): 500 / Actual (ppm): 500 / % Accuracy: 100%
Leak test	(Pass) / Fail / NA	RESPONSE TIME
Clean system check (check valve chatter)	(Pass) / Fail / NA	Calibration Gas, ppm: 500
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA	90% of Calibration Gas, ppm: 450
Date of last factory calibration	1-9-21	Time required to attain 90% of Cal Gas ppm: 1. 7 / 2. 7 / 3. 6
Factory calibration record w/instrument within 3 months	(Pass) / Fail	Average 6.6
		Equal to or less than 30 seconds? (Y) N
		Instrument calibrated to CH4 gas.

Comments: _____

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: JM CM

Date: 2-6-21 **Time:** 1015

Model # TVA 1000 B

Serial # #13 1102746775

INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION
Battery test	(Pass) / Fail	CALIBRATION CHECK
Reading following ignition	2.6 ppm	Calibration Gas (ppm): 500 / Actual (ppm): 500 / % Accuracy: 100%
Leak test	(Pass) / Fail / NA	RESPONSE TIME
Clean system check (check valve chatter)	(Pass) / Fail / NA	Calibration Gas, ppm: 500
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA	90% of Calibration Gas, ppm: 450
Date of last factory calibration	1-9-21	Time required to attain 90% of Cal Gas ppm: 1. 7 / 2. 7 / 3. 6 / Average 6.6
Factory calibration record w/instrument within 3 months	(Pass) / Fail	Equal to or less than 30 seconds? (Y) N
		Instrument calibrated to CH4 gas.

Comments: _____

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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

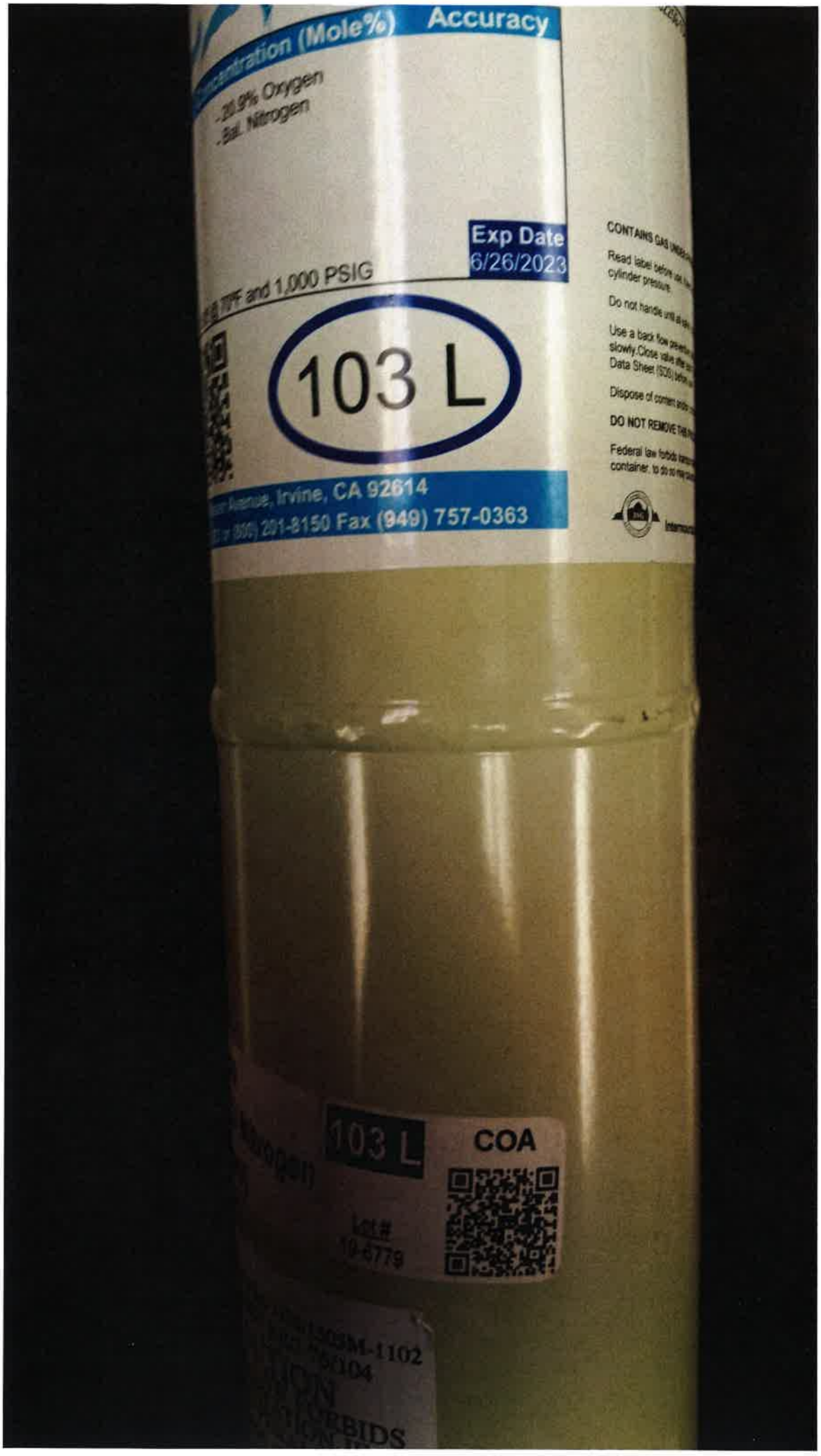
Method of Preparation:

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
and 1,000 PSIG
103 L
Irvine, CA 92614
(949) 757-0363
CONTAINS GAS UNDER
Read label before
cylinder pressure.
Do not handle until
Use a back flow
slowly.Close valve
Data Sheet (SDS)
Dispose of content
DO NOT REMOVE
Federal law forbids
container, to do so
103 L
COA
Lot #
19-6779
1303M-1102
6104
BIDS

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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

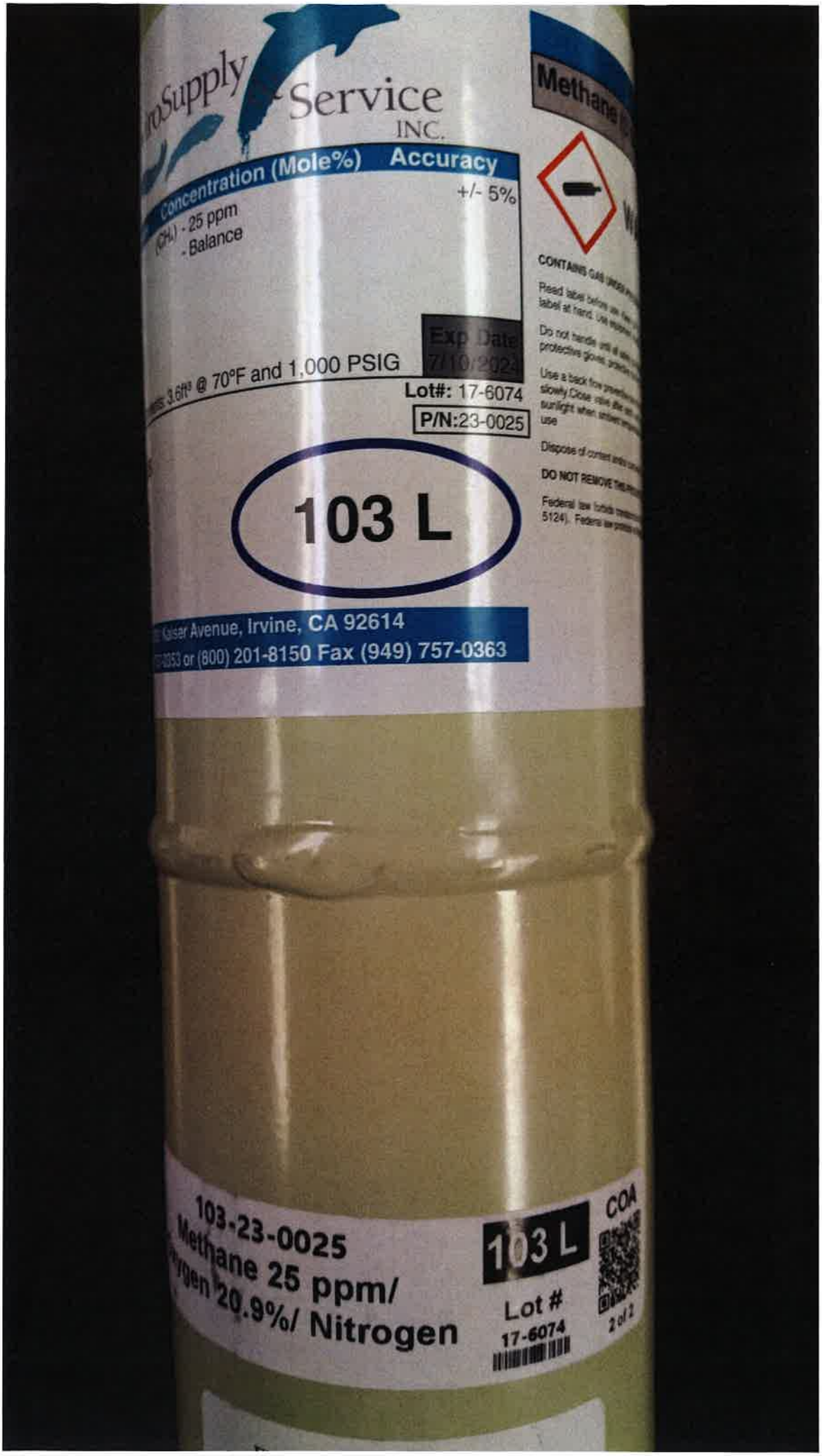
Method of Preparation:

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


Service
INC.
Concentration (Mole%) Accuracy
+/- 5%
(CH4) - 25 ppm
- Balance
Exp Date
7/10/2024
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/
20.9%/ Nitrogen
103 L
Lot #
17-6074
COA
2 of 2

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Nampa, ID 83687 (USA)
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www.isgases.com

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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

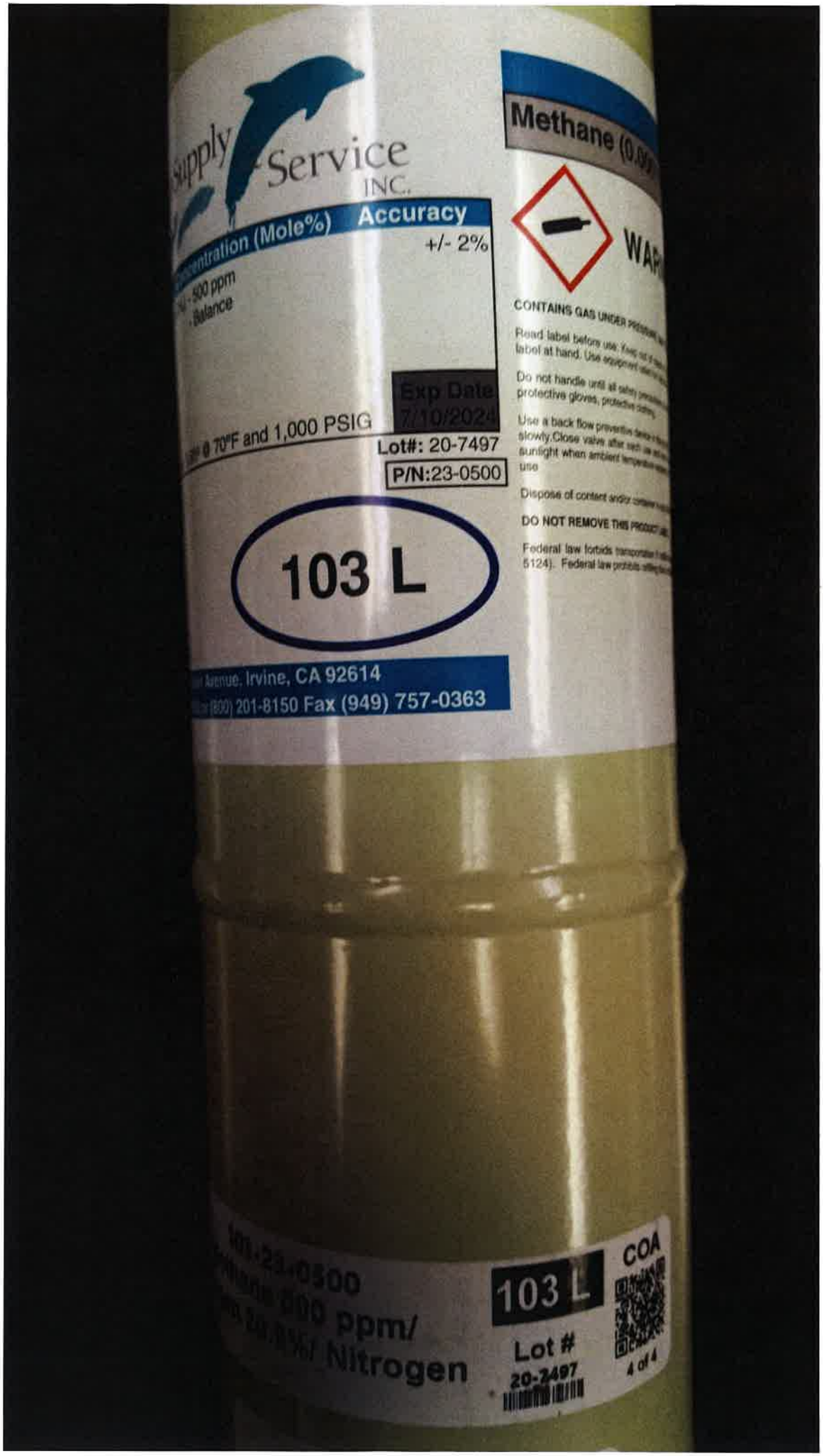
Method of Preparation:

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.
Methane (0.5%)
Accuracy
+/- 2%
Exp Date
7/10/2024
Lot#: 20-7497
P/N:23-0500
103 L
Irvine, CA 92614
Fax (949) 757-0363
CONTAINS GAS UNDER PRESSURE
DO NOT REMOVE THIS PRODUCT
Nitrogen
103 L
Lot #
20-2497
COA
4 of 4

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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

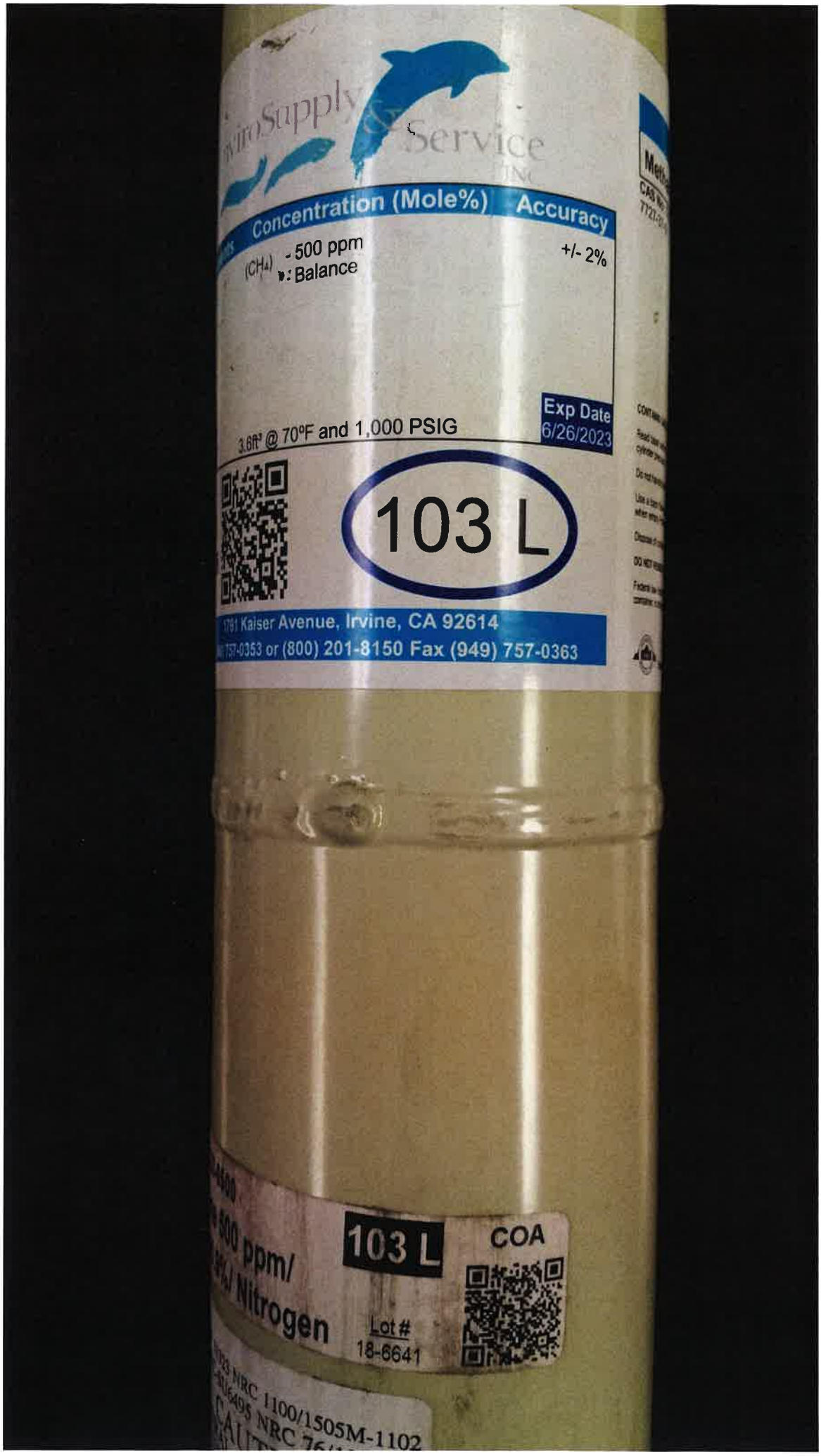
Method of Preparation:

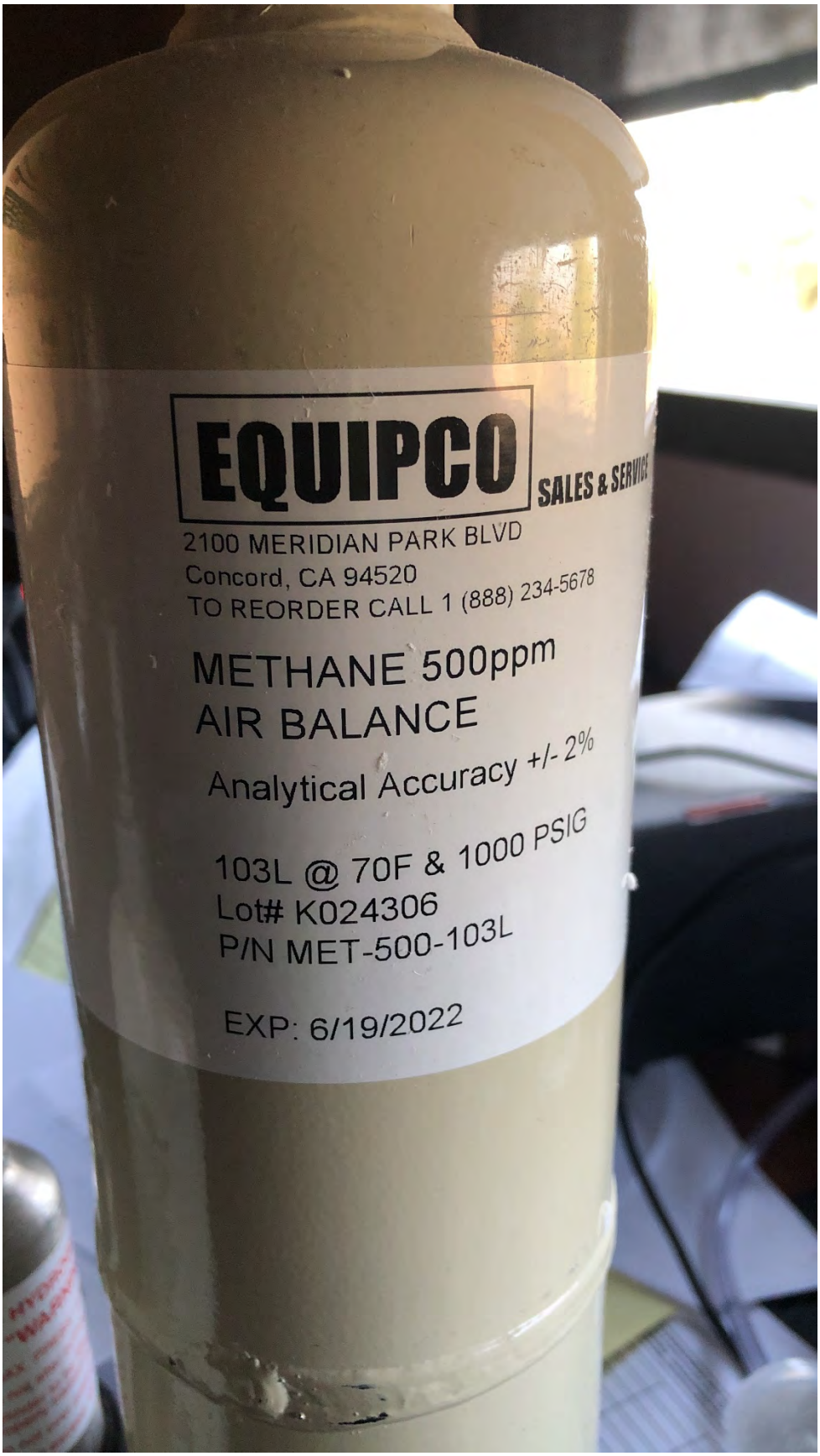
Gravimetric/Pressure Transfilled

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


Concentration (Mole%)
Accuracy
500 ppm
Balance
+/- 2%
Exp Date
6/26/2023
3.6R³ @ 70°F and 1,000 PSIG
103 L
5781 Kaiser Avenue, Irvine, CA 92614
757-0353 or (800) 201-8150 Fax (949) 757-0363
103 L
COA
Lot #
18-6641
Nitrogen
NRC 1100/1505M-1102


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: 6/19/2022

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Guadalupe Rubbish Disposal Date: 3/3/21

Time: _____ AM 12:38 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): 8 ppm (a)
2. Downwind Reading (highest in 30 seconds): 3 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 5.5 ppm

Performed by: Markus Bernard

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Guadalupe Rubbish Disposal Date: 3/22/21

Time: 9:30 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): 3 ppm (a)
2. Downwind Reading (highest in 30 seconds): 4 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 3.5 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 3/3/2021

Expiration Date (3 months): 6/2/2021

Time: 8:48 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: 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: 496 ppm (f)

Calculate Precision:

$$\frac{\{|(500)-(500)|+|(500)-(498)|+|(500)-(496)|\}}{3} \times \frac{1}{500} \times 100$$

1.2 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 3/3/21

Expiration Date (3 months): 6/2/21

Time: 8:48 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: 10 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: 7 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: 7 seconds (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} = 8 \text{ seconds (must be less than 30 seconds)}$$

Performed by: M. Bernard

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

January 29, 2021

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

Re: Fourth 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 Fourth 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.

FOURTH QUARTER 2020 SEM AND COMPONENT LEAK RESULTS

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

Instantaneous Surface Emissions Monitoring Results

The Instantaneous surface monitoring was performed on October 20, 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 10 exceedances of 500 ppm_v as methane detected October 20, 2020. Corrective actions to initiate repairs of the exceedances were completed within five days for all locations (October 22, 2020).

Ten-Day Re-Monitoring Results

The 10-day re-monitoring event was completed on October 23, 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 November 17, 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 October 19 and 20, 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 October 19 and 20, 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 October 20, 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: 4

PERFORMED BY: RES

LANDFILL NAME: Guadalupe Recycling & Disposal Facility

Flag Number	Grid Number	Date of Monitoring	Concentration of Emission (ppmv)	Comments
1	60	10/20/2020	1,100	Well 129
21	88	10/20/2020	1,200	Well 230
22	50	10/20/2020	700	Well 218
11	84	10/20/2020	900	Surface
12	80	10/20/2020	700	Surface
13	75	10/20/2020	845	Well242
14	75	10/20/2020	1,013	Well 240
15	76	10/20/2020	1,243	Well 239
16	75	10/20/2020	4,723	Surface
17	88	10/20/2020	2,210	Suface
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: 4

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: WM-Markus Bernard

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	Monitoring	Field	Repair	Action taken to repair	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	
Number	Date	Reading	Date	Exceedance	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	**Comments**
1	10/20/2020	1,100	10/22/2020	Soil and Water added	10/23/2020	5.00		11/17/2020	25.00		Well 129
21	10/20/2020	1,200	10/22/2020	Soil and Water added	10/23/2020	20.00		11/17/2020	15.00		Well 230
22	10/20/2020	700	10/22/2020	Soil and Water added	10/23/2020	4.00		11/17/2020	20.00		Well 218
11	10/20/2020	900	10/22/2020	Soil and Water added	10/23/2020	5.00		11/17/2020	8.00		Surface
12	10/20/2020	700	10/22/2020	Soil and Water added	10/23/2020	12.00		11/17/2020	2.00		Surface
13	10/20/2020	845	10/22/2020	Soil and Water added	10/23/2020	0.00		11/17/2020	0.00		Well242
14	10/20/2020	1,013	10/22/2020	Soil and Water added	10/23/2020	0.00		11/17/2020	0.00		Well 240
15	10/20/2020	1,243	10/22/2020	Soil and Water added	10/23/2020	2.00		11/17/2020	0.00		Well 239
16	10/20/2020	4,723	10/22/2020	Soil and Water added	10/23/2020	0.00		11/17/2020	0.00		Surface
17	10/20/2020	2,210	10/22/2020	Soil and Water added	10/23/2020	0.00		11/17/2020	0.00		Suface

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

2020 QUARTER: 4

INITIAL MONITORING PERFORMED BY: RES

FOLLOW-UP MONITORING PERFORMED BY: WM-Markus Bernard

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

Initial Monitoring Event			1st Re-mon Event - 10 Days			2nd Re-mon Event - 10 Days			
Exceedance	Monitoring	Field	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	
Grid ID No.	Date	Reading	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	Comments
60	10/20/2020	1,100	10/23/2020	5.00					Well 129
88	10/20/2020	1,200	10/23/2020	20.00					Well 230
50	10/20/2020	700	10/23/2020	4.00					Well 218
84	10/20/2020	900	10/23/2020	5.00					Surface
80	10/20/2020	700	10/23/2020	12.00					Surface
75	10/20/2020	845	10/23/2020	0.00					Well242
75	10/20/2020	1,013	10/23/2020	0.00					Well 240
76	10/20/2020	1,243	10/23/2020	2.00					Well 239
75	10/20/2020	4,723	10/23/2020	0.00					Surface
88	10/20/2020	2,210	10/23/2020	0.00					Suface

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

2020 QUARTER: 4

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	Monitoring	Field	Monitoring	Reading	
Grid ID No.	Date	Reading	Date	ppm	
None					

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

2020 QUARTER: 4

INITIAL MONITORING PERFORMED BY: RES **Wind Direction: N** **SW**

FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard

LANDFILL NAME: GUADALUPE LANDFILL **Wind Speed: 8 MPH** **12 MPH**

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	
1	10/20/2020	1,100	10/22/2020	Soil and Water added	10/23/2020	5.00		11/17/2020	25.00		Well 129
21	10/20/2020	1,200	10/22/2020	Soil and Water added	10/23/2020	20.00		11/17/2020	15.00		Well 230
22	10/20/2020	700	10/22/2020	Soil and Water added	10/23/2020	4.00		11/17/2020	20.00		Well 218
11	10/20/2020	900	10/22/2020	Soil and Water added	10/23/2020	5.00		11/17/2020	8.00		Surface
12	10/20/2020	700	10/22/2020	Soil and Water added	10/23/2020	12.00		11/17/2020	2.00		Surface
13	10/20/2020	845	10/22/2020	Soil and Water added	10/23/2020	0.00		11/17/2020	0.00		Well242
14	10/20/2020	1,013	10/22/2020	Soil and Water added	10/23/2020	0.00		11/17/2020	0.00		Well 240
15	10/20/2020	1,243	10/22/2020	Soil and Water added	10/23/2020	2.00		11/17/2020	0.00		Well 239
16	10/20/2020	4,723	10/22/2020	Soil and Water added	10/23/2020	0.00		11/17/2020	0.00		Surface
17	10/20/2020	2,210	10/22/2020	Soil and Water added	10/23/2020	0.00		11/17/2020	0.00		Suface

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: L. LEIGHWOOD, DWIGHT ROBINSON, _____
OMAR PERALTA, _____, _____
NICK DOMIO, _____, Cal. Gas Exp. Date: 9-21-21

Date: 10-20-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 50 Precip: 0 Upwind BG: 2.6 Downwind BG: 3.2

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
1	LW	0600	0615	51	1	2	1	
2	OP	0600	0615	38	1	2	1	
3	NB	0600	0615	70	1	2	1	
4	DA	0600	0615	34	1	2	1	
5	LW	0615	0630	45	1	2	1	
6	OP	0615	0630	37	1	2	1	
7	NB	0615	0630	22	1	2	1	
8	DA	0615	0630	41	1	2	1	
9	LW	0630	0645	37	2	3	4	
10	OP	0630	0645	24	2	3	4	
11	NB	0630	0645	11	2	3	4	
12	DA	0630	0645	31	2	3	4	
13	LW	0645	0700	47	2	3	4	
15	OP	0645	0700	36	2	3	4	
16	NB	0645	0700	24	2	3	4	
19	DA	0645	0700	15	2	3	4	
24	LW	0700	0715	21	2	3	16	
29	OP	0700	0715	65	2	3	16	
35	NB	0700	0715	34	2	3	16	
36	DA	0700	0715	51	2	3	16	
41	LW	0715	0730	28	2	3	16	
42	OP	0715	0730	89	2	3	16	
43	NB	0715	0730	76	2	3	16	
47	DA	0715	0730	29	2	3	16	
48	LW	0730	0745	34	2	3	16	
49	OP	0730	0745	47	2	3	16	
50	NB	0730	0745	700	2	3	16	WELL 218
54	DA	0730	0745	106	2	3	16	
55	LW	0745	0800	82	2	3	8	
59	OP	0745	0800	46	2	3	8	

Attach Calibration Sheet
Attach site map showing grid ID

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEIGH WADE, DWIGHT ANDERSON, _____
OMAR PERALTA, _____, _____
NICK BANKS, _____, Cal. Gas Exp. Date: 9-21-21

Date: 10-20-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 62 Precip: 0 Upwind BG: 2.6 Downwind BG: 3.2

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
60	NB	0745	0800	1,100	2	3	8	WELL 129
61	DA	0745	0800	39	2	3	8	
64	LW	0800	0815	21	2	3	4	
65	OP	0800	0815	78	2	3	4	
66	NB	0800	0815	51	2	3	4	
67	DA	0800	0815	138	2	3	4	
69	LW	0815	0830	31	1	2	6	
70	OP	0815	0830	59	1	2	6	
71	NB	0815	0830	31	1	2	6	
72	DA	0815	0830	45	1	2	6	
73	LW	0830	0845	72	1	2	10	
74	OP	0830	0845	45	1	2	10	
75	NB	0830	0845	4723	1	2	10	SURFACE
76	DA	0830	0845	1243	1	2	10	WELL 239
77	LW	0845	0900	65	1	2	11	
78	OP	0845	0900	49	1	2	11	
79	NB	0845	0900	28	1	2	11	
80	DA	0845	0900	700	1	2	11	SURFACE
81	LW	0900	0915	94	1	2	11	
82	OP	0900	0915	47	1	2	11	
83	NB	0900	0915	31	1	2	11	
84	DA	0900	0915	900	1	2	11	SURFACE
85	LW	0915	0930	39	1	2	11	
86	OP	0915	0930	57	1	2	11	
87	NB	0915	0930	24	1	2	11	
88	DA	0915	0930	2210	1	2	11	SURFACE
89	LW	0930	0945	56	1	2	11	
90	OP	0930	0945	31	1	2	11	
91	NB	0930	0945	36	1	2	11	
92	DA	0930	0945	21	1	2	11	

Attach Calibration Sheet
Attach site map showing grid ID

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: LEIGH WADE, DWIGHT ANDERSON, ONAKPENEKHA, NICK BANKS

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

Date: 10-20-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 70 Precip: 0 Upwind BG: 2.6 Downwind BG: 3.2

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
93	LW	0945	1000	156	1	2	S	
94	OP	0945	1000	84	1	2	S	
95	ND	0945	1000	61	1	2	S	
96	DA	0945	1000	14	1	2	S	
97	LW	1000	1015	22	1	2	S	
98	OP	1000	1015	17	1	2	S	
99	ND	1000	1015	24	1	2	S	
100	DA	1000	1015	19	1	2	S	
101	LW	1015	1030	26	1	2	S	
102	OP	1015	1030	14	1	2	S	
103	ND	1015	1030	11	1	2	S	
104	DA	1015	1030	17	1	2	S	
105	LW	1030	1045	15	1	2	S	

Attach Calibration Sheet
Attach site map showing grid ID

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: Leishmot _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 10-20-20 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	
20								Active-Hard
21								↓
25								
26								
30								
31								
37								↓
23								No Waste Impacted
28								↓
33								
39								
45								
52								
57								
62								
34								
40								
46								
53								
58								
63								
68								↓
18								Steep slopes
14								↓
17								
22								
27								
32								
38								
44								↓

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 2

GUADALUPE LANDFILL
INSTANTANEOUS LANDFILL SURFACE MONITORING

Personnel: Leigh Wade _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 10-20-20 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	
S1								↓
S6								

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 2

Orange Flag Landfill Surface Emissions Monitoring
Exceedances and Monitoring Log

Site: Eucalyptus

Quarter / Year:	4th 2020												Page	of Pages
Technician:	LEIGH WADE													
Instrument:	TVA1000													
Calibration Standard:	500 ppm													
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		
~~1~~	60	1,100	10-20-20										WELL 129	
~~21~~	88	1,200	↓										WELL 230	
~~22~~	50	700											WELL 218	
~~11~~	84	900											SURFACE	
~~12~~	80	700											SURFACE	
~~13~~	75	845											WELL 242	
~~14~~	75	1013											WELL 240	
~~15~~	76	1243											WELL 239	
~~16~~	75	4723											SURFACE	
~~17~~	88	2210	↓										SURFACE	
0-														
0-														
0-														
0-														
0-														
0-														
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0-														
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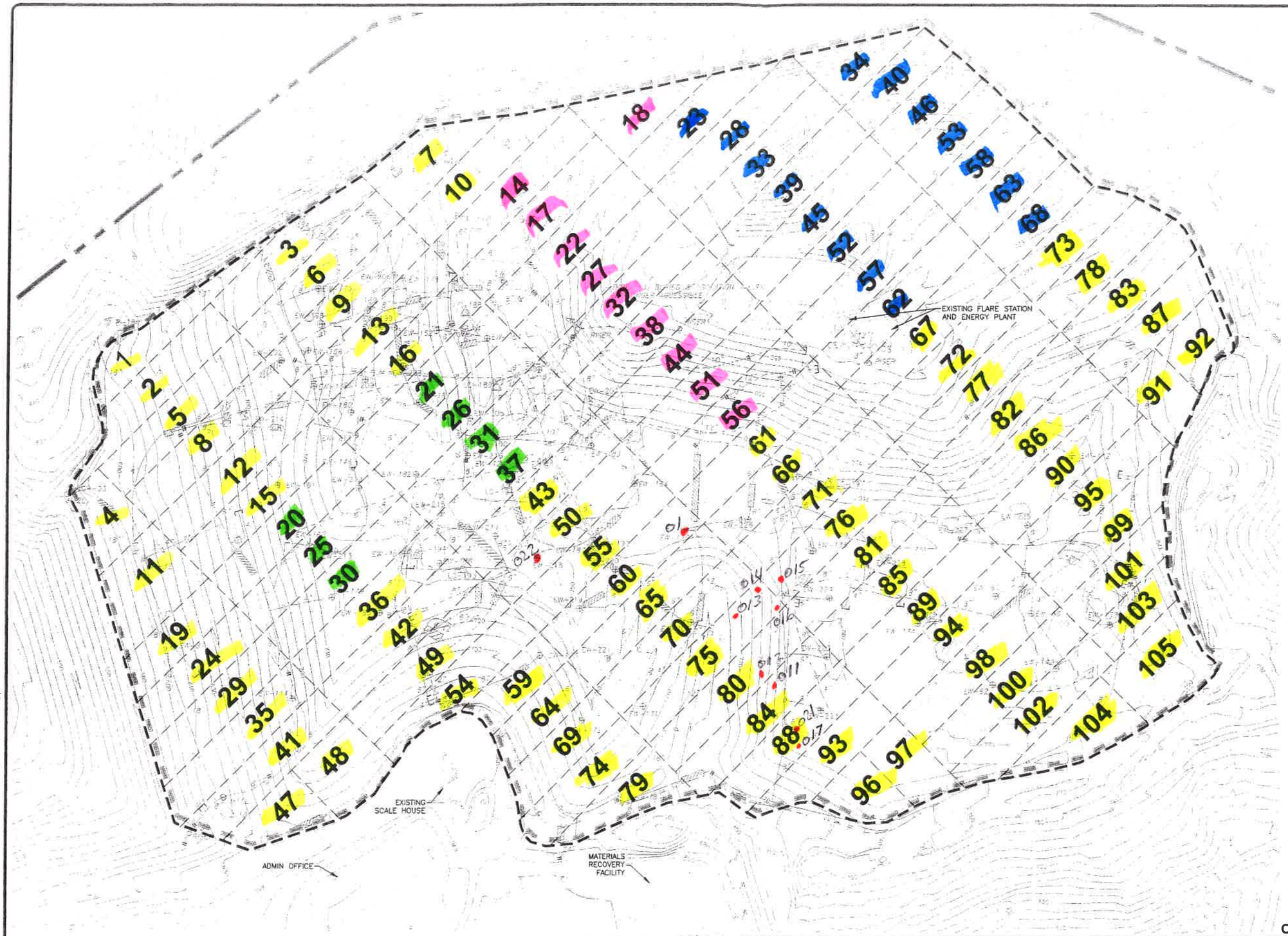


LEGEND

- 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

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.

INSTANTANEOUS 10-20-20

- GROS MONITORED
- ACTIVE HEAD
- STEEP SLOPES
- NO WASTE IN PLACE
- 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

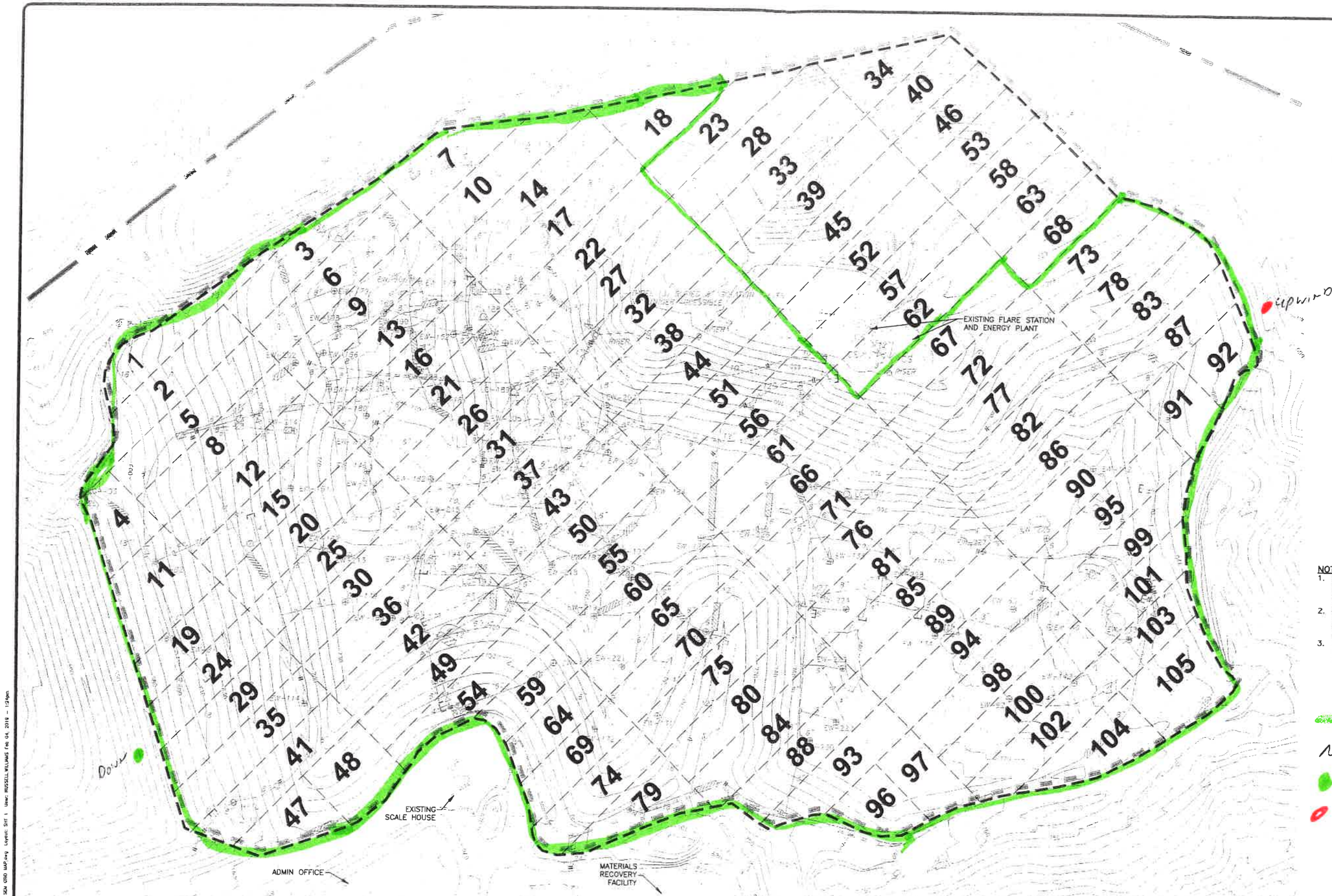
AS-BUILT SEM GRID MAP

SHEET NO. 1

PROJECT NO.

1" 1/2" 0"

File: J:\PROJECTS\GUADALUPE\LAYOUTS\GUADALUPE_SEM_GRID_2019.dwg Layout: SHT 1 User: MISSELL.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.
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.

4th 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.

Attachment B

Integrated Surface Emission Monitoring Event Records

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

2020 QUARTER: 4

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**			
Exceedance	Monitoring	Field	Monitoring	No Exced.	No Exced.	**Comments**
Grid ID No.	Date	Reading	Date	<25 ppm	>25 ppm	
None						

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEIGH WADE, DWIGHT ANDERSON, _____
OMAR PONCEDA, _____, _____
NICK BANKS, _____, Cal. Gas Exp. Date: 9-21-21

Date: 10-19-20 Instrument Used: TVA1000 Grid Spacing: 25

Temperature: 75 Precip: 0 Upwind BG: 2.6 Downwind BG: 3.2

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
1	LW	1130	1155	4.71	1	2	S	
2	OP	1130	1155	5.18	1	2	S	
3	NB	1130	1155	4.65	1	2	S	
4	DA	1130	1155	5.24	1	2	S	
5	LW	1155	1220	5.98	1	3	S	
6	OP	1155	1220	5.34	1	3	S	
7	NB	1155	1220	6.11	1	3	S	
8	DA	1155	1220	5.77	1	3	S	
9	LW	1220	1245	4.95	1	3	S	
10	OP	1220	1245	6.18	1	3	S	
11	NB	1220	1245	4.63	1	3	S	
12	DA	1220	1245	6.17	1	3	S	
13	LW	1245	1310	5.79	1	2	S	
15	OP	1245	1310	6.15	1	2	S	
16	NB	1245	1310	6.47	1	2	S	
19	DA	1245	1310	4.55	1	2	S	
24	LW	1310	1335	4.76	1	2	S	
29	OP	1310	1335	5.31	1	2	S	
35	NB	1310	1335	5.57	1	2	S	
36	DA	1310	1335	7.56	1	2	S	
41	LW	1335	1400	5.60	1	2	S	
42	OP	1335	1400	6.31	1	2	S	
43	NB	1335	1400	5.85	1	2	S	
47	DA	1335	1400	5.47	1	2	S	
48	LW	1400	1425	6.75	2	3	W	
49	OP	1400	1425	7.24	2	3	W	
50	NB	1400	1425	5.51	2	3	W	
54	DA	1400	1425	4.65	2	3	W	
55	LW	1425	1450	5.98	2	3	S	
59	OP	1425	1450	5.70	2	3	S	

Attach Calibration Sheet
Attach site map showing grid ID

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LESLY NAVA, DWIGHT ANDERSON, _____
CARA PERALTA, _____, _____
NICK BANKS, _____, Cal. Gas Exp. Date: 9-21-21

Date: 10-19-20 Instrument Used: TVA1000 Grid Spacing: 25'

Temperature: 77 Precip: 0 Upwind BG: 2.6 Downwind BG: 3.2

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
60	NB	1425	1450	6.23	2	3	8	
61	DA	1425	1450	5.38	2	3	8	
64	LW	1450	1515	5-15	2	3	8	
65	OP	1450	1515	10-35	2	3	8	
66	NB	1450	1515	8.71	2	3	8	
67	DA	1450	1515	6.54	2	3	8	
69	LW	1515	1540	5.45	2	3	7	
70	OP	1515	1540	6.89	2	3	7	
71	NB	1515	1540	7.32	2	3	7	
72	DA	1515	1540	6.14	2	3	7	
73	LW	1540	1605	9.21	2	3	7	
74	OP	1540	1605	10.65	2	3	7	
75	NB	1540	1605	14.27	2	3	7	
76	DA	1540	1605	8.61	2	3	7	
77	LW	1605	1630	6.51	2	3	7	
78	OP	1605	1630	6.04	2	3	7	
79	NB	1605	1630	6.62	2	3	7	
80	DA	1605	1630	14.28	2	3	7	

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 2

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEISHMAN _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 10-19-20 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	
20								Active-Trash
21								
25								
26								
30								
31								
37								
23								NO WASTE IN PLACE
28								
33								
39								
45								
52								
57								
62								
34								
40								
46								
53								
58								
63								
68								
18								Steep slope
14								
17								
22								
27								
32								
38								
44								

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 2

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEIGH WADE _____ _____ _____

_____ _____ _____

_____ _____ Cal. Gas Exp. Date: _____

Date: 10-19-20 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	
51								↓
56								

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 2

GUADALUPE LANDFILL
INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LESHWADE, DWIGHT ANDERSON, _____
OMAR PENILLA, _____, _____
NICK BANKS, _____, Cal. Gas Exp. Date: 9-21-21

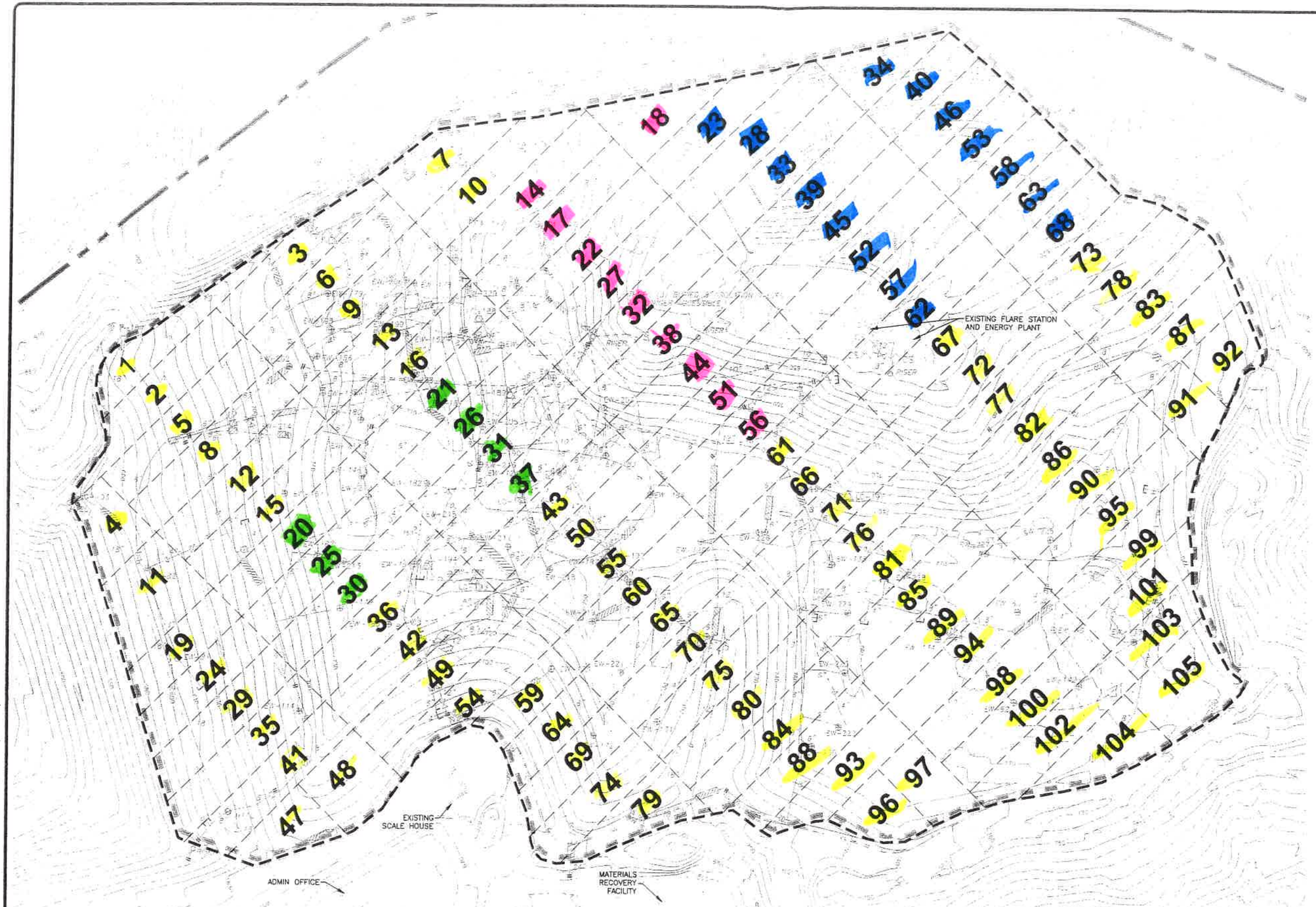
Date: 10-20-20 Instrument Used: TVA 1000 Grid Spacing: 25'

Temperature: 81 Precip: 0 Upwind BG: 2.6 Downwind BG: 3.2

GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	WIND INFORMATION			REMARKS
					AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
G1	LW	1055	1120	10.61	1	2	12	
G2	OP	1055	1120	8.35	1	2	12	
G3	NB	1055	1120	5.21	1	2	12	
G4	DA	1055	1120	13.22	1	2	12	
G5	LW	1120	1145	6.84	1	2	12	
G6	OP	1120	1145	6.21	1	2	12	
G7	NB	1120	1145	7.34	1	2	12	
G8	DA	1120	1145	16.31	1	2	12	
G9	LW	1145	1210	5.47	1	2	8	
G10	OP	1145	1210	6.19	1	2	8	
G11	NB	1145	1210	5.42	1	2	8	
G12	DA	1145	1210	5.79	1	2	8	
G13	LW	1210	1235	11.76	1	2	8	
G14	OP	1210	1235	9.50	1	2	8	
G15	NB	1210	1235	6.13	1	2	8	
G16	DA	1210	1235	5.44	1	2	8	
G17	LW	1235	1300	5.10	1	2	12	
G18	OP	1235	1300	6.34	1	2	12	
G19	NB	1235	1300	5.60	1	2	12	
G20	DA	1235	1300	6.34	1	2	12	
G21	LW	1300	1325	5.94	1	2	12	
G22	OP	1300	1325	5.51	1	2	12	
G23	NB	1300	1325	4.79	1	2	12	
G24	DA	1300	1325	5.31	1	2	12	
G25	LW	1325	1350	5.60	1	2	12	

Attach Calibration Sheet
Attach site map showing grid ID

Page 1 of 1



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.

INTEGRATED 10-19-20
10-20-20

- GRIDS MONITORED
- ACTIVE TRASH
- STEEP SLOPES
- NO WASTE IN PLACE

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.

File: I:\PROJECTS\GUADALUPE\LND\DRAWINGS_2017 SEM GRID MAP.dwg Layout: SIT | User: RUSSELL.WILLIAMS | Feb 04, 2018 - 1:24pm

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: 4

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	10/20/2020	ND	RES	NA	NA	NA	NA	NA
	10/23/2020	ND	WM	NA	NA	NA	NA	NA
Flare Station A-14	10/20/2020	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: 4

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	10/20/2020	ND	RES	NA	NA	NA	NA	NA
	10/23/2020	ND	WM	NA	NA	NA	NA	NA
Flare Station A-14	10/20/2020	ND	RES	NA	NA	NA	NA	NA

ND= Non Exceedances

LANDFILL NAME: Gas Plant
QUARTERLY LFG COMPONENT LEAK MONITORING

INSTRUMENT FID
MAKE: Thermo Environr
MODEL: TVA 1000
S/N: 1036346773

DATE OF SAMPLING: 10-20-20
TECHNICIAN: Lewis 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							

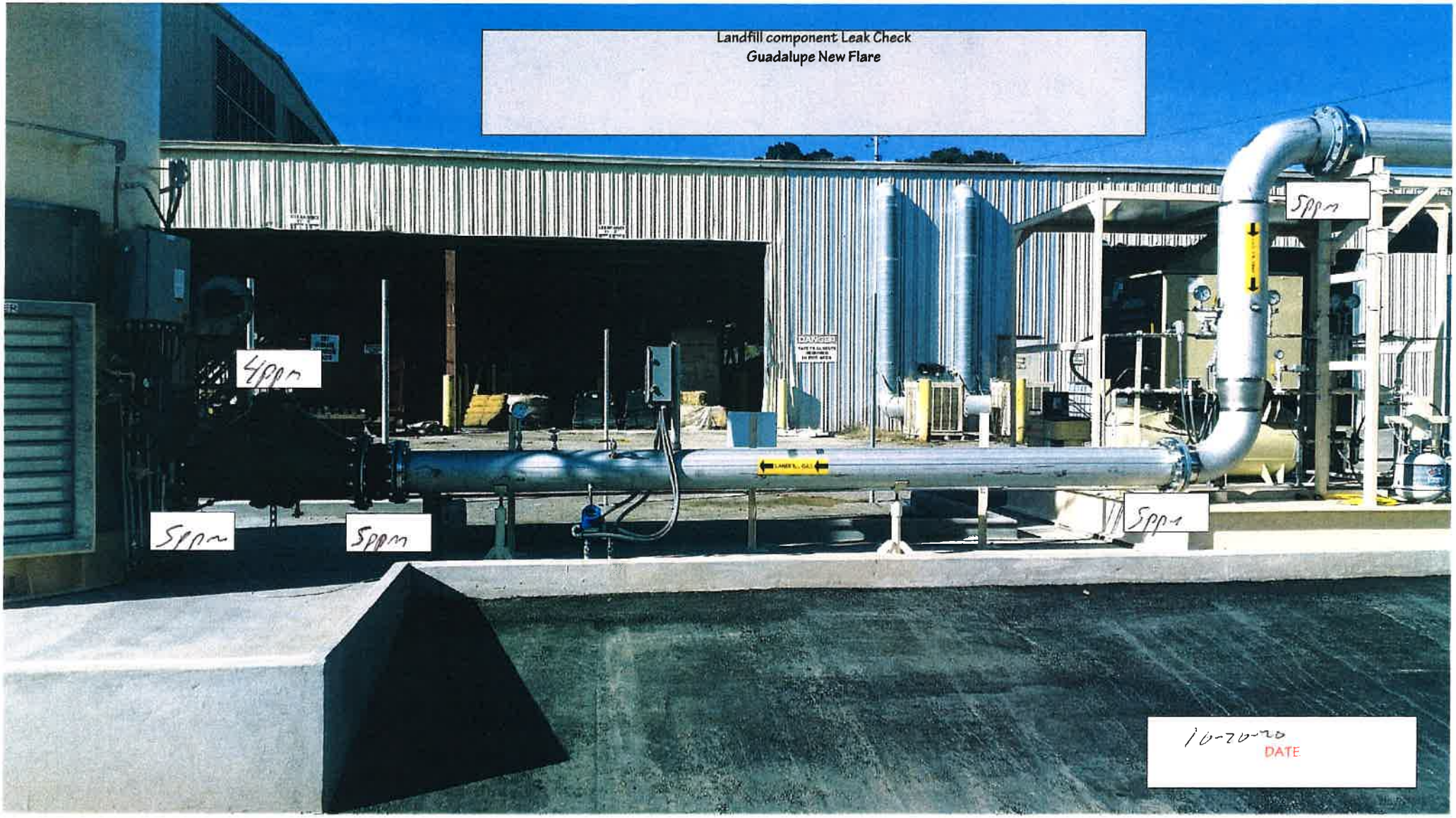
In the event that an exceedance is detected, please intiate corrective action and re-monitor the exceedance location within 7 days of the initial exceedance.

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.

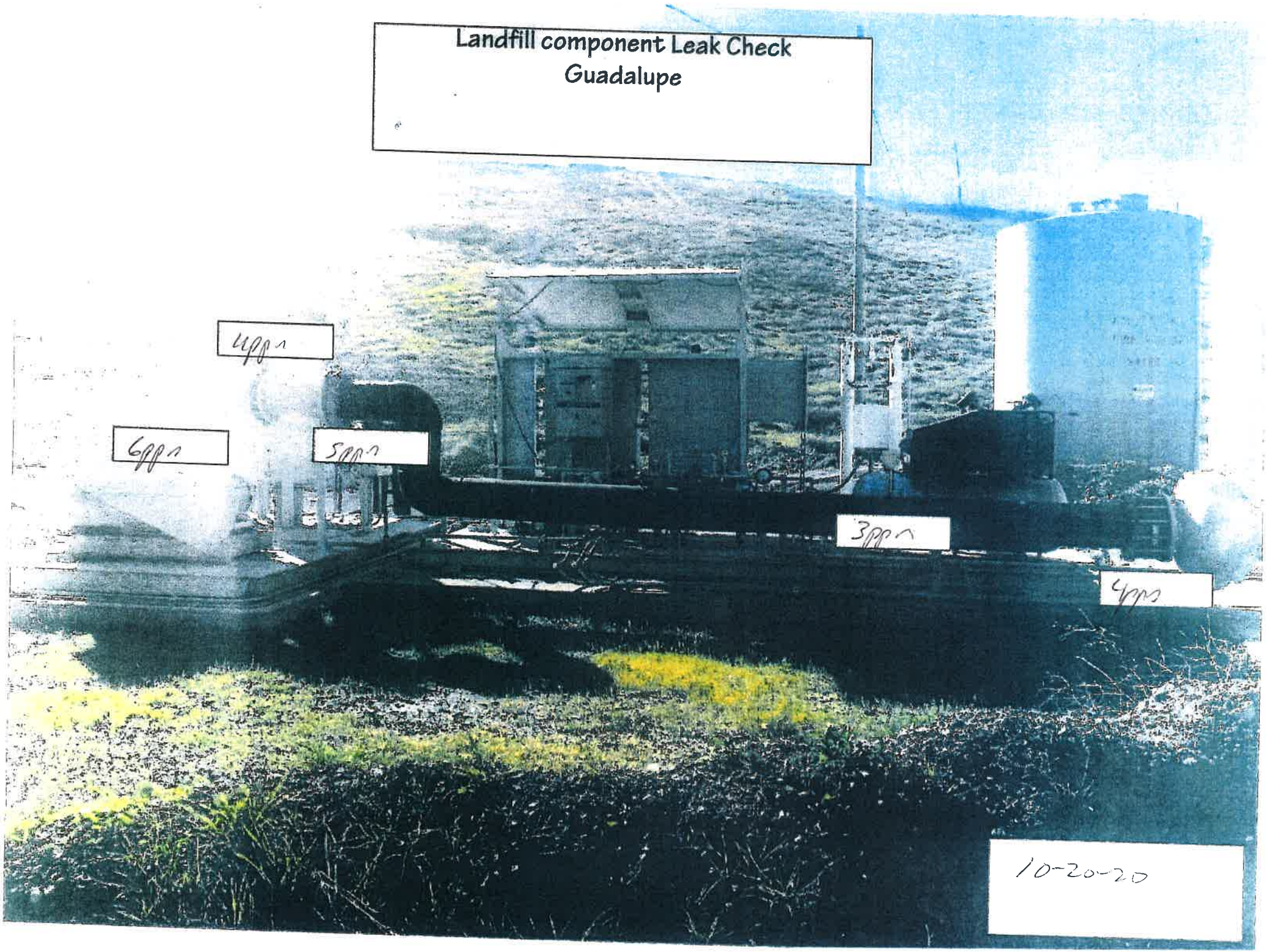

Landfill component Leak Check
Guadalupe New Flare
4/AP
300
10-20-22
DATE


Landfill component Leak Check
Guadalupe New Flare
5ppm
5ppm
6ppm
11ppm
9ppm
8ppm
7ppm
6ppm
5ppm
10-20-20
DATE


Landfill component Leak Check
Guadalupe New Flare
4ppm
5ppm
5ppm
5ppm
5ppm
10-20-20
DATE


Landfill component Leak Check
Guadalupe
4ppm
3ppm
10-26-20
DATE


Landfill component Leak Check
Guadalupe
4ppm
4ppm
3ppm
10-20-20
DATE


Landfill component Leak Check
Guadalupe
4ppm
6ppm
5ppm
3ppm
4ppm
10-20-20

Attachment D
Weather Station Data

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

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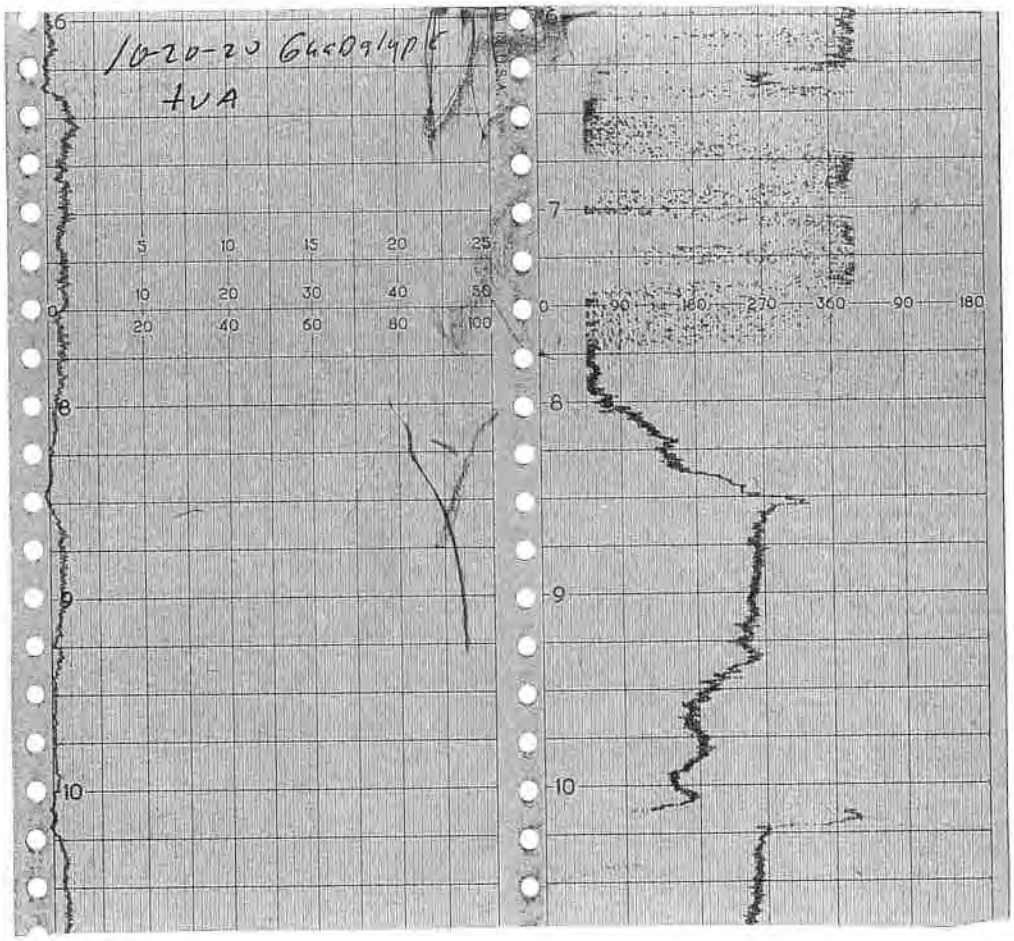
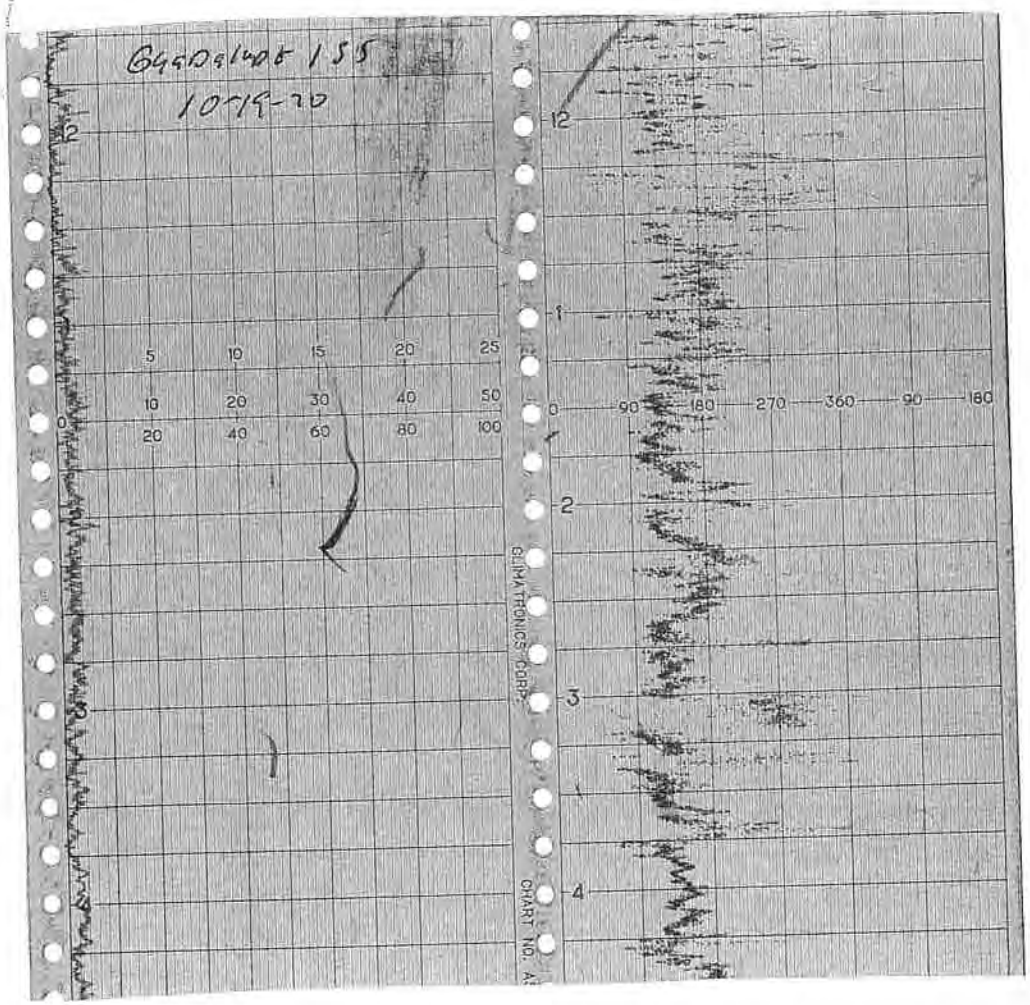
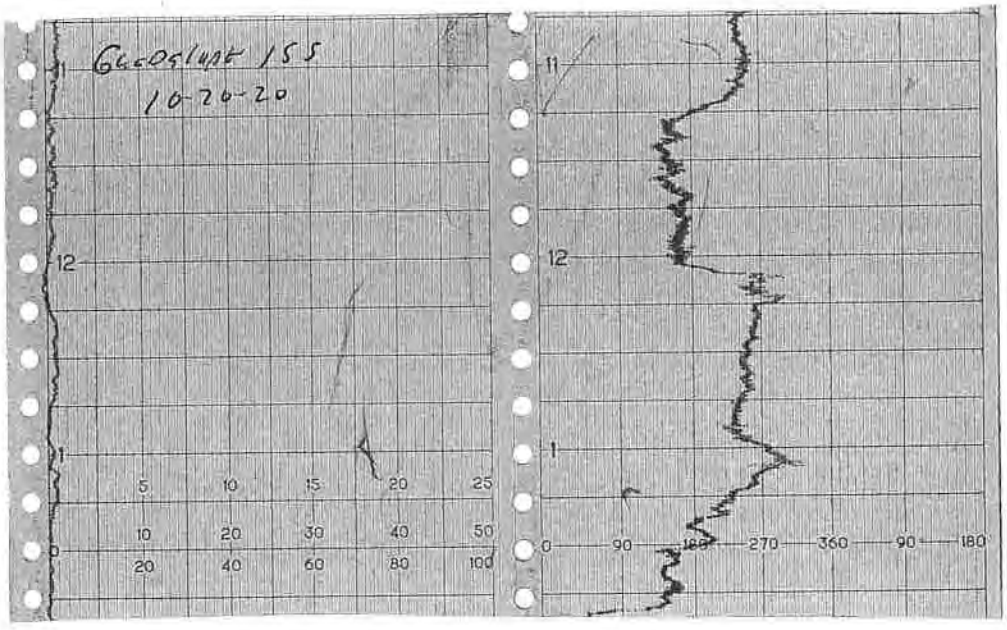
WIND SPEED & DIRECTION CHART ROLL



WIND SPEED & DIRECTION CHART ROLL



WIND SPEED & DIRECTION CHART ROLL



Attachment E

Calibration Records

RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: _____

Date: 10-2-20 Time: 0800

Model # TVA 1000 B

Serial # #10 1036346773

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	10-2-20
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. 7

Average 7.0

Equal to or less than 30 seconds? (Y) N

Instrument calibrated to CH4 gas.

Comments: _____

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(909) 422-1001 Toll Free (888) 325-1098 Fax (909) 422-0707 www.resenvironmental.com

RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: _____

Date: 10-2-20 Time: 0815

Model # TVA 1000 B

Serial # #11 1036346774

INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION
Battery test	(Pass) / Fail	CALIBRATION CHECK
Reading following ignition	2.3 ppm	Calibration Gas (ppm): 500 / Actual (ppm): 500 / % Accuracy: 100%
Leak test	(Pass) / Fail / NA	RESPONSE TIME
Clean system check (check valve chatter)	(Pass) / Fail / NA	Calibration Gas, ppm: 500
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA	90% of Calibration Gas, ppm: 450
Date of last factory calibration	10-2-20	Time required to attain 90% of Cal Gas ppm: 1. 6 / 2. 6 / 3. 7 / Average 6.3
Factory calibration record w/instrument within 3 months	(Pass) / Fail	Equal to or less than 30 seconds? (Y) N
		Instrument calibrated to CH4 gas.

Comments: _____

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: _____

Date: 10-2-20 Time: 0830

Model # TVA 1000 B

Serial # #17 1036246741

INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION
Battery test	(Pass) / Fail	CALIBRATION CHECK
Reading following ignition	2.1 ppm	Calibration Gas (ppm): 500 / Actual (ppm): 500 / % Accuracy: 100%
Leak test	(Pass) / Fail / NA	RESPONSE TIME
Clean system check (check valve chatter)	(Pass) / Fail / NA	Calibration Gas, ppm: 500
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA	90% of Calibration Gas, ppm: 450
Date of last factory calibration	10-2-20	Time required to attain 90% of Cal Gas ppm: 1. 5 2. 6 3. 6
Factory calibration record w/instrument within 3 months	(Pass) / Fail	Average: 5.6
		Equal to or less than 30 seconds? (Y) N
		Instrument calibrated to CH4 gas.

Comments: _____

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RES Environmental Inc.

SURFACE EMISSION MONITORING INSTRUMENT
CALIBRATION LOG

Site: _____

Purpose: _____

Operator: _____

Date: 10-2-20 **Time:** 0845

Model # TVA 1000 B

Serial # #13 / 1027467775

INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION
Battery test	(Pass) / Fail	CALIBRATION CHECK
Reading following ignition	2.6 ppm	Calibration Gas (ppm): 500 / Actual (ppm): 500 / % Accuracy: 100%
Leak test	(Pass) / Fail / NA	RESPONSE TIME
Clean system check (check valve chatter)	(Pass) / Fail / NA	Calibration Gas, ppm: 500
H_2 supply pressure gauge (acceptable range 9.5 - 12)	(Pass) / Fail / NA	90% of Calibration Gas, ppm: 450
Date of last factory calibration	10-2-20	Time required to attain 90% of Cal Gas ppm: 1. 5 / 2. 5 / 3. 5
Factory calibration record w/instrument within 3 months	(Pass) / Fail	Average: 5.0
		Equal to or less than 30 seconds? (Y) N
		Instrument calibrated to CH4 gas.

Comments: _____

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(909) 422-1001 Toll Free (888) 325-1098 Fax (909) 422-0707 www.resenvironmental.com

RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #10

SERIAL NUMBER: 1036346773

TECHNICIAN: JM M DATE: 10-2-20

GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

FID			
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	101	+/- 25
500	500	500	+/- 125
10000	10000	10,026	+/- 2500
< 1	ZERO GAS	0.53	< 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.

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RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES VAULT #11

SERIAL NUMBER: 1036346774

TECHNICIAN: [signature] DATE: 10-2-20

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	10,101	+/- 2500
< 1	ZERO GAS	0.49	< 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.

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RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #12

SERIAL NUMBER: 1036246741

TECHNICIAN: [signature] DATE: 10-2-20

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.

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RES Environmental Inc.

TVA1000B CALIBRATION VERIFICATION

CUSTOMER: RES Unit #13

SERIAL NUMBER: 1102746775

TECHNICIAN: [signature] DATE: 10-2-20

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	10,003	+/- 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.

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CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Guadalupe Date: 10-23-20

Time: _____ AM 3:30 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 = 500 ppm
3. Adjust meter to read 500 ppm.

Background Determination Procedure

1. Upwind Reading (highest in 30 seconds): 4 ppm (a)
2. Downwind Reading (highest in 30 seconds): 1 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 2.5 ppm

Performed by: Markus Bernard

CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Guadalupe Date: 11-17-20

Time: _____ AM 2:00 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): 7 ppm (a)
2. Downwind Reading (highest in 30 seconds): 4 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 5.5 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 9/30/2020

Expiration Date (3 months): 12/30/2020

Time: 9:00 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: 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: 496 ppm (f)

Calculate Precision:

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

0.8 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 9/30/20

Expiration Date (3 months): 12/30/20

Time: 9:00 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:	4	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)

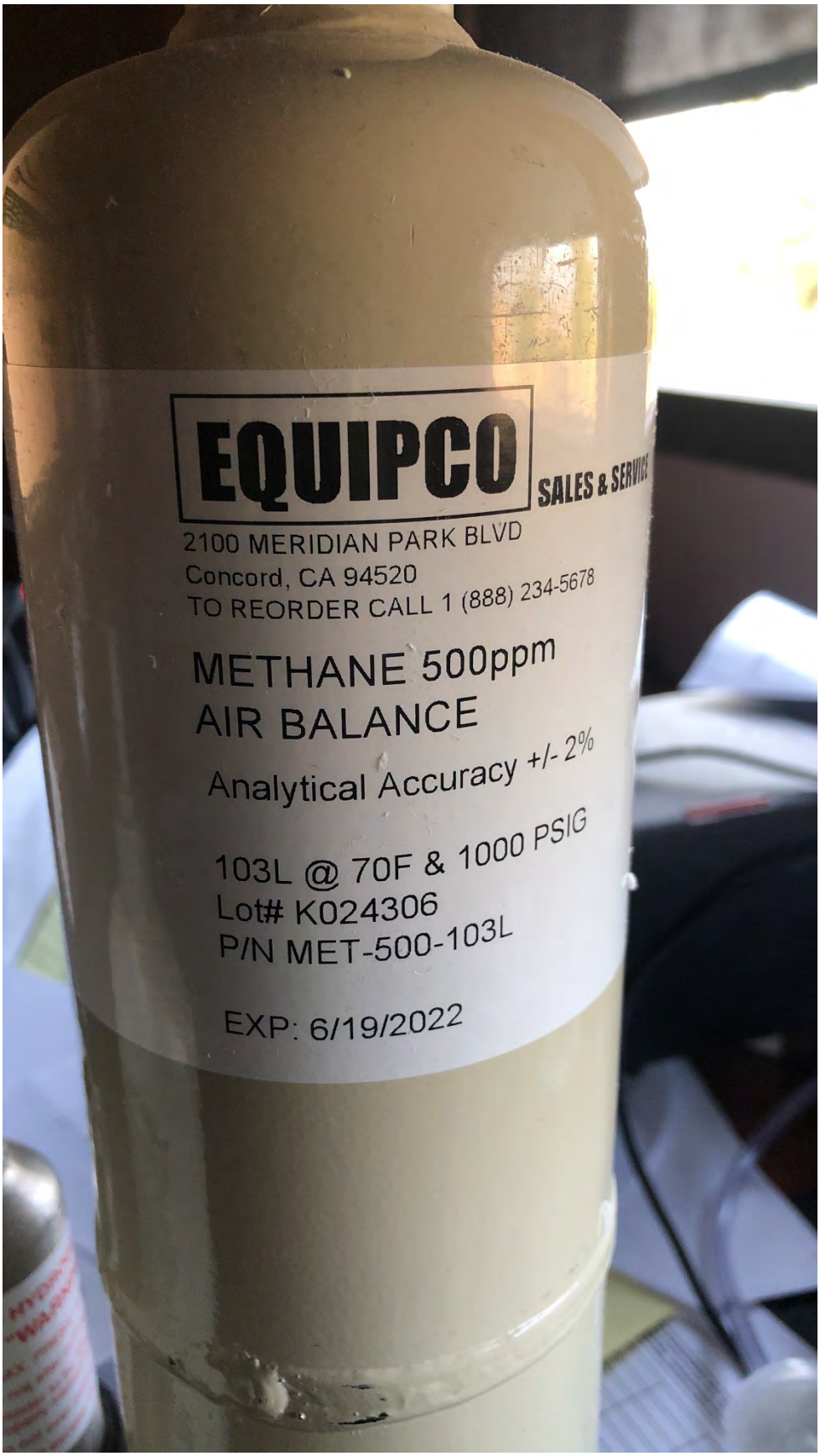
Measurement #3:

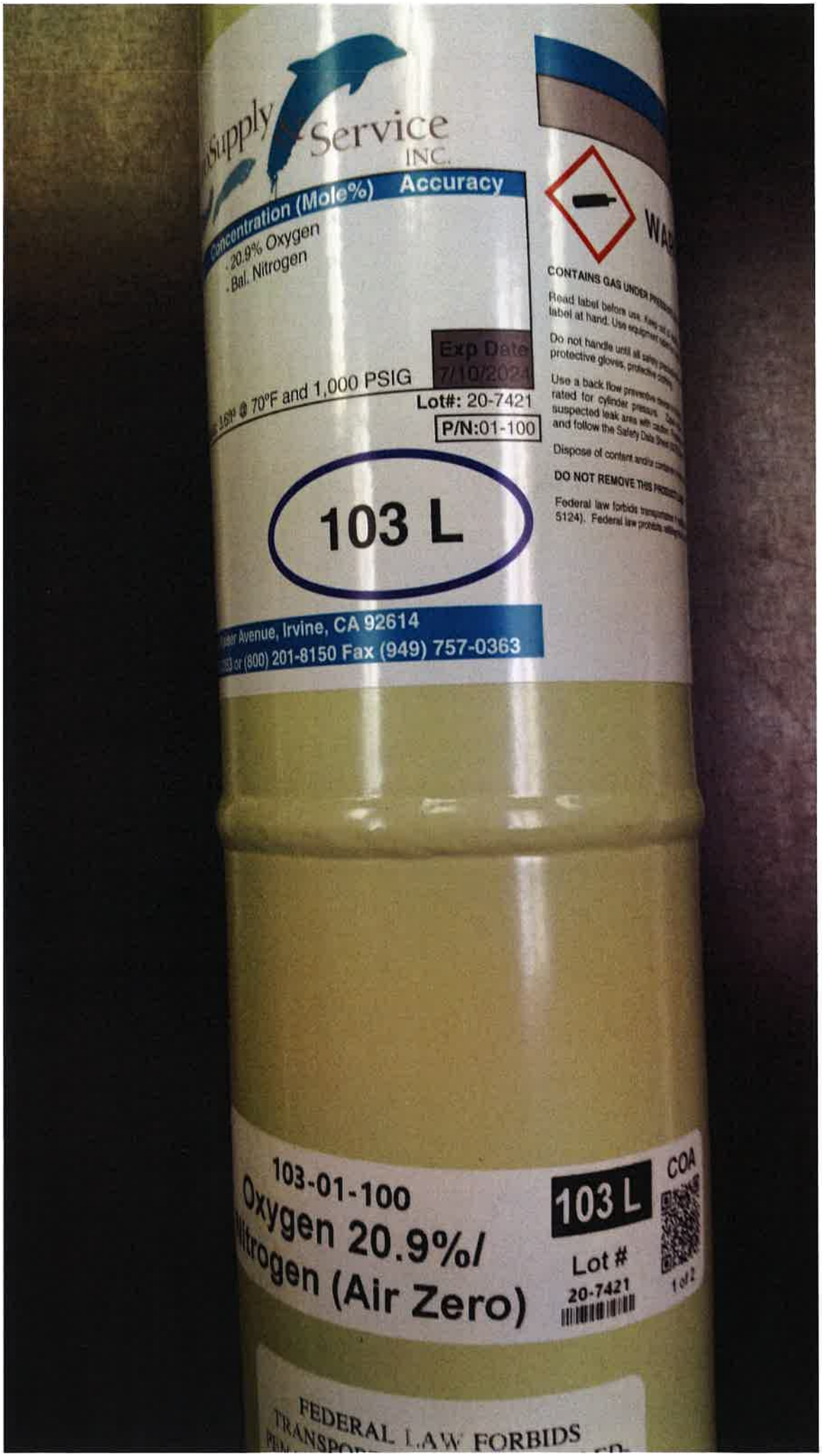
Stabilized Reading Using Calibration Gas:	498	ppm
90% of the Stabilized Reading:	450	ppm
Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas:	5	seconds (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} =$$ 4.6 seconds (must be less than 30 seconds)

Performed by: M. Bernard


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: 6/19/2022


Supply Service INC.
Concentration (Mole%) Accuracy
- 20.9% Oxygen
- Bal. Nitrogen
Exp Date 7/10/2024
Lot#: 20-7421
P/N:01-100
103 L
CONTAINS GAS UNDER
Read label before use.
Do not handle until
protective gloves,
Use a back flow
rated for cylinder
suspected leak
and follow the
Dispose of
DO NOT REMOVE THIS
Federal law forbids
5124). Federal law
Avenue, Irvine, CA 92614
or (800) 201-8150 Fax (949) 757-0363
103-01-100
Oxygen 20.9%/
Nitrogen (Air Zero)
103 L
Lot #
20-7421
COA
1 of 2
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CERTIFICATE OF ANALYSIS

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

Lot #	20-7421
Mfg. Date:	5/20/2020
Expiration Date:	
Transfill Date:	see cylinder
Parent Cylinder ID Number:	NY02268

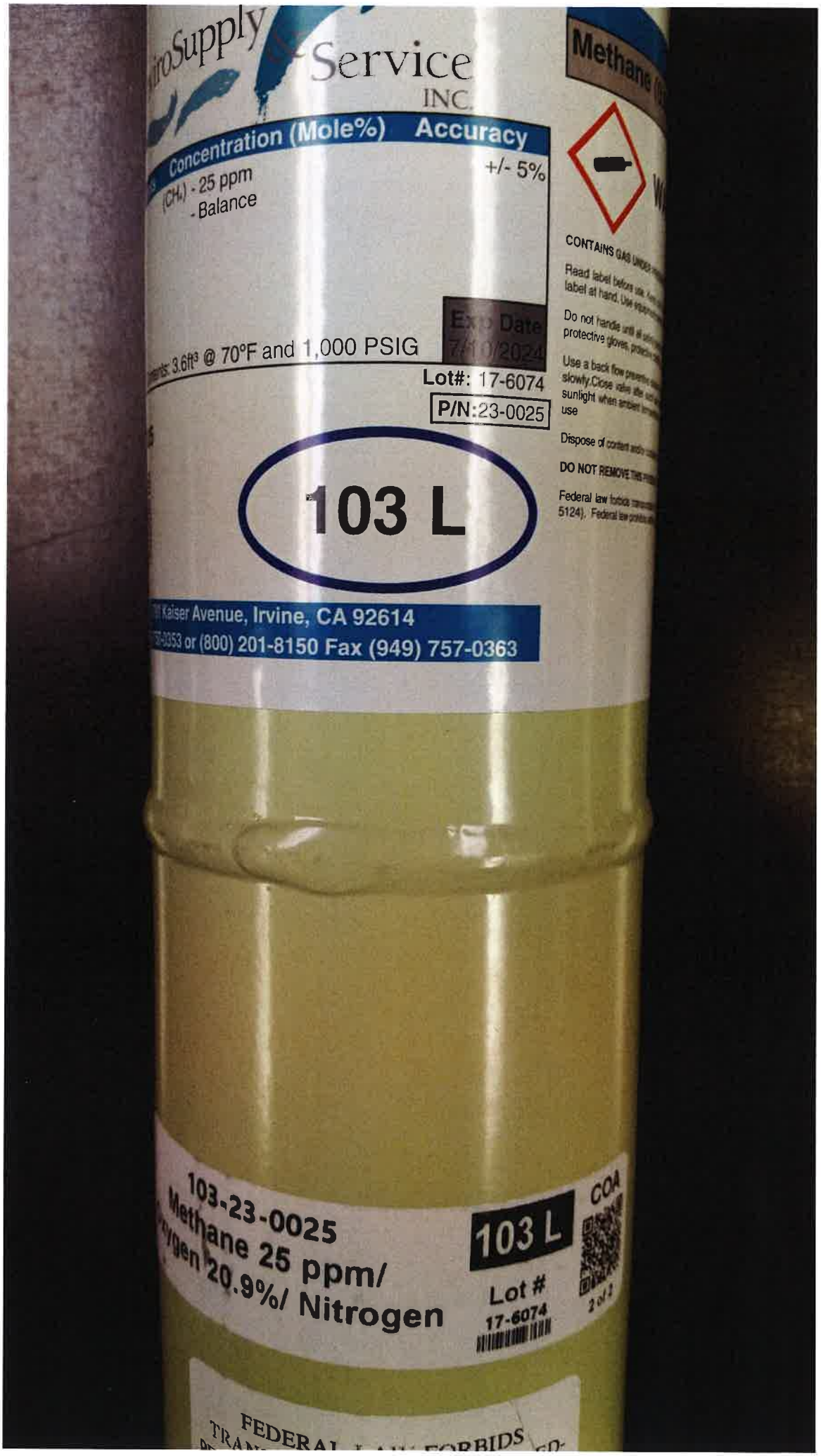
Method of Preparation:

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: 5/20/2020


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

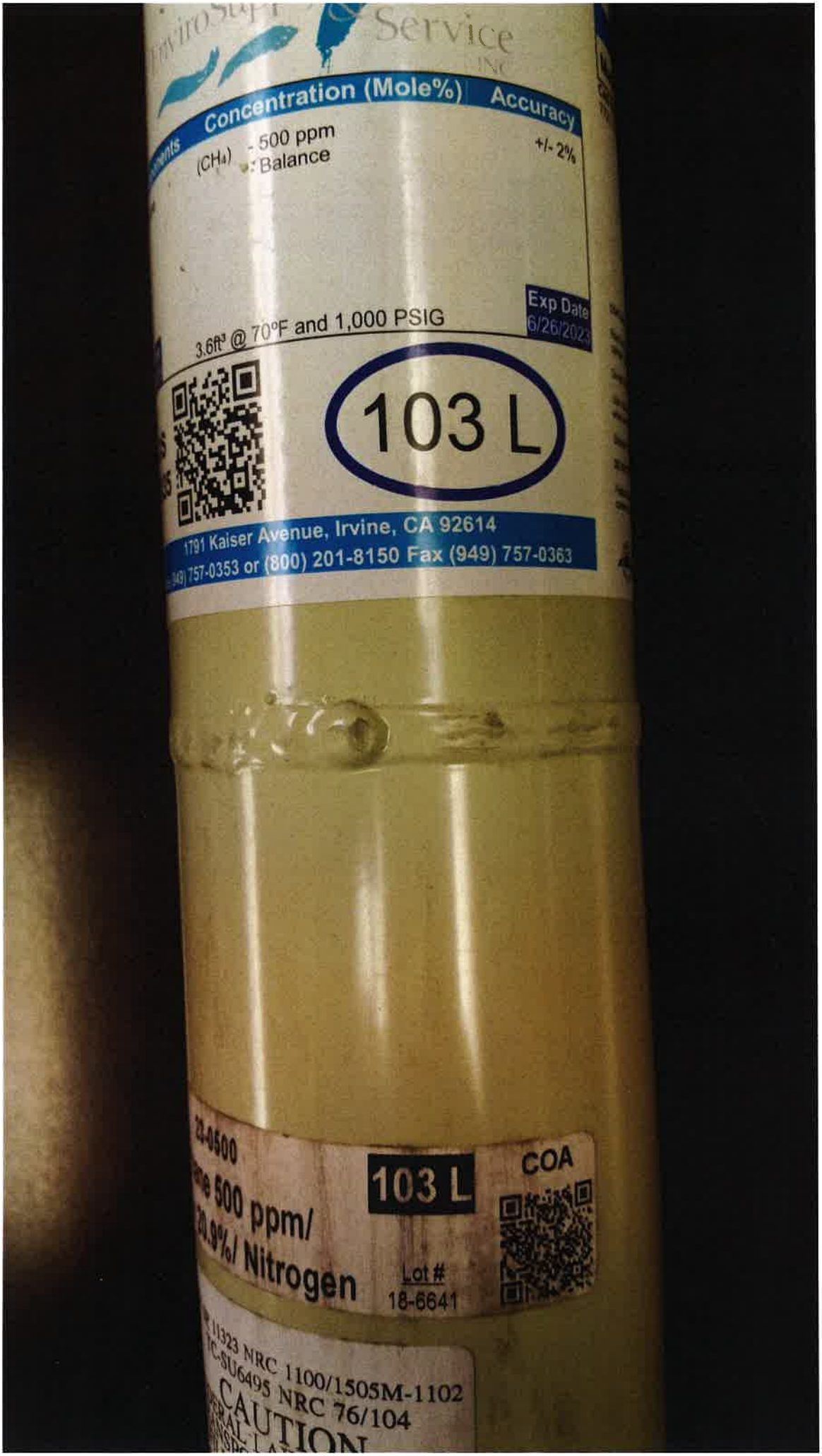
Method of Preparation:

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


Service
Concentration (Mole%)
Accuracy
(CH4) - 500 ppm
Balance
+/- 2%
3.6ft³ @ 70°F and 1,000 PSIG
Exp Date
6/26/2023
103 L
1791 Kaiser Avenue, Irvine, CA 92614
757-0353 or (800) 201-8150 Fax (949) 757-0363
103 L
COA
Lot #
18-6641
11323 NRC 1100/1505M-1102
CAUTION

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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

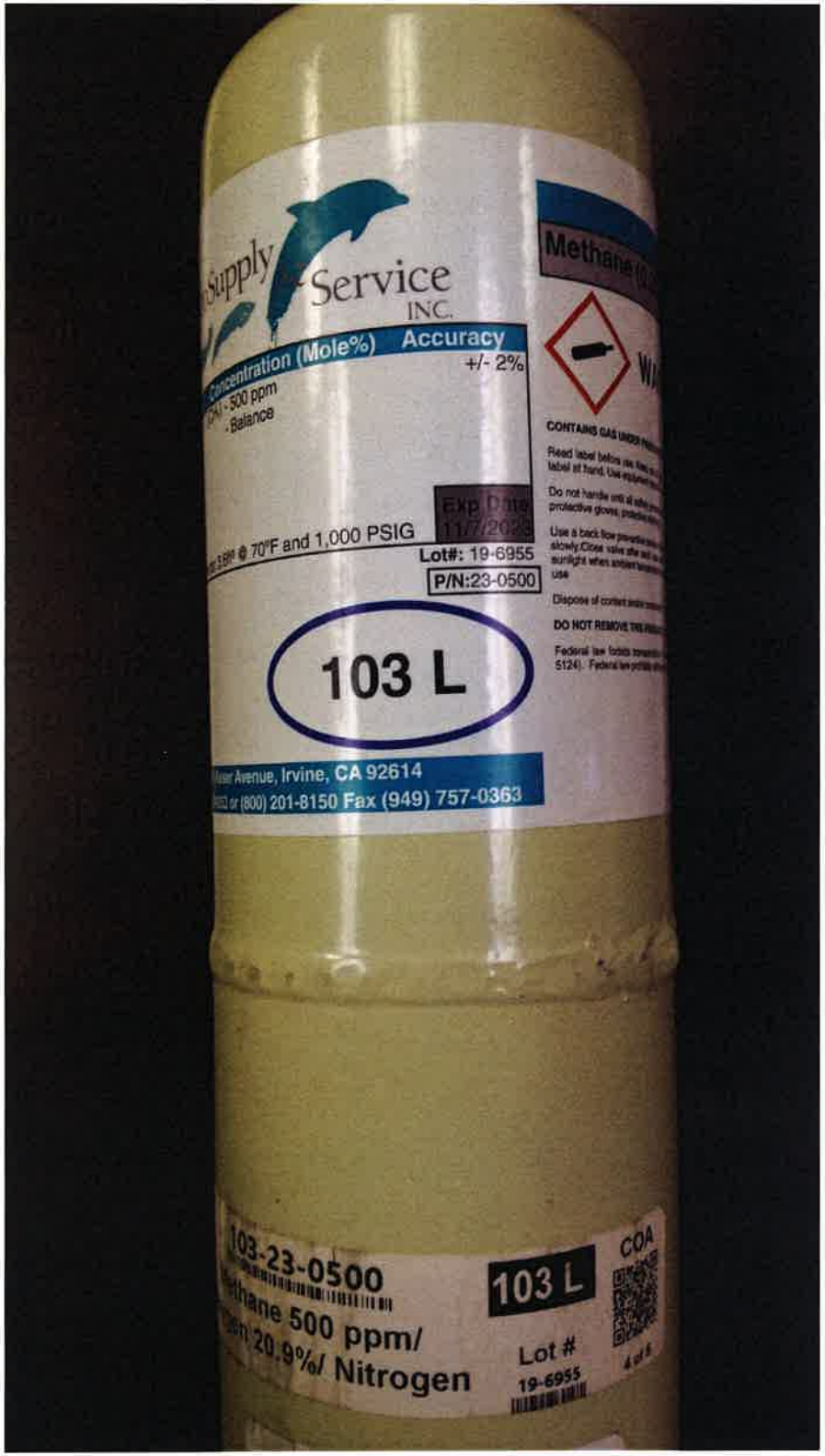
Method of Preparation:

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


Service
INC.
Accuracy
+/- 2%
Exp Date
Lot#: 19-6955
P/N:23-0500
103 L
(800) 201-8150 Fax (949) 757-0363
103-23-0500
103 L
Lot #
19-6955
COA

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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

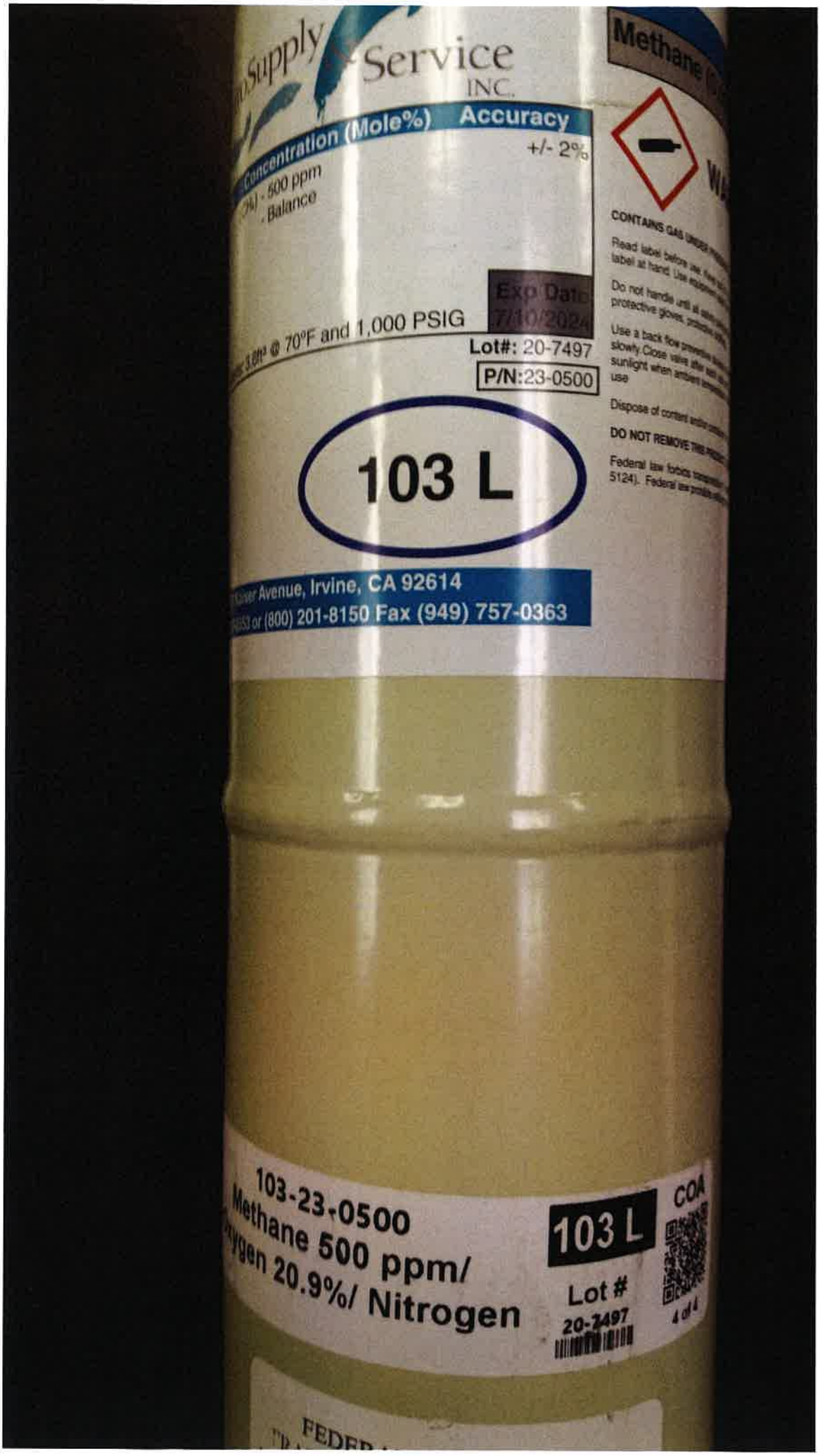
Method of Preparation:

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


Service
INC.
Methane
Concentration (Mole%)
Accuracy
+/- 2%
- 500 ppm
Balance
Exp Date
7/10/2024
Lot#: 20-7497
P/N:23-0500
103 L
Avenue, Irvine, CA 92614
or (800) 201-8150 Fax (949) 757-0363
103-23-0500
Methane 500 ppm/
ygen 20.9%/ Nitrogen
103 L
Lot #
20-7497
COA
4 of 4

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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

APPENDIX I

MONTHLY SOLID WASTE PLACEMENT TOTALS

Guadalupe Recycling & Disposal Facility, San Jose, CA
Solid Waste Placement Totals
October 1, 2020 through March 31, 2021

Month	Decomposed Waste Disposed in tons	Total Waste Disposed During Reporting Period
Oct-20	10,132	57,921
Nov-20	9,747	
Dec-20	9,956	
Jan-21	8,679	
Feb-21	9,086	
Mar-21	10,322	

APPENDIX J

WELLFIELD MONITORING LOGS

Guadalupe Recycling & Disposal Facility, San Jose, CA
Wellfield Monitoring Report -October 5, 7, 8, 9 and 10, 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	10/7/2020 15:34	48.4	42.2	0	9.4	139	139	-26.5	-26.3
GDLC0189	10/7/2020 15:26	38.6	37	0	24.4	137	137	-1.7	-1.7
GDLC0190	10/8/2020 16:29	48.7	40.5	0	10.8	120	120	-1.8	-1.8
GDLC0191	10/5/2020 12:19	29	36.9	0.1	34	119	120	-4.2	-1.2
GDLC0192	10/5/2020 12:49	50.4	45.1	0	4.5	123	124	-4.4	-4.7
GDLC0193	10/8/2020 13:13	50.7	42.6	0	6.7	120	120	-0.2	-0.2
GDLC0196	10/8/2020 14:47	44.8	37.2	0	18	105	103	-2.4	-1.0
GDLC0197	10/10/2020 11:36	38.3	33.4	0	28.3	118	118	-0.7	-0.7
GDLC0232	10/8/2020 14:35	45.9	39.6	0	14.5	108	108	-0.4	-0.4
GDLC0233	10/8/2020 14:30	34.3	32.3	1.3	32.1	103	103	-1.7	-1.4
GDLC0234	10/7/2020 15:19	55.3	44.6	0	0.1	94	94	-0.1	-0.1
GDLC0235	10/5/2020 12:05	48.6	46.8	0	4.6	119	120	-12.4	-11.9
GDLC0236	10/10/2020 12:31	47	40.5	0.1	12.4	124	125	-0.6	-0.6
GUAD0237	Offline for filling								
GDLC0238	10/10/2020 12:18	26.9	31.8	0	41.3	107	108	-0.8	-0.8
GDLC0239	10/5/2020 15:22	27.1	27.6	0	45.3	0	94	-0.2	-0.1
GDLC0240	10/5/2020 14:01	45.4	37.8	0.3	16.5	114	114	-5.2	-4.5
GDLC0241	10/5/2020 11:50	51.4	45.6	0	3	119	119	-3.6	-3.6
GDLC0242	10/5/2020 13:26	57.1	41.8	0	1.1	120	120	-35.5	-35.3
GDLC0243	10/5/2020 13:17	46.7	44.8	0	8.5	105	105	-0.1	-0.1
GDLC0244	10/7/2020 15:03	42.9	40.2	0	16.9	95	95	-0.1	-0.1
GUAD0062	10/7/2020 13:50	48.2	37.1	0	14.7	93	93	-1.5	-1.5
GUAD0065	10/7/2020 14:11	47.3	38.6	0	14.1	117	117	-34.9	-34.7
GUAD0066	10/7/2020 14:05	41.3	34.8	0	23.9	99	97	-2.2	-2.0
GUAD0081	10/10/2020 10:44	48.1	38.6	0	13.3	114	114	-22.3	-22.4
GUAD0082	10/10/2020 10:49	49.1	35	0.2	15.7	103	103	-9.4	-9.5
GUAD0112	10/10/2020 11:29	45.2	35.8	0	19	128	128	-0.3	-0.3
GUAD0114	10/9/2020 13:23	52	39.1	0	8.9	135	136	-1.8	-2.0
GUAD0122	10/10/2020 12:54	55.2	40.8	0	4	134	134	-30.9	-30.8
GUAD0124	10/5/2020 12:14	57.6	42.2	0	0.2	113	114	-27.7	-28.8
GUAD0129	10/5/2020 11:53	58.6	41.2	0	0.2	107	107	-31.0	-31.1
GUAD0131	10/9/2020 13:06	57.7	42.2	0	0.1	112	112	-19.0	-19.0
GUAD0134	10/7/2020 13:45	46.9	37.8	0.1	15.2	122	122	-1.0	-1.0
GUAD0135	10/5/2020 14:55	48.3	38.4	0	13.3	128	128	-2.3	-2.3
GUAD0138	10/7/2020 14:02	47.7	35.8	0	16.5	88	88	-0.3	-0.3
GUAD0142	10/7/2020 13:56	47.9	37.2	0	14.9	104	104	-4.9	-4.9
GUAD0146	10/10/2020 12:35	57.7	42.2	0	0.1	133	133	-31.1	-31.1
GUAD0147	10/10/2020 14:07	56.3	43.5	0.1	0.1	110	112	-2.3	-2.4
GUAD0149	Offline for filling								
GUAD0151	10/7/2020 15:30	55.2	37.1	0	7.7	136	136	-23.6	-23.4
GUAD0152	10/8/2020 15:10	57.1	42.6	0	0.3	132	132	-26.9	-26.3
GUAD0154	10/8/2020 13:24	56.1	43.7	0	0.2	139	139	-13.3	-13.5
GUAD0156	10/9/2020 15:46	54.7	37.9	0	7.4	119	0	-7.7	-9.7
GUAD0156	10/9/2020 15:47	55.2	38.1	0	6.7	119	119	-11.2	-11.4
GUAD0158	10/9/2020 15:53	53.3	38.6	0.2	7.9	129	129	-12.8	-12.8

GUAD0161	10/10/2020 13:33	50.4	38.2	0	11.4	136	135	-28.8	-29.3
GUAD0162	10/10/2020 13:36	54.3	38.7	0	7	139	139	-34.9	-34.9
GUAD0172	10/9/2020 13:11	47.1	38.6	0	14.3	112	112	-1.8	-1.8
GUAD0173	10/9/2020 13:16	48.7	39	0	12.3	114	115	-0.1	-0.1
GUAD0176	10/8/2020 14:39	52.9	42.6	0	4.5	109	109	-0.6	-0.6
GUAD0177	10/10/2020 11:51	49.9	39.6	0.1	10.4	126	126	-23.1	-23.4
GUAD0178	10/8/2020 15:04	51.4	40.9	1.5	6.2	120	120	-28.8	-28.7
GUAD0179	10/9/2020 15:39	51.1	36.9	0	12	111	112	-0.1	-0.1
GUAD0180	10/10/2020 12:43	54.9	42.6	0	2.5	129	129	-34.8	-34.7
GUAD0181	10/8/2020 15:33	54.5	45.4	0	0.1	138	138	-20.2	-22.2
GUAD0183	10/5/2020 12:01	57.3	42.5	0	0.2	128	128	-8.8	-9.4
GUAD0184	10/5/2020 11:57	43.2	43.6	0.1	13.1	127	127	-11.3	-11.4
GUAD0185	10/8/2020 13:30	54.9	43.5	0.4	1.2	133	133	-0.7	-0.8
GUAD0186	10/8/2020 13:10	51	42.8	0	6.2	129	129	-13.3	-15.2
GUAD0187	10/5/2020 12:52	57.8	42.1	0	0.1	123	123	-32.2	-32.3
GUAD0198	10/9/2020 15:43	52.2	39	0	8.8	120	120	-0.8	-1.0
GUAD0199	10/10/2020 12:59	56.5	39.9	0	3.6	128	128	-6.4	-7.0
GUAD0200	10/8/2020 14:57	54.4	42.2	0	3.4	128	128	-31.8	-32.2
GUAD0201	10/7/2020 15:22	55.4	44.4	0.1	0.1	111	111	-27.1	-27.3
GUAD0202	10/9/2020 15:57	50.8	37.2	0	12	103	103	-0.1	-0.1
GUAD0203	10/10/2020 11:43	55.8	41	0.8	2.4	105	106	-28.8	-27.5
GUAD0204	10/7/2020 15:38	53.4	44	0	2.6	128	129	-21.1	-21.7
GUAD0205	10/8/2020 15:44	44.9	40.1	0	15	115	126	-0.3	-0.3
GUAD0207	10/8/2020 15:20	54	45.7	0.2	0.1	127	127	-0.1	-0.1
GUAD0208	10/8/2020 15:30	33.9	34.7	0	31.4	122	122	-0.1	-0.1
GUAD0209	10/10/2020 12:51	27.6	30.1	0.1	42.2	128	128	-0.1	-0.1
GUAD0211	10/10/2020 12:38	42.8	37	0	20.2	110	111	-0.1	-0.1
GUAD0213	10/8/2020 13:35	51.9	42	0.1	6	132	131	-7.0	-7.7
GUAD0214	10/10/2020 13:28	39.2	34.7	0.4	25.7	125	125	-2.5	-2.5
GUAD0215	10/10/2020 12:26	50.4	41.5	0.1	8	129	129	-0.8	-0.8
GUAD0216	10/8/2020 15:50	49.5	42.5	0.1	7.9	128	128	-0.3	-0.2
GUAD0217	10/5/2020 12:27	46.8	39.7	0	13.5	123	115	-1.0	-0.9
GUAD0217	10/8/2020 13:18	46.5	41.6	0	11.9	125	125	-1.0	-1.0
GUAD0218	10/5/2020 12:45	50.7	39.8	0	9.5	117	117	-0.1	-0.2
GUAD0219	10/5/2020 12:56	50.5	39.2	0	10.3	121	121	-1.8	-1.8
GUAD0220	10/5/2020 13:00	51.9	41.8	0	6.3	124	123	-15.4	-17.4
GUAD0221	10/9/2020 13:00	51.5	41.4	0	7.1	115	115	-0.5	-0.7
GUAD0222	10/10/2020 11:21	36.6	31.5	0.2	31.7	108	108	-0.1	-0.1
GUAD0223	10/5/2020 15:04	46.5	36.4	0	17.1	121	120	-0.2	-0.1
GUAD0224	10/5/2020 15:00	35.8	32	0	32.2	112	112	-0.3	-0.2
GUAD0225	10/7/2020 14:19	46.4	37.9	0	15.7	119	119	-0.6	-0.6
GUAD0226	10/9/2020 12:33	51.9	41.9	0.2	6	119	119	-15.5	-15.5
GUAD0227	10/7/2020 14:17	44.4	38.1	0	17.5	117	116	-0.7	-0.4
GUAD0228	10/7/2020 14:49	35.6	33.5	0.3	30.6	103	103	-0.2	-0.1

GUAD0230	10/5/2020 15:16	48.8	35.4	0.1	15.7	112	112	-0.5	-0.5
GUADH11L	10/10/2020 10:40	52.5	34.4	2	11.1	81	81	-2.3	-2.4
GUADH12L	10/10/2020 10:56	42.6	25.7	4.3	27.4	78	79	-2.4	-2.3

Wells 114, 123, 134, 135, 149, 151, 154, 156, 158, 161, 162, 181, 182, 185 and 186 are approved to operate at a temperature HOV of 145°F.

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 -November 12, 25, 27, 28 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	11/28/2020 12:03	51.9	43.3	0	4.8	138.8	138.8	-15.8	-15.71
GDLC0189	11/28/2020 11:54	46.8	39.5	0.1	13.6	128	128	-1.2	-2.12
GDLC0190	11/27/2020 14:10	52.1	41.2	0	6.7	116.6	118.2	-1.21	-2.07
GDLC0191	11/12/2020 15:58	32.6	42.8	0.2	24.4	120	120	-1.4	-1.5
GDLC0191	11/25/2020 12:54	38.2	43.6	0.1	18.1	114.1	114.1	-1.79	-2.25
GDLC0192	11/12/2020 15:35	50.3	44.2	1.1	4.4	122	123	-3	-2.7
GDLC0192	11/25/2020 13:05	57.8	41.9	0.2	0.1	69.4	69.4	0.08	0.15
GDLC0192	11/25/2020 13:11	56.4	43.6	0	0	69.4	69.4	0.15	0.18
GDLC0193	11/28/2020 12:23	56.2	43.8	0	0	113.6	122	0.02	-0.56
GDLC0193	11/28/2020 12:25	NSPS/EG CAI;NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)							
GDLC0196	11/28/2020 13:31	59.8	40.2	0	0	83	83.8	-0.19	-0.26
GDLC0197	11/30/2020 11:45	33.8	31.5	0	34.7	110.2	110.2	-0.59	-0.6
GDLC0232	11/28/2020 15:13	54.7	40.4	0	4.9	107	113.6	-0.21	-0.83
GDLC0233	11/28/2020 15:09	45.9	37	0.1	17	65.8	65.8	-0.35	-0.35
GDLC0234	11/27/2020 13:53	53	42.3	0	4.7	112.8	114	-0.03	-0.12
GDLC0235	11/12/2020 15:39	51.6	47.8	0	0.6	119	119	-7.4	-7.9
GDLC0235	11/25/2020 12:43	53	46.8	0	0.2	116.6	116.6	-1.45	-1.43
GDLC0236	11/27/2020 14:32	49.9	41.5	0	8.6	123.8	124	-0.65	-0.8
GDLC0237	Offline for filling								
GDLC0238	11/27/2020 13:38	23.1	30.3	0	46.6	102	102	-0.09	-0.09
GDLC0239	11/12/2020 14:03	32.9	32.5	0.1	34.5	113	113	-2.6	-2.7
GDLC0239	11/27/2020 11:13	17	25.1	0	57.9	112.6	111.2	-1.51	-0.62
GDLC0240	11/12/2020 13:56	47.9	40.2	0.2	11.7	114	114	-4.7	-4.7
GDLC0240	11/27/2020 11:17	44.3	38.9	0	16.8	114.6	114.6	-5.11	-4.04
GDLC0241	11/12/2020 14:30	52.2	46.5	0	1.3	119	119	-3.6	-4.4
GDLC0241	11/25/2020 12:24	50	44	0.2	5.8	120	120.1	-5.06	-5
GDLC0242	11/12/2020 14:33	54.1	45.8	0	0.1	119	119	-39.5	-39.4
GDLC0242	11/27/2020 10:30	55.4	44.5	0.1	0	118.2	118.2	-40.14	-40.14
GDLC0243	11/12/2020 15:25	49.1	45.5	0.1	5.3	100	101	-0.2	-0.2
GDLC0243	11/25/2020 12:20	47.4	43.2	0.1	9.3	68.4	68.4	-0.41	-0.34
GDLC0244	11/27/2020 13:44	41.9	38.1	0.1	19.9	93.8	98.6	-0.05	-0.09
GUAD0062	11/27/2020 11:38	46.4	36	0	17.6	93.2	93.2	-1.89	-1.88
GUAD0065	11/27/2020 12:01	47.2	37.9	0	14.9	117.2	117.2	-37.31	-37.2
GUAD0066	11/27/2020 11:55	40.3	34.2	0	25.5	82.9	82.9	-2.34	-2.59
GUAD0081	11/28/2020 10:41	44.3	37.2	0	18.5	115.4	115.4	-25.78	-15.17
GUAD0082	11/28/2020 10:46	46	34.2	0.5	19.3	97.6	97.6	-9.17	-9.21
GUAD0112	11/27/2020 12:12	45.2	36.5	0	18.3	124.5	124.5	-0.06	-0.13
GUAD0114	11/28/2020 11:08	44.1	37.4	0.3	18.2	132.2	132.2	-5.11	-4.68
GUAD0122	11/27/2020 15:10	57.5	42.5	0	0	133.3	133.2	-16.26	-16.13
GUAD0124	11/12/2020 15:51	56.2	43.7	0	0.1	122	122	-17.8	-17.5
GUAD0124	11/25/2020 12:49	57.5	42.5	0	0	109.8	109.8	-20.72	-20.29
GUAD0129	11/25/2020 12:28	59	41	0	0	103.3	103.3	-35.28	-35.16
GUAD0131	11/28/2020 11:31	57.7	42.3	0	0	107.2	107.2	-42.23	-40.1
GUAD0134	11/27/2020 11:27	46.1	37	0	16.9	120.8	120.8	-1.16	-1.15

GUAD0135	11/12/2020 14:13	53	40.6	0	6.4	127	127	-1.9	-2.2
GUAD0135	11/27/2020 11:07	47.4	39.1	0	13.5	127.4	127.4	-3.03	-3.03
GUAD0138	11/27/2020 11:50	49.6	35.4	0	15	75.4	75.4	-0.29	-0.27
GUAD0142	11/27/2020 11:46	46.5	36.2	0	17.3	104	104	-5.43	-5.43
GUAD0146	11/27/2020 14:58	57.6	42.4	0	0	132.2	132.2	-14.33	-14.31
GUAD0147	11/28/2020 16:10	59.2	40.8	0	0	110.8	111	-0.82	-1
GUAD0149	Offline for filling								
GUAD0151	11/28/2020 11:58	59.8	38	0	2.2	132.8	132.8	-13.98	-13.97
GUAD0152	11/28/2020 13:21	58.2	41.7	0	0.1	131.4	131.4	-15.58	-15.36
GUAD0154	11/28/2020 12:31	57.3	42.7	0	0	139.6	139.6	-8.09	-8.21
GUAD0156	11/30/2020 13:34	42.9	41.6	0.1	15.4	107	107	-6.04	-4.41
GUAD0158	11/30/2020 13:38	48.1	49.6	0	2.3	110	110	-2.32	-2.31
GUAD0161	11/28/2020 12:43	51.7	39.4	0	8.9	136.5	136.4	-32.52	-33.77
GUAD0162	11/28/2020 12:40	53.1	41.8	0	5.1	139.5	139.6	-39.85	-39.86
GUAD0172	11/28/2020 11:37	46.2	37.2	0	16.6	114.3	114.2	-2.87	-2.87
GUAD0173	11/28/2020 11:14	45.7	37.9	0	16.4	114	114	-0.22	-0.22
GUAD0176	11/28/2020 15:16	58.1	41.9	0	0	103.5	104.8	-0.36	-0.51
GUAD0177	11/30/2020 18:10	58.5	41.1	0.4	0	126.5	126.5	-11.41	-11.41
GUAD0178	11/28/2020 13:17	56.9	41.6	0.8	0.7	109.4	109.4	-8.83	-8.45
GUAD0179	11/28/2020 15:27	55.2	38.1	0	6.7	110	111	0.02	-0.02
GUAD0180	11/27/2020 15:06	57	43	0	0	132.1	132.1	-14.78	-14.29
GUAD0181	11/27/2020 15:32	56.4	43.6	0	0	138.5	138.8	-13.28	-15.98
GUAD0183	11/25/2020 12:36	56.1	43.9	0	0	101.6	101.6	10.95	11.07
GUAD0183	11/25/2020 12:37	56.4	43	0.5	0.1	101.5	101.5	10.61	10.76
GUAD0184	11/12/2020 14:21	52.3	47.5	0	0.2	122	125	-4	-18.4
GUAD0184	11/12/2020 15:43	54.9	44.9	0.1	0.1	127	127	2.3	2.3
GUAD0184	11/12/2020 15:48	55.7	44.1	0	0.2	127	127	2.3	1.8
GUAD0184	11/25/2020 12:31	47.7	42.9	0.1	9.3	125.1	125	-25.73	-25.63
GUAD0185	11/28/2020 12:19	55.3	41.9	0	2.8	134.6	134.6	-0.8	-0.89
GUAD0186	11/28/2020 12:28	54.8	43.4	0	1.8	129.9	129.9	-9.5	-9.49
GUAD0187	11/12/2020 16:04	56.4	43.5	0	0.1	123	123	-36.8	-36.7
GUAD0187	11/25/2020 13:00	58.2	40.8	1	0	123.5	123.5	-37.78	-37.67
GUAD0198	11/28/2020 15:31	55.9	39.5	0.3	4.3	121	121.2	-0.42	-0.47
GUAD0199	11/27/2020 15:17	58.2	41.8	0	0	129.2	129.2	-3.05	-3.72
GUAD0200	11/28/2020 13:25	57.1	42.9	0	0	127	127.4	-15.78	-15.8
GUAD0201	11/27/2020 13:59	55.3	42.4	0.2	2.1	119.6	119.6	-17.8	-17.81
GUAD0202	11/28/2020 15:46	59.8	40.2	0	0	106	114.6	0.12	-0.08
GUAD0202	11/28/2020 15:48	NSPS/EG CAI;NSPS/EG Corrective Action Completed (CAC);NSPS/EG Parameter Corrective Action Completed (PCAC_STATIC_PRESSURE)							
GUAD0203	11/30/2020 11:53	56.8	43.1	0.1	0	100.2	100.2	-16.65	-16.7
GUAD0204	11/28/2020 12:06	56.3	43.7	0	0	131.4	131.4	-14.24	-16.18
GUAD0205	11/27/2020 14:05	46.5	41.1	0	12.4	130	130	-0.11	-0.15
GUAD0207	11/27/2020 15:24	43.9	38.9	0	17.2	125.6	125.6	-0.03	-0.02
GUAD0208	11/27/2020 15:27	41.4	40.6	0	18	124	124	-0.01	-0.01
GUAD0209	11/28/2020 13:10	45.6	42.9	0	11.5	122.6	122.6	0.06	-0.01
GUAD0211	11/27/2020 15:02	54.3	42.5	0	3.2	84.8	87.8	-0.27	-0.25
GUAD0213	11/28/2020 12:34	48	38.7	0	13.3	129.4	129.4	-9.65	-9.65
GUAD0214	11/28/2020 12:47	41.9	34.8	0	23.3	125.8	125.8	-2.71	-2.62
GUAD0215	11/27/2020 14:28	53.4	41.1	0.2	5.3	130.4	130.5	-0.64	-0.68

GUAD0216	11/27/2020 14:16	53.4	43.7	0	2.9	129.2	131.4	-0.06	-0.22
GUAD0217	11/30/2020 14:01	55	45	0	0	114.6	114.6	-0.88	-2.23
GUAD0218	11/12/2020 16:08	54.8	43.9	0	1.3	115	118	-0.4	-0.6
GUAD0218	11/25/2020 12:56	51.9	43.3	0.1	4.7	122.6	122.6	-0.95	-0.87
GUAD0219	11/25/2020 13:29	49.9	40	0	10.1	118.7	118.7	-2.03	-1.88
GUAD0220	11/25/2020 13:15	56.2	42.5	0.7	0.6	116.2	116.2	-1.57	-1.36
GUAD0221	11/25/2020 13:25	43.2	38.2	0	18.6	114	114	-1.71	-1.32
GUAD0222	11/27/2020 10:41	20.6	27.6	0	51.8	98.4	98.4	-0.19	-0.23
GUAD0223	11/27/2020 10:57	42.1	34.6	0	23.3	114	11.4	-0.15	-0.21
GUAD0224	11/12/2020 14:08	33.6	32.3	0	34.1	110	110	0.00	-0.1
GUAD0224	11/27/2020 11:01	28.9	30.5	0	40.6	111.8	111.8	-0.74	-0.7
GUAD0225	11/27/2020 12:15	47.6	36	0	16.4	118.4	118.4	-0.7	-0.7
GUAD0226	11/12/2020 14:17	51.3	41.9	0	6.8	118	118	-26.1	-25.9
GUAD0226	11/27/2020 11:21	47.6	40.5	0	11.9	118.4	118.4	-27.11	-26.29
GUAD0227	11/27/2020 12:06	44.9	37.9	0	17.2	112.8	112.8	-0.46	-0.37
GUAD0228	11/27/2020 12:22	31	31.5	0	37.5	104.4	104.4	-0.23	-0.25
GUAD0230	11/27/2020 10:35	44.6	36.9	0	18.5	110	110	-0.8	-0.75
GUADH11L	11/28/2020 10:36	48	31.5	3.7	16.8	67.7	67.7	-2.62	-2.54
GUADH12L	11/28/2020 10:53	0.4	4.5	20.6	74.5	64.6	64.6	-1.82	-1.8

Wells 114, 123, 134, 135, 149, 151, 154, 156, 158, 161, 162, 181, 182, 185 and 186 are approved to operate at a temperature HOV of 145°F.

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 -December 3, 10, 11, 14, 16, 17 and 18, 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	12/17/2020 14:40	46.9	42.5	0	10.6	137.4	137.4	-29.2	-29.2
GDLC0189	12/14/2020 15:50	38.4	37.7	0	23.9	137.1	137.9	-4.4	-4.4
GDLC0190	12/14/2020 15:38	43.4	38.7	0	17.9	125.8	125.1	-4.4	-2.7
GDLC0191	12/11/2020 12:23	39.1	42.5	0.1	18.3	80.8	78.5	-2.5	-2.0
GDLC0192	12/10/2020 15:32	56.8	43.2	0	0	72.8	72.8	0.1	0.1
GDLC0192	12/11/2020 12:04	55.9	44	0.2	-0.1	124.9	124.9	-10.7	-9.1
GDLC0193	12/14/2020 13:32	33.9	38	0	28.1	127.3	126.6	-1.1	-0.8
GDLC0196	12/16/2020 11:54	31.7	33.5	0	34.8	106.2	106.3	-6.0	-2.2
GDLC0197	12/17/2020 15:14	41.9	34.9	0	23.2	111.4	111.9	-0.9	-0.8
GDLC0232	12/16/2020 11:59	43	38.1	0	18.9	117.4	116.7	-1.4	-0.8
GDLC0233	12/17/2020 14:33	41.8	35.4	1.3	21.5	106.7	107.3	-4.1	-4.1
GDLC0234	12/14/2020 15:54	47.8	39.7	0	12.5	114.4	114.5	-0.4	-0.4
GDLC0235	12/11/2020 12:11	55.1	43.9	0	1	117.1	117.0	-17.3	-15.0
GDLC0236	12/14/2020 14:10	46.9	40.8	0	12.3	126.5	126.5	-1.1	-1.1
GDLC0237	Offline for filling								
GDLC0238	12/14/2020 13:09	21.2	29.6	0	49.2	105.5	105.2	-0.1	-0.1
GDLC0239	12/11/2020 13:13	20.8	26.5	0	52.7	111.0	106.6	-0.5	-0.3
GDLC0240	12/11/2020 13:18	43.7	38	0	18.3	116.6	116.7	-3.6	-2.2
GDLC0241	12/11/2020 12:51	51.6	44.7	0	3.7	121.6	121.6	-4.7	-4.7
GDLC0242	12/11/2020 13:29	55.3	44.7	0	0	117.6	119.0	-37.3	-37.3
GDLC0243	12/11/2020 12:44	47.8	43.5	0	8.7	85.7	85.9	-0.1	-0.1
GDLC0244	12/14/2020 13:15	37.7	38.3	0	24	106.1	107.2	-0.1	-0.1
GUAD0062	12/14/2020 11:41	45.4	36.1	0	18.5	93.2	93.3	-1.8	-1.8
GUAD0065	12/14/2020 12:05	45.1	37.7	0	17.2	115.6	115.6	-35.9	-34.8
GUAD0066	12/14/2020 12:00	37.3	33.7	0	29	58.1	58.2	-3.1	-2.5
GUAD0081	12/17/2020 16:30	51.3	39.5	0	9.2	113.7	113.7	-14.8	-14.8
GUAD0082	12/17/2020 16:33	47.7	34.9	0	17.4	100.3	100.4	-9.4	-9.6
GUAD0112	12/14/2020 12:26	43.9	36.1	0	20	124.3	124.0	-0.2	-0.2
GUAD0114	12/16/2020 13:21	45.1	36.4	0	18.5	135.0	135.0	-3.5	-3.1
GUAD0122	12/14/2020 14:41	56.7	43.2	0	0.1	133.7	133.7	-33.1	-34.1
GUAD0124	12/11/2020 12:21	56.9	43.1	0	0	127.1	127.1	-27.9	-27.9
GUAD0129	12/11/2020 12:55	59.3	40.7	0	0	101.1	101.2	-33.5	-33.5
GUAD0131	12/17/2020 13:47	56.5	43.5	0	0	107.1	107.6	-41.9	-42.0
GUAD0134	12/14/2020 12:43	44.8	36.5	0	18.7	123.0	122.9	-1.0	-0.9
GUAD0135	12/11/2020 13:08	46.9	36.4	0.6	16.1	130.3	130.3	-2.7	-2.7
GUAD0138	12/14/2020 11:53	46.1	35.2	0	18.7	77.6	77.7	-0.4	-0.3
GUAD0142	12/14/2020 11:47	44.3	35.5	0	20.2	105.2	105.2	-5.4	-5.3
GUAD0146	12/14/2020 14:16	56.1	41.5	0.3	2.1	132.3	132.3	-35.3	-35.3
GUAD0147	12/17/2020 14:27	57.7	42.3	0	0	113.2	114.2	-3.0	-3.0
GUAD0149	Offline for filling								
GUAD0151	12/17/2020 14:14	58.3	38.4	0	3.3	131.3	131.3	-23.8	-23.7
GUAD0152	12/16/2020 11:31	54.3	41	0	4.7	131.3	131.4	-25.5	-26.1
GUAD0154	12/14/2020 13:50	57.3	42.7	0	0	139.1	139.2	-11.1	-11.5
GUAD0156	12/16/2020 12:27	37.2	33.6	0	29.2	114.9	113.3	-4.0	-3.2

GUAD0158	12/14/2020 14:30	39.1	43.1	0	17.8	113.6	111.3	-6.0	-4.9
GUAD0161	12/16/2020 13:02	49.3	38	0	12.7	138.6	138.6	-31.4	-32.3
GUAD0162	12/16/2020 13:09	51.9	40.7	0	7.4	139.8	139.6	-38.1	-38.1
GUAD0172	12/17/2020 13:54	49.6	37.9	0	12.5	111.8	111.8	-3.0	-3.0
GUAD0173	12/3/2020 11:43	47.2	37.3	0.1	15.4	96.8	97.3	-0.1	-0.1
GUAD0173	12/17/2020 14:09	56.1	41.1	0	2.8	109.6	109.6	-0.5	-0.4
GUAD0173	12/28/2020 11:55	CO was 5 ppm							
GUAD0173	12/28/2020 11:56	38.9	35.7	0	25.4	109.1	109.1	-0.6	-0.5
GUAD0176	12/16/2020 12:15	38.2	35.9	0	25.9	104.5	104.5	-0.7	-0.5
GUAD0177	12/17/2020 14:20	51.7	42.3	0	6	126.2	126.2	-22.1	-22.5
GUAD0178	12/16/2020 11:36	54.8	41.9	0.3	3	123.6	125.2	-37.0	-32.8
GUAD0179	12/17/2020 14:58	32.5	35.4	0.1	32	104.1	104.0	-0.5	-0.5
GUAD0180	12/14/2020 14:23	55.9	43.9	0	0.2	132.2	132.2	-37.0	-37.5
GUAD0180	12/14/2020 14:25	55.9	44.1	0	0	132.1	132.3	-36.8	-36.8
GUAD0181	12/14/2020 14:47	52.7	43.9	0	3.4	138.4	138.5	-35.1	-35.1
GUAD0183	12/10/2020 15:37	56.2	43.8	0	0	71.2	71.2	15.0	15.0
GUAD0183	12/11/2020 12:15	56	43.8	0.2	0	128.3	128.2	-10.6	-10.6
GUAD0184	12/11/2020 12:59	48.5	42.5	0.1	8.9	124.8	124.9	-23.0	-22.9
GUAD0185	12/14/2020 13:25	54	42.1	0	3.9	133.2	133.4	-1.4	-1.5
GUAD0186	12/14/2020 13:41	49.9	42.7	0	7.4	133.8	133.8	-11.7	-11.8
GUAD0187	12/17/2020 13:34	56.6	43.4	0	0	121.6	121.6	-36.3	-36.2
GUAD0198	12/16/2020 12:23	54.1	39.3	0	6.6	123.6	124.0	-3.1	-3.6
GUAD0199	12/16/2020 11:42	57.1	40.6	0	2.3	129.1	129.2	-25.1	-25.7
GUAD0200	12/16/2020 11:47	54.6	41.8	0	3.6	126.7	126.3	-32.9	-32.9
GUAD0201	12/17/2020 14:49	53.9	44.6	0.3	1.2	115.4	115.7	-28.7	-28.8
GUAD0202	12/16/2020 12:53	47.9	34.9	0	17.2	121.7	122.4	-0.8	-0.8
GUAD0203	12/17/2020 16:11	48.6	37.3	2.8	11.3	73.5	73.6	-31.5	-31.5
GUAD0204	12/14/2020 15:59	54.8	42.4	0.3	2.5	116.2	116.4	-28.5	-28.5
GUAD0205	12/14/2020 15:41	35.7	36.6	0	27.7	130.8	130.5	-0.8	-0.6
GUAD0207	12/14/2020 14:59	32.7	34.3	0	33	131.4	131.2	-0.2	-0.1
GUAD0208	12/14/2020 14:55	32.2	34.6	0	33.2	126.2	126.1	-0.7	-0.5
GUAD0209	12/14/2020 14:38	37.4	39.3	0	23.3	133.1	132.4	-0.5	-0.4
GUAD0209	12/16/2020 11:22	CO was 5 ppm							
GUAD0209	12/16/2020 11:24	39.9	40.6	0.1	19.4	129.8	129.8	0.0	0.0
GUAD0209	12/18/2020 10:30	CO was 5 ppm							
GUAD0209	12/18/2020 13:25	CO was 5 ppm							
GUAD0209	12/18/2020 13:30	37	39.4	0.1	23.5	130.9	130.5	0.0	0.0
GUAD0211	12/14/2020 14:19	49.9	42.3	0	7.8	118.0	118.2	-0.6	-0.5
GUAD0213	12/14/2020 13:45	46.3	39.2	0	14.5	134.3	134.4	-9.6	-9.6
GUAD0214	12/16/2020 13:24	36.3	32.5	0	31.2	126.4	125.3	-1.0	-0.8
GUAD0215	12/14/2020 14:07	49.6	41.9	0	8.5	130.5	130.5	-1.0	-1.0
GUAD0216	12/14/2020 15:33	53.6	42.1	0.1	4.2	124.7	125.4	-0.7	-0.5
GUAD0217	12/11/2020 12:33	47.9	42.7	0	9.4	126.7	126.6	-3.2	-3.2
GUAD0218	12/11/2020 12:34	46.7	42.5	0	10.8	125.1	125.0	-1.3	-1.3
GUAD0219	12/3/2020 11:24	56.4	42.1	0	1.5	103.0	111.8	-0.2	-0.3
GUAD0219	12/11/2020 12:39	53.9	41.6	0	4.5	117.4	119.3	-0.6	-0.6
GUAD0219	12/28/2020 11:45	CO was 5 ppm							
GUAD0219	12/28/2020 11:49	50.5	41.2	0.2	8.1	118.1	118.2	-1.1	-1.1

GUAD0220	12/11/2020 12:01	57.8	41.9	0.2	0.1	122.1	122.0	-35.0	-34.9
GUAD0221	12/17/2020 13:37	45.9	39.3	0	14.8	115.1	115.1	-1.4	-1.4
GUAD0222	12/14/2020 11:12	35.9	30.7	0	33.4	106.7	107.0	-0.2	-0.2
GUAD0223	12/11/2020 13:43	45.6	35.1	0.1	19.2	121.8	122.3	-0.3	-0.3
GUAD0224	12/11/2020 13:36	27.3	29	0	43.7	112.7	112.3	-0.7	-0.6
GUAD0225	12/14/2020 12:21	45.2	36.7	0	18.1	120.8	121.0	-0.7	-0.7
GUAD0226	12/11/2020 13:04	47.6	40.3	0	12.1	117.9	118.0	-25.0	-23.5
GUAD0227	12/14/2020 12:18	46.2	38.3	0	15.5	115.8	115.4	-0.4	-0.4
GUAD0228	12/14/2020 12:34	30.1	31.8	0	38.1	104.7	106.4	-0.3	-0.3
GUAD0230	12/14/2020 11:36	43.6	35.7	0	20.7	112.3	112.1	-0.6	-0.5
GUADH11L	12/17/2020 16:25	48.4	33.5	2.9	15.2	62.1	62.1	-2.6	-2.6
GUADH12L	12/11/2020 14:02	31.3	19.8	8.5	40.4	68.2	67.2	-1.7	-1.6

Wells 114, 123, 134, 135, 149, 151, 154, 156, 158, 161, 162, 181, 182, 185 and 186 are approved to operate at a temperature HOV of 145°F.

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 -January 1, 4, 13, 18, and 19, 2021

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	1/13/2021 15:11	40.2	37.6	0	22.2	137.7	137.6	-29.77	-21.87
GDLC0189	1/13/2021 15:06	27	30	0	43	137.2	133.1	-2.79	-0.7
GDLC0190	1/18/2021 13:40	45.6	38.4	0	16	120	122.8	-1.48	-1.49
GDLC0191	1/4/2021 13:35	17	36	0	47	104	104	-2.8	-2.7
GDLC0191	1/4/2021 13:40	CO was 20 ppm							
GDLC0191	1/13/2021 13:56	24.1	34.8	0	41.1	123.6	123.2	-1.71	-0.05
GDLC0192	1/13/2021 13:36	46.6	45.1	0	8.3	124.1	124.1	-8.75	-9.87
GDLC0193	1/18/2021 14:18	46	39.2	0	14.8	123	124	-0.15	-0.2
GDLC0196	1/13/2021 16:36	57.4	37	0.6	5	71.5	72	-0.1	-0.19
GDLC0197	1/18/2021 15:38	36.4	32.8	0	30.8	75.7	75.8	-0.44	-0.44
GDLC0232	1/13/2021 16:25	34.6	33.4	0	32	114.6	114.4	-1.12	-0.97
GDLC0233	1/13/2021 16:31	30.4	30.2	0.6	38.8	71.7	71.5	-3.68	-2.42
GDLC0234	1/13/2021 16:02	31.3	32.2	0	36.5	115.8	115.2	-0.57	-0.44
GDLC0235	1/13/2021 13:40	45.3	44.8	0	9.9	120.3	120.1	-14.28	-18.98
GDLC0236	1/18/2021 13:10	37.2	37.5	0	25.3	127.8	127.7	-0.95	-0.77
GDLC0237	Offline for filling								
GDLC0238	1/14/2021 15:23	23.8	29.6	0.1	46.5	98.3	99	-0.06	-0.01
GDLC0239	1/13/2021 10:45	32.7	31.2	0	36.1	111.5	111.6	-2.29	-2.28
GDLC0240	1/13/2021 11:00	45.2	37.9	0	16.9	116.6	116.4	-2.25	-1.7
GDLC0241	1/13/2021 11:09	48.8	43.9	0	7.3	122.1	122.1	-4.04	-4
GDLC0242	1/13/2021 11:04	55.9	44.1	0	0	119.6	119.7	-40.45	-40.42
GDLC0243	1/13/2021 13:27	35.6	38.1	0	26.3	96.8	97.6	-0.34	-0.03
GDLC0244	1/14/2021 15:29	30.8	33.8	0	35.4	108.1	108.4	-0.09	-0.1
GUAD0062	1/13/2021 10:09	45.7	35.6	0.2	18.5	93.8	93.8	-2.3	-2.24
GUAD0065	1/15/2021 12:31	45.5	36.9	0	17.6	110.6	110.6	-36.66	-35.56
GUAD0066	1/15/2021 12:19	40.8	33.2	0	26	88.6	88.6	-1.75	-1.29
GUAD0081	1/18/2021 16:18	51.7	39.1	0	9.2	114.2	114.3	-16.55	-16.53
GUAD0082	1/18/2021 16:05	50.6	38.3	0	11.1	102.6	102.6	-8.86	-8.85
GUAD0112	1/15/2021 12:51	43.2	35.1	0	21.7	124.4	124.4	-0.39	-0.42
GUAD0114	1/19/2021 12:00	48.3	38.1	0.1	13.5	130	130	-2.86	-2.85
GUAD0122	1/14/2021 15:55	56.5	41.7	0	1.8	129.3	129.3	-34.32	-34.32
GUAD0124	1/4/2021 13:40	56	43.9	0	0.1	116	116	-3.6	-3.6
GUAD0124	1/4/2021 13:42	CO was 20 ppm							
GUAD0124	1/13/2021 14:00	56.9	41.8	0	1.3	120.6	120.5	-3.41	-3.39
GUAD0124	1/18/2021 12:24	57	43	0	0	118.6	123.9	-3.76	-14.94
GUAD0124	1/18/2021 12:30	CO was 20 ppm							
GUAD0129	1/13/2021 11:15	59.2	40.8	0	0	101.4	101.4	-35.67	-35.72
GUAD0131	1/18/2021 12:36	58.3	41.7	0	0	102.2	102.3	-42.22	-41.65
GUAD0134	1/13/2021 10:41	44.4	35.6	0.1	19.9	123.3	123.2	-1.26	-1.2
GUAD0135	1/13/2021 10:51	47.2	38.4	0	14.4	130.5	130.5	-3.51	-3.43
GUAD0138	1/15/2021 12:27	46.6	35	0	18.4	85.8	85.8	-0.41	-0.4
GUAD0142	1/15/2021 12:15	47.1	35.5	0	17.4	104.8	104.8	-4.03	-3.93
GUAD0146	1/14/2021 16:59	57.5	42	0	0.5	132.3	132.3	-37.41	-37.84

GUAD0147	1/13/2021 16:17	58	39.7	0	2.3	111.2	113.7	-2.47	-2.48
GUAD0149	Offline for filling								
GUAD0151	1/13/2021 15:00	50.6	34.2	0.1	15.1	131.5	131.5	-25.96	-25.95
GUAD0152	1/18/2021 15:05	56.5	40.9	0	2.6	131.9	131.9	-31.61	-31.57
GUAD0154	1/18/2021 14:27	56.8	41.5	0	1.7	139.2	139.2	-9.22	-9.23
GUAD0156	1/15/2021 13:19	37.8	34.2	0	28	117.3	117.2	-2.92	-2.95
GUAD0158	1/15/2021 13:23	33.4	37.2	0	29.4	114.4	113.6	-2.53	-1.54
GUAD0161	1/14/2021 13:46	46.5	37.6	0	15.9	138.4	138.4	-32.99	-32.46
GUAD0162	1/14/2021 13:42	50.4	40.2	0	9.4	143.4	143.4	-38.51	-38.49
GUAD0172	1/18/2021 12:47	48.3	37.3	0	14.4	112.4	112.4	-2.91	-2.9
GUAD0173	1/4/2021 14:10	39.9	37.5	0	22.6	90	87	-0.7	-0.7
GUAD0173	1/4/2021 14:12	CO was 10 ppm							
GUAD0173	1/18/2021 11:35	43.3	36.4	0	20.3	121	121	-0.33	-0.36
GUAD0173	1/18/2021 11:40	CO was 0 ppm							
GUAD0176	1/13/2021 16:21	45.4	37.9	0	16.7	74	73.8	-1.26	-1.23
GUAD0177	1/18/2021 14:55	45.9	38.9	0	15.2	126.9	126.9	-24.88	-24.83
GUAD0178	1/14/2021 15:43	54.5	41.4	0.1	4	127.2	127.9	-32.63	-38.41
GUAD0179	1/15/2021 13:37	21.2	26.6	0	52.2	103.2	103.2	-0.28	-0.18
GUAD0180	1/14/2021 16:54	52.6	42.5	0	4.9	129.1	129.3	-37.8	-37.82
GUAD0181	1/14/2021 16:24	51.8	42.7	0	5.5	139.5	139.5	-37.37	-36.97
GUAD0183	1/13/2021 13:46	57.4	42.6	0	0	128.4	128.4	-4.73	-4.22
GUAD0184	1/13/2021 11:43	42.5	40.2	0	17.3	125.8	127.2	-24.94	-19.69
GUAD0185	1/18/2021 14:22	49.8	40.3	0	9.9	137.8	137.8	-1.85	-1.82
GUAD0186	1/18/2021 14:08	49.5	40.7	0	9.8	133.3	133.6	-10.05	-11.29
GUAD0187	1/18/2021 15:46	58.3	41.7	0	0	122.1	122.2	-36.85	-36.83
GUAD0198	1/15/2021 13:13	39.7	34.7	0	25.6	126.2	126.2	-4.3	-2.7
GUAD0199	1/14/2021 15:50	42.6	36.9	0	20.5	129.7	129.8	-28.34	-24.07
GUAD0200	1/14/2021 15:39	51.3	40	0	8.7	126.7	126.8	-36.75	-36.74
GUAD0201	1/13/2021 16:07	52.4	41.6	0.2	5.8	118.4	118.4	-29.62	-29.14
GUAD0202	1/15/2021 14:15	39.2	32.7	0	28.1	123.8	123.8	-0.9	-0.66
GUAD0203	1/18/2021 15:32	49.2	37.1	1.9	11.8	85.5	85.5	-33.22	-33.77
GUAD0204	1/13/2021 15:15	49.1	43.1	0	7.8	131.6	131.6	-30.28	-29.68
GUAD0205	1/19/2021 11:46	39.9	36.5	0	23.6	103.9	97.9	-0.26	-0.02
GUAD0207	1/14/2021 16:13	30.3	31.7	0	38	131.3	131.3	-0.04	-0.05
GUAD0208	1/14/2021 16:20	40.3	38.4	0	21.3	120.7	122.3	-0.04	-0.03
GUAD0209	1/14/2021 15:55	CO was 5 ppm							
GUAD0209	1/14/2021 16:01	41.9	41.8	0	16.3	126.5	124.2	-0.04	-0.01
GUAD0211	1/14/2021 16:49	41	38.7	0	20.3	117.7	117.7	-0.77	-0.61
GUAD0213	1/19/2021 11:40	48	37.9	0.2	13.9	134.4	134.5	-10.59	-10.58
GUAD0214	1/15/2021 13:31	47.5	36.7	0	15.8	125.2	125.2	-0.62	-0.65
GUAD0215	1/18/2021 13:18	45.8	40.6	0	13.6	131.5	131.5	-1.02	-0.95
GUAD0216	1/18/2021 13:23	38.5	36.5	0.1	24.9	134	133.5	-0.68	-0.53
GUAD0217	1/13/2021 13:52	39.1	39	0	21.9	126.6	122.3	-0.47	-0.08
GUAD0218	1/13/2021 14:08	31.4	34	0	34.6	125.2	119.8	-0.66	-0.1
GUAD0219	1/4/2021 14:02	48.4	42.1	0	9.5	117	117	-1.7	-1.4
GUAD0219	1/4/2021 14:04	CO was 10 ppm							
GUAD0219	1/13/2021 14:20	49.2	39.6	0	11.2	119.6	119.6	-0.15	-0.11
GUAD0219	1/18/2021 11:15	CO was 0 ppm							

GUAD0219	1/18/2021 11:23	50.7	39.5	0.1	9.7	117.7	118.5	-0.81	-0.81
GUAD0220	1/13/2021 13:32	50	42.5	0	7.5	123.2	123.2	-13.06	-16.33
GUAD0221	1/13/2021 14:25	41.2	36.5	0	22.3	116.4	116.2	-0.83	-0.24
GUAD0222	1/13/2021 10:16	33.6	30.6	0	35.8	107.6	107.9	-0.12	-0.15
GUAD0223	1/13/2021 10:26	40.6	33.8	0	25.6	121.2	121.6	-0.1	-0.17
GUAD0224	1/13/2021 10:31	20.2	25.2	0	54.6	62.3	61.8	-0.14	-0.34
GUAD0225	1/15/2021 12:44	43.3	35.1	0	21.6	123.8	123.8	-0.82	-0.63
GUAD0226	1/13/2021 10:56	46.7	39.7	0	13.6	118.5	118.5	-26.13	-26.15
GUAD0227	1/15/2021 12:41	43.6	36.8	0	19.6	119.8	119.8	-0.48	-0.14
GUAD0228	1/15/2021 13:00	33.9	32.4	0	33.7	113	113	-0.13	-0.19
GUAD0230	1/13/2021 10:20	46.8	36.8	0	16.4	111.2	111.5	-0.4	-0.37
GUADH11L	1/18/2021 15:52	54.4	34.8	1.1	9.7	68.9	68.8	-2.15	-2.13
GUADH12L	1/18/2021 16:14	47.1	26	3.5	23.4	78.2	78.2	-2.19	-2.19

Wells 114, 123, 134, 135, 149, 151, 154, 156, 158, 161, 162, 181, 182, 185 and 186 are approved to operate at a temperature HOV of 145°F.

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 -February 8, 9, 15, 16, 18 and 24, 2021

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	2/15/2021 16:26	49.8	42.9	0.0	7.3	137.3	137.4	-14.2	-14.1
GDLC0188	2/24/2021 19:10	CO was 0 ppm							
GDLC0189	2/15/2021 16:31	46.3	39.2	0.3	14.2	66.4	66.3	-0.2	-0.2
GDLC0190	2/15/2021 16:36	54.5	41.9	0.0	3.6	116.9	117.2	-1.5	-2.2
GDLC0191	2/15/2021 13:05	56.3	42.4	0.0	1.3	86.2	84.3	-0.2	-0.2
GDLC0192	2/15/2021 12:51	50.2	43.6	0.0	6.2	124.0	124.1	-9.7	-7.9
GDLC0193	2/9/2021 10:39	55.8	43.2	0.1	0.9	119.3	119.6	-0.5	-0.5
GDLC0196	2/9/2021 15:40	58.1	38.9	0.3	2.7	71.7	71.5	-0.8	-0.9
GDLC0197	2/18/2021 14:04	39.9	34.4	0.0	25.7	66.0	66.0	-0.5	-0.4
GDLC0232	2/15/2021 15:52	45.7	36.9	0.0	17.4	91.2	91.4	-0.2	-0.2
GDLC0233	2/9/2021 14:28	42.8	34.5	0.0	22.7	83.0	83.5	-0.3	-0.3
GDLC0234	2/15/2021 15:39	43.0	36.4	0.0	20.6	117.1	116.6	-0.8	-0.6
GDLC0235	2/15/2021 12:54	49.0	44.5	0.0	6.5	120.1	120.0	-16.7	-21.1
GDLC0236	2/18/2021 13:55	42.9	38.0	0.0	19.1	123.6	123.6	-0.4	-0.4
GUAD0237	Offline for filling								
GDLC0238	2/15/2021 15:16	27.1	30.3	0.1	42.5	103.4	103.3	-0.3	-0.1
GDLC0239	2/15/2021 12:09	29.5	30.1	0.0	40.4	109.7	108.4	-0.5	-0.4
GDLC0240	2/9/2021 13:54	55.0	41.2	0.0	3.8	116.3	116.5	-1.5	-1.6
GDLC0241	2/9/2021 13:11	51.9	44.2	0.0	3.9	122.3	122.4	-4.3	-4.3
GDLC0242	2/15/2021 12:44	55.9	44.1	0.0	0.0	108.7	108.6	-42.1	-42.1
GDLC0243	2/9/2021 12:41	50.8	41.9	0.0	7.3	68.0	67.7	0.0	0.0
GDLC0244	2/15/2021 15:31	34.0	34.8	0.0	31.2	106.7	101.5	-0.1	0.0
GUAD0062	2/11/2021 10:58	49.6	36.2	0.4	13.8	92.4	92.4	-1.9	-1.9
GUAD0065	2/15/2021 11:28	55.2	39.8	0.0	5.0	107.4	107.5	-40.4	-40.4
GUAD0066	2/15/2021 11:13	58.0	37.2	0.0	4.8	74.4	74.6	-1.7	-1.7
GUAD0081	2/16/2021 16:21	53.1	38.8	0.0	8.1	113.0	113.0	-17.3	-17.3
GUAD0082	2/16/2021 16:25	50.1	35.7	0.0	14.2	69.7	69.6	-9.5	-9.5
GUAD0112	2/15/2021 11:43	48.6	36.2	0.0	15.2	124.0	124.0	-0.3	-0.3
GUAD0114	2/16/2021 15:30	50.1	38.5	0.1	11.3	134.8	134.8	-2.6	-2.6
GUAD0122	2/16/2021 11:01	56.5	42.5	0.0	1.0	133.5	133.6	-36.4	-34.5
GUAD0124	2/15/2021 13:09	57.4	42.6	0.0	0.0	119.3	119.7	-7.8	-8.3
GUAD0124	2/24/2021 17:28	56.2	43.5	0.1	0.2	115.0	115.0	-1.8	-1.6
GUAD0129	2/9/2021 13:16	59.0	41.0	0.0	0.0	101.0	101.0	-38.8	-38.8
GUAD0129	2/12/2021 14:14	55.1	41.9	0.0	3.0	121.6	121.6	-39.9	-39.9
GUAD0131	2/16/2021 15:39	58.5	41.5	0.1	-0.1	103.2	103.9	-42.5	-41.2

GUAD0134	2/15/2021 15:03	51.9	36.6	0.0	11.5	124.0	123.9	-1.1	-1.1
GUAD0135	2/15/2021 12:03	49.1	38.4	0.0	12.5	129.3	129.0	-2.8	-2.8
GUAD0138	2/15/2021 15:09	51.8	33.6	0.1	14.5	69.8	69.9	-0.3	-0.3
GUAD0142	2/15/2021 11:16	50.6	36.5	0.0	12.9	104.8	104.8	-4.2	-4.2
GUAD0146	2/8/2021 10:28	57.1	42.9	0.0	0.0	133.0	133.0	-35.8	-36.6
GUAD0147	2/15/2021 15:57	59.1	40.9	0.0	0.0	112.8	113.5	-1.2	-1.2
GUAD0149	Offline for filling								
GUAD0151	2/9/2021 14:08	52.7	35.4	0.0	11.9	131.7	131.6	-2.1	-2.1
GUAD0151	2/9/2021 15:09	54.0	35.2	0.0	10.8	132.7	132.8	-5.7	-5.7
GUAD0152	2/16/2021 11:25	57.3	42.1	0.0	0.6	129.7	130.0	-20.7	-21.2
GUAD0154	2/16/2021 13:40	57.9	42.1	0.0	0.0	135.9	135.9	-4.4	-4.4
GUAD0156	2/9/2021 14:45	41.4	39.3	0.0	19.3	82.0	82.0	-0.4	-0.4
GUAD0158	2/8/2021 10:51	24.8	30.3	4.7	40.2	80.7	77.7	-1.1	-1.0
GUAD0161	2/16/2021 13:32	53.7	39.7	0.0	6.6	138.3	138.3	-32.2	-31.8
GUAD0162	Offline for filling								
GUAD0172	2/16/2021 15:21	49.3	36.4	0.2	14.1	109.6	109.6	-3.0	-3.0
GUAD0173	2/24/2021 16:47	49.5	39.6	0.0	10.9	120.0	120.0	-0.1	-0.1
GUAD0173	2/16/2021 15:23	53.2	39.0	0.0	7.8	106.6	106.6	-0.2	-0.2
GUAD0173	2/24/2021 18:10	CO was 0 ppm							
GUAD0176	2/9/2021 15:52	53.4	40.5	0.0	6.1	98.6	98.6	-0.4	-0.3
GUAD0176	2/15/2021 16:06	53.3	39.8	0.0	6.9	107.6	107.5	-1.0	-1.0
GUAD0177	2/15/2021 16:22	54.0	40.5	0.0	5.5	125.8	126.0	-16.6	-18.5
GUAD0178	2/18/2021 13:38	40.1	29.5	4.7	25.7	81.3	78.6	-35.0	-34.9
GUAD0179	2/9/2021 14:31	39.0	31.4	0.0	29.6	99.8	99.8	-0.2	-0.2
GUAD0180	2/8/2021 10:44	53.8	43.0	0.0	3.2	131.3	131.3	-37.9	-38.3
GUAD0181	2/16/2021 10:53	55.3	44.0	0.1	0.6	139.2	139.0	-35.3	-36.3
GUAD0183	2/15/2021 13:14	56.9	43.1	0.0	0.0	127.2	127.3	-9.0	-10.0
GUAD0184	2/9/2021 13:20	47.8	43.6	0.0	8.6	126.4	126.5	-18.3	-18.3
GUAD0185	2/8/2021 16:37	51.3	39.6	0.1	9.0	133.0	133.0	-2.1	-2.1
GUAD0186	2/16/2021 13:45	55.8	43.2	0.0	1.0	125.7	129.5	-5.0	-5.1
GUAD0187	2/9/2021 13:26	57.2	42.8	0.0	0.0	121.8	121.8	-39.4	-39.3
GUAD0198	2/9/2021 14:36	51.5	38.8	0.0	9.7	121.4	121.4	-1.3	-1.3
GUAD0199	2/16/2021 11:04	51.0	38.3	0.0	10.7	129.7	129.7	-19.6	-19.6
GUAD0200	2/16/2021 15:53	56.7	40.6	0.5	2.2	124.9	124.4	-24.9	-24.8
GUAD0201	2/15/2021 15:35	54.5	41.9	0.4	3.2	110.4	110.5	-19.6	-19.6
GUAD0202	2/16/2021 13:17	54.0	36.4	0.2	9.4	114.8	116.1	-0.1	-0.1
GUAD0202	2/16/2021 13:20	51.7	37.5	0.0	10.8	121.2	121.6	-0.6	-0.6
GUAD0203	2/15/2021 15:43	49.4	37.3	2.5	10.8	78.1	78.1	-21.3	-20.7
GUAD0204	2/9/2021 16:08	56.0	44.0	0.0	0.0	106.7	106.9	-2.4	-2.4
GUAD0205	2/15/2021 16:41	52.1	41.1	0.0	6.8	108.2	113.8	-0.5	-0.6
GUAD0207	2/16/2021 11:21	47.4	40.7	0.0	11.9	126.1	127.3	0.0	0.0
GUAD0208	2/16/2021 11:10	38.9	37.3	0.0	23.8	121.3	119.9	-0.2	-0.2
GUAD0209	2/16/2021 10:57	36.2	37.8	0.0	26.0	120.8	113.9	-0.1	0.0
GUAD0211	2/8/2021 10:39	48.4	40.2	0.1	11.3	107.8	108.0	-0.9	-0.9
GUAD0213	2/8/2021 10:25	51.3	43.1	0.0	5.6	134.6	134.7	-11.4	-11.4
GUAD0214	2/18/2021 14:14	50.6	37.5	0.0	11.9	124.9	124.9	-0.8	-0.7
GUAD0215	2/15/2021 16:51	49.6	40.0	0.0	10.4	128.7	128.7	-1.2	-1.2
GUAD0216	2/15/2021 16:44	50.8	41.5	0.0	7.7	126.5	126.4	-0.7	-0.7

GUAD0217	2/15/2021 13:00	54.7	43.2	0.0	2.1	119.0	119.1	-0.1	-0.2
GUAD0217	2/24/2021 16:24	52.4	44.3	0.0	3.3	127.0	128.0	-0.5	-0.4
GUAD0218	2/15/2021 13:19	56.0	42.4	0.0	1.6	106.5	111.1	-0.2	-0.2
GUAD0219	2/9/2021 13:49	48.6	39.3	0.0	12.1	115.3	115.7	-1.4	-1.4
GUAD0219	2/24/2021 16:20	52.8	41.9	0.0	5.3	124.0	124.0	-1.5	-1.7
GUAD0219	2/24/2021 18:15	CO was 0 ppm							
GUAD0220	2/15/2021 12:47	52.5	42.5	0.0	5.0	123.0	122.9	-22.7	-17.7
GUAD0221	2/9/2021 12:38	55.1	41.1	0.0	3.8	116.9	118.6	-0.1	-0.7
GUAD0222	2/15/2021 12:20	47.5	34.0	0.0	18.5	107.3	107.3	-0.1	-0.1
GUAD0223	2/15/2021 12:14	45.8	36.3	0.0	17.9	120.3	120.3	-0.1	0.0
GUAD0224	2/15/2021 11:59	30.5	28.4	0.0	41.1	107.6	107.7	-0.4	-0.4
GUAD0225	2/15/2021 11:39	50.9	36.9	0.1	12.1	118.9	118.9	-0.4	-0.4
GUAD0226	2/9/2021 13:58	49.7	41.2	0.0	9.1	118.5	118.6	-27.2	-26.8
GUAD0227	2/15/2021 11:33	55.9	41.0	0.0	3.1	104.1	107.8	-0.1	-0.2
GUAD0228	2/15/2021 11:55	42.3	33.9	0.0	23.8	107.8	107.6	-0.5	-0.4
GUAD0230	2/15/2021 12:25	50.5	37.3	0.0	12.2	111.8	111.7	-0.4	-0.4
GUADH11L	2/16/2021 16:14	60.5	37.7	0.5	1.3	59.4	59.4	-1.1	-1.1
GUADH12L	2/16/2021 16:31	53.1	26.7	3.8	16.4	63.0	62.8	-1.0	-1.0

Wells 114, 123, 134, 135, 149, 151, 154, 156, 158, 161, 162, 181, 182, 185 and 186 are approved to operate at a temperature HOV of 145°F.

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 -March 2, 3, 5, 11, 16, 17, 22 and 23, 2021

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	3/17/2021 12:27	52.1	44.1	0	3.8	138	138	-12.1	-12.1
GDLC0189	3/5/2021 17:49	54.4	45.5	0	0.1	86	122	-0.1	-1
GDLC0190	3/5/2021 17:55	50	41.8	0	8.2	127	127	-2.2	-2.2
GDLC0191	3/5/2021 17:29	31.2	40.1	0	28.7	122	122	-1.9	-1.9
GDLC0192	3/16/2021 12:04	53.2	46.7	0	0.1	124	124	-2.6	-3
GDLC0193	3/5/2021 18:27	39.4	38.6	0	22	129	120	-2.6	-0.7
GDLC0196	3/17/2021 13:10	59.5	39.7	0.7	0.1	83	98	-1.1	-4.4
GDLC0197	3/22/2021 15:29	42.1	35.8	0	22.1	113	113	-0.5	-0.5
GDLC0232	3/17/2021 12:59	55.8	44.1	0	0.1	91	91	-0.4	-0.4
GDLC0233	3/17/2021 13:03	57.6	42.1	0.2	0.1	105	107	-2.3	-2.2
GDLC0233	3/17/2021 13:04	57.6	42.1	0.2	0.1	105	107	-2.3	-2.2
GDLC0234	3/17/2021 12:08	49.8	40.1	0	10.1	118	119	-0.3	-0.1
GDLC0234	3/17/2021 12:08	49.8	40.1	0	10.1	118	119	-0.3	-0.1
GDLC0235	3/16/2021 12:08	52.8	47	0	0.2	121	121	-6.3	-6.7
GDLC0236	3/16/2021 15:10	45.2	40	0	14.8	127	127	-0.5	-0.5
GDLC0237	Offline for filling								
GDLC0238	3/2/2021 15:53	31.3	34.8	0	33.9	105	105	0	0
GDLC0238	3/5/2021 18:36	26.6	31.7	0	41.7	111	111	-0.1	-0.1
GDLC0239	3/11/2021 13:53	33.7	31.5	0	34.8	101	101	-0.2	-0.2
GDLC0240	3/11/2021 13:57	51	41	0	8	118	118	-1.9	-1.8
GDLC0241	3/16/2021 12:23	54.1	45.8	0	0.1	125	125	-3.9	-3.9
GDLC0242	3/22/2021 14:13	53.4	42.3	1.4	2.9	115	115	-39.6	-39.7
GDLC0243	3/16/2021 11:59	48.8	44.5	0.1	6.6	106	106	-0.2	-0.2
GDLC0244	3/17/2021 13:47	40.7	38.6	0	20.7	98	109	-0.2	-0.1
GDLC0244	3/17/2021 13:49	40.7	38.6	0.3	20.4	110	110	-0.2	-0.1
GUAD0062	3/11/2021 13:14	49.2	36.8	0.1	13.9	94	94	-2.2	-2.2
GUAD0065	3/16/2021 14:22	56.9	41.2	0	1.9	98	98	-38.7	-39.1
GUAD0066	3/2/2021 13:13	53.4	37.6	0	9	93	95	-1.9	-3.1
GUAD0081	3/22/2021 16:27	52.7	41.1	0.1	6.1	115	115	-16.3	-17.4

GUAD0082	3/22/2021 16:35	47.5	35.4	0	17.1	101	100	-9.1	-8.6
GUAD0112	3/2/2021 14:49	49.8	36.9	0	13.3	125	126	-0.1	-0.3
GUAD0114	3/22/2021 16:18	51.4	39	0.8	8.8	128	128	-2.1	-2.1
GUAD0122	3/3/2021 14:22	56.3	43.6	0	0.1	132	133	-30.7	-32
GUAD0122	3/9/2021 11:59	44.8	39.6	0.4	15.2	129	130	-34.9	-34.8
GUAD0124	3/5/2021 17:09	CO was 0 ppm							
GUAD0124	3/5/2021 17:26	56.7	42.9	0.2	0.2	119	120	-0.10	-0.10
GUAD0124	3/23/2021 2:10	CO was 0 ppm							
GUAD0124	3/23/2021 14:22	57.2	42.4	0.2	0.2	116	116	-2.0	-2.0
GUAD0129	3/16/2021 12:20	57.9	42	0	0.1	106	106	-34.8	-34.8
GUAD0131	3/22/2021 15:39	57.6	42.3	0	0.1	109	109	-39.8	-40.4
GUAD0134	3/11/2021 13:45	51.9	39	0	9.1	122	122	-0.9	-0.9
GUAD0135	3/11/2021 13:49	49.3	39.8	0	10.9	131	131	-2.7	-2.7
GUAD0138	3/2/2021 16:22	37.9	33.5	0.4	28.2	92	92	-0.4	-0.4
GUAD0142	3/16/2021 14:16	49.1	36.6	0.1	14.2	103	103	-3.9	-4
GUAD0146	3/16/2021 15:40	56.2	43.6	0.1	0.1	129	129	-35.1	-34.9
GUAD0147	3/17/2021 12:48	55.4	44.4	0	0.2	118	119	0	0
GUAD0147	3/17/2021 12:51	55.5	44.4	0	0.1	119	119	0	0.1
GUAD0151	3/5/2021 17:44	59.2	38.1	0	2.7	131	131	-15.3	-15.4
GUAD0151	3/17/2021 12:19	53.2	35.7	0.1	11	130	130	-15.8	-15.8
GUAD0152	3/22/2021 12:09	56.8	43.1	0	0.1	133	133	-23.8	-23.1
GUAD0154	3/5/2021 18:18	57.5	42.4	0	0.1	132	132	-2.1	-2.2
GUAD0156	3/16/2021 15:29	15.4	27.4	0	57.2	118	112	-11.1	-6.4
GUAD0158	3/22/2021 15:06	29.2	35.8	0	35	85	85	-0.4	-0.4
GUAD0161	3/19/2021 11:46	56.7	41.6	0.1	1.6	139	139	-32.2	-32.7
GUAD0162	3/23/2021 15:01	54.6	45.2	0	0.2	139	139	-19.8	-19.7
GUAD0172	3/22/2021 15:49	47.7	37.4	0	14.9	114	109	-2.8	-2.9
GUAD0173	3/22/2021 15:53	52.2	41	0	6.8	107	108	-0.1	-0.1
GUAD0173	3/22/2021 15:55	CO was 0 ppm							
GUAD0176	3/17/2021 12:56	56.1	43.8	0	0.1	100	100	-0.8	-0.8
GUAD0177	3/23/2021 15:11	54.9	42.3	0	2.8	127	127	-25.7	-24.3
GUAD0178	3/22/2021 11:23	55.4	44.3	0.1	0.2	72	72	-33.3	-33.2
GUAD0179	3/17/2021 14:03	43.2	34.8	0	22	95	95	-0.1	-0.1
GUAD0180	3/16/2021 15:20	55.4	43.7	0	0.9	128	129	-36.8	-36.8
GUAD0181	3/16/2021 15:16	54.8	45.1	0	0.1	139	139	-37.6	-37.6
GUAD0183	3/22/2021 14:23	55.3	44.6	0	0.1	128	128	-1.4	-1.8
GUAD0184	3/16/2021 12:16	49.2	45.2	0	5.6	128	128	-17.3	-20.5
GUAD0185	3/3/2021 14:44	50.5	42.6	0.8	6.1	137	137	-34.3	-34.4
GUAD0186	3/5/2021 18:23	55.6	44.3	0	0.1	128	128	-2.7	-1.9
GUAD0187	3/17/2021 11:54	56.9	42.6	0.3	0.2	123	123	-34.2	-34.3
GUAD0198	3/17/2021 14:06	57.8	40.1	0.1	2	123	120	-1.1	-1.5
GUAD0199	3/22/2021 15:14	53.5	40	0	6.5	131	131	-19	-20.7
GUAD0199	3/23/2021 15:15	CO was 0 ppm							
GUAD0199	3/23/2021 15:23	53.1	40	0	6.9	131	131	-22.5	-23
GUAD0200	3/22/2021 12:03	56.5	43.1	0.2	0.2	125	125	-28.1	-26.3
GUAD0201	3/17/2021 12:15	56	43.5	0.4	0.1	114	114	-18.4	-18.4

GUAD0202	3/22/2021 14:56	53.9	38.4	0	7.7	124	124	-1.1	-1.4
GUAD0203	3/17/2021 14:17	58.1	39.1	0.3	2.5	123	123	-0.6	-0.7
GUAD0203	3/22/2021 12:28	40.7	33	4.9	21.4	90	90	-26.3	-25.5
GUAD0204	3/17/2021 12:29	55.1	44.8	0	0.1	130	130	-20.6	-20.7
GUAD0205	3/5/2021 18:00	44.9	40.4	0	14.7	132	132	-0.1	-0.1
GUAD0207	3/2/2021 15:35	49.3	42.2	0	8.5	125	129	-0.1	-0.2
GUAD0207	3/3/2021 14:34	35.8	36.1	0	28.1	133	133	-2.2	-2.2
GUAD0207	3/3/2021 14:40	35.8	36.1	0	28.1	133	129	-2.2	-0.2
GUAD0208	3/3/2021 14:29	48	44.3	0	7.7	121	121	-0.1	-0.2
GUAD0209	3/3/2021 14:15	51.6	48.1	0.1	0.2	78	103	-0.1	-0.1
GUAD0209	3/3/2021 14:18	49.9	46.3	0	3.8	122	123	-0.1	-0.1
GUAD0211	3/16/2021 15:23	48.2	39.9	0	11.9	109	109	-0.7	-0.9
GUAD0213	3/22/2021 14:43	54.1	45.7	0.1	0.1	136	136	-12.5	-15.3
GUAD0214	3/19/2021 11:00	54.4	39	0.1	6.5	128	128	-0.8	-0.8
GUAD0215	3/16/2021 15:05	52	43	0	5	132	132	-0.8	-0.9
GUAD0216	3/5/2021 18:04	52.5	44	0	3.5	130	130	-0.2	-0.2
GUAD0217	3/5/2021 17:34	52	43.8	0.1	4.1	127	128	-0.1	-0.2
GUAD0218	3/16/2021 12:36	48.5	42.7	0	8.8	125	125	-0.5	-0.5
GUAD0219	3/16/2021 12:32	52.5	41.6	0	5.9	123	123	-2.2	-2.1
GUAD0219	3/23/2021 13:43	CO was 0 ppm							
GUAD0219	3/23/2021 13:48	51.3	41	0.2	7.5	116	116	-2	-2
GUAD0219	3/23/2021 13:50	CO was 0 ppm							
GUAD0220	3/17/2021 11:49	55.6	44	0.2	0.2	124	124	-8.1	-8.1
GUAD0220	3/17/2021 11:50	55.6	44	0.2	0.2	124	124	-8.1	-7.5
GUAD0221	3/22/2021 14:33	43.6	38.1	0	18.3	118	118	-1.2	-1.4
GUAD0222	3/11/2021 13:20	25.2	27.5	0	47.3	107	107	-0.4	-0.3
GUAD0223	3/11/2021 13:27	40.2	35.4	0	24.4	118	120	-0.3	-0.2
GUAD0224	3/16/2021 14:37	28.5	28.5	0	43	111	111	-0.2	-0.2
GUAD0225	3/22/2021 10:40	51.1	37.6	0.2	11.1	122	122	-0.4	-0.5
GUAD0226	3/16/2021 14:46	50.4	41.3	0	8.3	120	120	-25.9	-25.6
GUAD0227	3/16/2021 14:27	50.9	39.5	0	9.6	118	118	-0.3	-0.6
GUAD0228	3/16/2021 14:32	38.2	34.7	0	27.1	109	109	-0.3	-0.3
GUAD0230	3/2/2021 13:01	51.4	38.2	0	10.4	114	114	-0.1	-0.1
GUAD0230	3/2/2021 13:02	51.4	38.2	0	10.4	114	114	-0.1	-0.3
GUADH11L	3/22/2021 16:21	58.4	37.5	1.1	3	67	67	-1.6	-2.4
GUADH12L	3/22/2021 16:45	50.9	27.8	4.4	16.9	75	75	-0.8	-0.8

Wells 114, 123, 134, 135, 151, 154, 156, 158, 161, 162, 181, 182, 185 and 186 are approved to operate at a temperature HOV of 145°F.

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 LOG

Guadalupe Recycling & Disposal Facility, San Jose, CA
Wellfield Deviation Report
October 1, 2020 - March 31, 2021

REPORT PREPARED BY: Rajan Phadnis
UPDATED DATE: 4/1/2021
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						
GDLC0193	11/28/2020 12:23	56.2	43.8	0.0	0.0	113.6	122	0.02	-0.56	Inc. Flow/Vac.	<1
Well 193 had pressure exceedance during initial monitoring in November 2020. Adjustment was made and exceedance was corrected on the same day.											
GUAD0179	11/28/2020 15:27	55.2	38.1	0.0	6.7	110	111	0.02	-0.02	NSPS/EG CAI;Inc. Flow/Vac.	<1
Well 179 had pressure exceedance during initial monitoring in November 2020. Adjustment was made and exceedance was corrected on the same day.											
GUAD0184	11/12/2020 15:43	54.9	44.9	0.1	0.1	127	127	2.3	2.3	NSPS/EG CAI;Fully Open	
GUAD0184	11/25/2020 12:31	47.7	42.9	0.1	9.3	125	125	-25.7	-25.6	Surging;No Adj. Made	13
Well 184 had pressure exceedance during initial monitoring in November 2020. Execeedance was corrected during the same month.											
GUAD0202	11/28/2020 15:46	59.8	40.2	0.0	0	106	115	0.12	-0.1	Inc. Flow/Vac.	<1
Well 202 had pressure exceedance during initial monitoring in November 2020. Adjustment was made and exceedance was corrected on the same day.											
GUAD0224	11/12/2020 14:08	33.6	32.3	0.0	34.1	110	110	0.0	-0.1	Barely Open;Dec. Flow/Vac.	<1
Well 224 had pressure exceedance during initial monitoring in November 2020. Adjustment was made and exceedance was corrected on the same day.											
GUAD0209	11/28/2020 13:10	45.6	42.9	0.0	11.5	122.6	122.6	0.1	-0.01	NSPS/EG CAI;Inc. Flow/Vac.	<1
Well 209 had pressure exceedance during initial monitoring in November 2020. Adjustment was made and exceedance was corrected on the same day.											
GUADH12L	11/28/2020 10:53	0.4	4.5	20.6	74.5	64.6	64.6	-1.82	-1.8	NSPS/EG CAI;Fully Open;Inc. Flow/Vac.	
GUADH12L	12/11/2020 14:02	31.3	19.8	8.5	40.4	68.2	67.2	-1.7	-1.6	NSPS/EG CAI;Barely Open;Dec. Flow/Vac.	13
H12 L had oxygen exceedance during initial monitoring in November 2020. Adjustments were made and exceedance was corrected during December 2020 monitoring.											
GDLC0192	11/25/2020 13:05	57.8	41.9	0.2	0.1	69.4	69.4	0.1	0.2	NSPS/EG CAI;Inc. Flow/Vac.	
GDLC0192	12/10/2020 15:32	56.8	43.2	0.0	0.0	72.8	72.8	0.1	0.1	NSPS/EG CAI;Pinched	
GDLC0192	12/11/2020 12:04	55.9	44	0.2	-0.1	125	125	-11	-9.1	NSPS/EG CAI;Fully Open	16
Well 192 had pressure exceedance during initial monitoring in November and December 2020. Blocked header was cleared and exceedance was corrected during remonitoring in December 2020.											
GUAD0183	11/25/2020 12:36	56.1	43.9	0.0	0.0	102	102	11.0	11.1	NSPS/EG CAI;Fully Open	
GUAD0183	11/25/2020 12:37	56.4	43	0.5	0.1	102	102	10.6	10.8	NSPS/EG CAI;Fully Open;Pinched	
GUAD0183	12/10/2020 15:37	56.2	43.8	0.0	0.0	71.2	71.2	15.0	15.0	NSPS/EG CAI;Pinched	
GUAD0183	12/11/2020 12:15	56.0	43.8	0.2	0.0	128	128	-10.6	-10.6	NSPS/EG CAI;Fully Open	16
Well 183 had pressure exceedance during initial monitoring in December 2020. Water blockage was cleared 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						
GUAD0209	12/14/2020 14:38	37.4	39.3	0	23.3	133	132	-0.5	-0.4	Barely Open;Dec. Flow/Vac.	
GUAD0209	12/16/2020 11:22	CO was 5 ppm									
GUAD0209	12/16/2020 11:24	39.9	40.6	0.1	19.4	129.8	129.8	-0.04	-0.02	NSPS/EG CAI;Barely Open;Surging	2
GUAD0209	12/18/2020 10:30	CO was 5 ppm									
GUAD0209	12/18/2020 13:25	CO was 5 ppm									
Well 209 had temperature exceedance during initial monitoring in December 2020. CO was below 100 ppm. Exceedance was corrected during the same week.											
GDLC0238	3/2/2021 15:53	31.3	34.8	0	33.9	105	105	0.0	0.0	Inc. Flow/Vac.;Surging;Adjusted for Odor/SEM	
GDLC0238	3/5/2021 18:36	26.6	31.7	0	41.7	111	111	-0.1	-0.1	Dec. Flow/Vac.;NSPS/EG CAI	3
Well 238 had pressure exceedance during initial monitoring in March 2021. Adjustments were made and exceedance was corrected.											
GUAD0147	3/17/2021 12:48	55.4	44.4	0	0.2	118	119	0.0	0.0	NSPS/EG CAI;Fully Open	
GUAD0147	3/17/2021 12:51	55.5	44.4	0	0.1	119	119	0.0	0.1	NSPS/EG CAI;Fully Open;Pinched	>13
Well 147 had pressure exceedance during initial monitoring in March 2021. Corrective actions have been initiated and plans to repair and clear exceedance at well 147 are in progress.											
GUAD0199	3/22/2021 15:14	53.5	40	0	6.5	131	131	-19.0	-20.7	Inc. Flow/Vac.	
GUAD0199	3/23/2021 15:15	CO was 0 ppm									
GUAD0199	3/23/2021 15:23	53.1	40	0	6.9	131	131	-22.5	-23	NSPS/EG CAI;Surging	>9
Well 199 had temperature exceedance during initial monitoring in December 2020. CO readings was below 100 ppm.											

%= 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

October 1, 2020 - March 31, 2021 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
October 2020	744.00	90.37	653.63	724	49.9	28,261,196	14,088,220	14,271
November 2020[1]	721.00	721.00	0.00	0	49.9	0	0	0
December 2020	744.00	744.00	0.00	0	49.9	0	0	0
January 2021	744.00	744.00	0.00	0	49.9	0	0	0
February 2021	672.00	672.00	0.00	0	49.9	0	0	0
March 2021[2]	743.00	743.00	0.00	0	49.9	0	0	0
October 1, 2020 - March 31, 2021 Totals/Avg:	**4,368.00**	**3,714.37**	**653.63**	**724**	**49.9**	**28,261,196**	**14,088,220**	**14,271**
2020/2021 TOTALS/ AVERAGE :	**8,760.00**	**7,551.37**	**1,208.63**	**1,251**	**49.0**	**55,538,146**	**27,596,771**	**27,956**

Notes:

[1] 721 hours available in November 2020 due to Daylight Saving Time

[2] 743 hours available in March 2021 due to Daylight Saving Time.

*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: **October-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
10/1/2020	24.0	49.9	618	889,842	443,586	1,013.0	449
10/2/2020	24.0	49.9	620	893,197	445,259	1,013.0	451
10/3/2020	24.0	49.9	636	915,423	456,339	1,013.0	462
10/4/2020	24.0	49.9	612	880,836	439,097	1,013.0	445
10/5/2020	24.0	49.9	606	873,111	435,247	1,013.0	441
10/6/2020	24.0	49.9	614	884,570	440,958	1,013.0	447
10/7/2020	24.0	49.9	595	856,999	427,214	1,013.0	433
10/8/2020	20.7	49.9	551	683,311	340,631	1,013.0	345
10/9/2020	9.0	49.9	698	375,396	187,135	1,013.0	190
10/10/2020	24.0	49.9	631	908,185	452,731	1,013.0	459
10/11/2020	24.0	49.9	598	860,442	428,931	1,013.0	435
10/12/2020	24.0	49.9	598	861,179	429,298	1,013.0	435
10/13/2020	24.0	49.9	686	987,146	492,093	1,013.0	498
10/14/2020	24.0	49.9	761	1,095,786	546,250	1,013.0	553
10/15/2020	24.0	49.9	692	996,564	496,788	1,013.0	503
10/16/2020	24.0	49.9	616	887,542	442,440	1,013.0	448
10/17/2020	24.0	49.9	602	866,542	431,971	1,013.0	438
10/18/2020	24.0	49.9	596	858,395	427,910	1,013.0	433
10/19/2020	24.0	49.9	642	923,875	460,552	1,013.0	467
10/20/2020	24.0	49.9	709	1,021,355	509,146	1,013.0	516
10/21/2020	24.0	49.9	593	854,066	425,752	1,013.0	431
10/22/2020	20.5	49.9	634	781,499	389,577	1,013.0	395
10/23/2020	24.0	49.9	743	1,069,248	533,021	1,013.0	540
10/24/2020	24.0	49.9	602	866,912	432,156	1,013.0	438
10/25/2020	24.0	49.9	602	866,912	432,156	1,013.0	438
10/26/2020	2.5	49.9	546	83,042	41,397	1,013.0	42
10/27/2020	15.0	49.9	1,555	1,399,433	697,618	1,013.0	707
10/28/2020	24.0	49.9	1,622	2,335,909	1,164,452	1,013.0	1,180
10/29/2020	24.0	49.9	1,436	2,067,682	1,030,741	1,013.0	1,044
10/30/2020	9.9	49.9	699	416,797	207,773	1,013.0	210
10/31/2020	0.0	49.9	0	0	0	1,013.0	0
Totals/ Average:	**653.6**	**49.9**	**724**	**28,261,196**	**14,088,220**	**1013.0**	**14,271**
Notes:						**Maximum:**	**1,180**

*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: **November-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
11/1/2020	0.0	49.9	0	0	0	1,013.0	0
11/2/2020	0.0	49.9	0	0	0	1,013.0	0
11/3/2020	0.0	49.9	0	0	0	1,013.0	0
11/4/2020	0.0	49.9	0	0	0	1,013.0	0
11/5/2020	0.0	49.9	0	0	0	1,013.0	0
11/6/2020	0.0	49.9	0	0	0	1,013.0	0
11/7/2020	0.0	49.9	0	0	0	1,013.0	0
11/8/2020	0.0	49.9	0	0	0	1,013.0	0
11/9/2020	0.0	49.9	0	0	0	1,013.0	0
11/10/2020	0.0	49.9	0	0	0	1,013.0	0
11/11/2020	0.0	49.9	0	0	0	1,013.0	0
11/12/2020	0.0	49.9	0	0	0	1,013.0	0
11/13/2020	0.0	49.9	0	0	0	1,013.0	0
11/14/2020	0.0	49.9	0	0	0	1,013.0	0
11/15/2020	0.0	49.9	0	0	0	1,013.0	0
11/16/2020	0.0	49.9	0	0	0	1,013.0	0
11/17/2020	0.0	49.9	0	0	0	1,013.0	0
11/18/2020	0.0	49.9	0	0	0	1,013.0	0
11/19/2020	0.0	49.9	0	0	0	1,013.0	0
11/20/2020	0.0	49.9	0	0	0	1,013.0	0
11/21/2020	0.0	49.9	0	0	0	1,013.0	0
11/22/2020	0.0	49.9	0	0	0	1,013.0	0
11/23/2020	0.0	49.9	0	0	0	1,013.0	0
11/24/2020	0.0	49.9	0	0	0	1,013.0	0
11/25/2020	0.0	49.9	0	0	0	1,013.0	0
11/26/2020	0.0	49.9	0	0	0	1,013.0	0
11/27/2020	0.0	49.9	0	0	0	1,013.0	0
11/28/2020	0.0	49.9	0	0	0	1,013.0	0
11/29/2020	0.0	49.9	0	0	0	1,013.0	0
11/30/2020	0.0	49.9	0	0	0	1,013.0	0
Totals/ Average:	**0.0**	**49.9**	**0**	**0**	**0**	**1013.0**	**0**
Notes:						**Maximum:**	**0**

*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: **December-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
12/1/2020	0.0	49.9	0	0	0	1,013.0	0
12/2/2020	0.0	49.9	0	0	0	1,013.0	0
12/3/2020	0.0	49.9	0	0	0	1,013.0	0
12/4/2020	0.0	49.9	0	0	0	1,013.0	0
12/5/2020	0.0	49.9	0	0	0	1,013.0	0
12/6/2020	0.0	49.9	0	0	0	1,013.0	0
12/7/2020	0.0	49.9	0	0	0	1,013.0	0
12/8/2020	0.0	49.9	0	0	0	1,013.0	0
12/9/2020	0.0	49.9	0	0	0	1,013.0	0
12/10/2020	0.0	49.9	0	0	0	1,013.0	0
12/11/2020	0.0	49.9	0	0	0	1,013.0	0
12/12/2020	0.0	49.9	0	0	0	1,013.0	0
12/13/2020	0.0	49.9	0	0	0	1,013.0	0
12/14/2020	0.0	49.9	0	0	0	1,013.0	0
12/15/2020	0.0	49.9	0	0	0	1,013.0	0
12/16/2020	0.0	49.9	0	0	0	1,013.0	0
12/17/2020	0.0	49.9	0	0	0	1,013.0	0
12/18/2020	0.0	49.9	0	0	0	1,013.0	0
12/19/2020	0.0	49.9	0	0	0	1,013.0	0
12/20/2020	0.0	49.9	0	0	0	1,013.0	0
12/21/2020	0.0	49.9	0	0	0	1,013.0	0
12/22/2020	0.0	49.9	0	0	0	1,013.0	0
12/23/2020	0.0	49.9	0	0	0	1,013.0	0
12/24/2020	0.0	49.9	0	0	0	1,013.0	0
12/25/2020	0.0	49.9	0	0	0	1,013.0	0
12/26/2020	0.0	49.9	0	0	0	1,013.0	0
12/27/2020	0.0	49.9	0	0	0	1,013.0	0
12/28/2020	0.0	49.9	0	0	0	1,013.0	0
12/29/2020	0.0	49.9	0	0	0	1,013.0	0
12/30/2020	0.0	49.9	0	0	0	1,013.0	0
12/31/2020	0.0	49.9	0	0	0	1,013.0	0
Totals/ Average:	**0.0**	**49.9**	**0**	**0**	**0**	**1013.0**	**0**
Notes:						**Maximum:**	**0**

*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: **January-21**

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
1/1/2021	0.0	49.9	0	0	0	1,013.0	0
1/2/2021	0.0	49.9	0	0	0	1,013.0	0
1/3/2021	0.0	49.9	0	0	0	1,013.0	0
1/4/2021	0.0	49.9	0	0	0	1,013.0	0
1/5/2021	0.0	49.9	0	0	0	1,013.0	0
1/6/2021	0.0	49.9	0	0	0	1,013.0	0
1/7/2021	0.0	49.9	0	0	0	1,013.0	0
1/8/2021	0.0	49.9	0	0	0	1,013.0	0
1/9/2021	0.0	49.9	0	0	0	1,013.0	0
1/10/2021	0.0	49.9	0	0	0	1,013.0	0
1/11/2021	0.0	49.9	0	0	0	1,013.0	0
1/12/2021	0.0	49.9	0	0	0	1,013.0	0
1/13/2021	0.0	49.9	0	0	0	1,013.0	0
1/14/2021	0.0	49.9	0	0	0	1,013.0	0
1/15/2021	0.0	49.9	0	0	0	1,013.0	0
1/16/2021	0.0	49.9	0	0	0	1,013.0	0
1/17/2021	0.0	49.9	0	0	0	1,013.0	0
1/18/2021	0.0	49.9	0	0	0	1,013.0	0
1/19/2021	0.0	49.9	0	0	0	1,013.0	0
1/20/2021	0.0	49.9	0	0	0	1,013.0	0
1/21/2021	0.0	49.9	0	0	0	1,013.0	0
1/22/2021	0.0	49.9	0	0	0	1,013.0	0
1/23/2021	0.0	49.9	0	0	0	1,013.0	0
1/24/2021	0.0	49.9	0	0	0	1,013.0	0
1/25/2021	0.0	49.9	0	0	0	1,013.0	0
1/26/2021	0.0	49.9	0	0	0	1,013.0	0
1/27/2021	0.0	49.9	0	0	0	1,013.0	0
1/28/2021	0.0	49.9	0	0	0	1,013.0	0
1/29/2021	0.0	49.9	0	0	0	1,013.0	0
1/30/2021	0.0	49.9	0	0	0	1,013.0	0
1/31/2021	0.0	49.9	0	0	0	1,013.0	0
Totals/ Average:	**0.0**	**49.9**	**0**	**0**	**0**	**1013.0**	**0**
Notes:						**Maximum:**	**0**

*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: **February-21**

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
2/1/2021	0.0	49.9	0	0	0	1,013.0	0
2/2/2021	0.0	49.9	0	0	0	1,013.0	0
2/3/2021	0.0	49.9	0	0	0	1,013.0	0
2/4/2021	0.0	49.9	0	0	0	1,013.0	0
2/5/2021	0.0	49.9	0	0	0	1,013.0	0
2/6/2021	0.0	49.9	0	0	0	1,013.0	0
2/7/2021	0.0	49.9	0	0	0	1,013.0	0
2/8/2021	0.0	49.9	0	0	0	1,013.0	0
2/9/2021	0.0	49.9	0	0	0	1,013.0	0
2/10/2021	0.0	49.9	0	0	0	1,013.0	0
2/11/2021	0.0	49.9	0	0	0	1,013.0	0
2/12/2021	0.0	49.9	0	0	0	1,013.0	0
2/13/2021	0.0	49.9	0	0	0	1,013.0	0
2/14/2021	0.0	49.9	0	0	0	1,013.0	0
2/15/2021	0.0	49.9	0	0	0	1,013.0	0
2/16/2021	0.0	49.9	0	0	0	1,013.0	0
2/17/2021	0.0	49.9	0	0	0	1,013.0	0
2/18/2021	0.0	49.9	0	0	0	1,013.0	0
2/19/2021	0.0	49.9	0	0	0	1,013.0	0
2/20/2021	0.0	49.9	0	0	0	1,013.0	0
2/21/2021	0.0	49.9	0	0	0	1,013.0	0
2/22/2021	0.0	49.9	0	0	0	1,013.0	0
2/23/2021	0.0	49.9	0	0	0	1,013.0	0
2/24/2021	0.0	49.9	0	0	0	1,013.0	0
2/25/2021	0.0	49.9	0	0	0	1,013.0	0
2/26/2021	0.0	49.9	0	0	0	1,013.0	0
2/27/2021	0.0	49.9	0	0	0	1,013.0	0
2/28/2021	0.0	49.9	0	0	0	1,013.0	0
Totals/ Average:	**0.0**	**49.9**	**0**	**0**	**0**	**1013.0**	**0**
Notes:						**Maximum:**	**0**

*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: **March-21**

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
3/1/2021	0.0	49.9	0	0	0	1,013.0	0
3/2/2021	0.0	49.9	0	0	0	1,013.0	0
3/3/2021	0.0	49.9	0	0	0	1,013.0	0
3/4/2021	0.0	49.9	0	0	0	1,013.0	0
3/5/2021	0.0	49.9	0	0	0	1,013.0	0
3/6/2021	0.0	49.9	0	0	0	1,013.0	0
3/7/2021	0.0	49.9	0	0	0	1,013.0	0
3/8/2021	0.0	49.9	0	0	0	1,013.0	0
3/9/2021	0.0	49.9	0	0	0	1,013.0	0
3/10/2021	0.0	49.9	0	0	0	1,013.0	0
3/11/2021	0.0	49.9	0	0	0	1,013.0	0
3/12/2021	0.0	49.9	0	0	0	1,013.0	0
3/13/2021	0.0	49.9	0	0	0	1,013.0	0
3/14/2021	0.0	49.9	0	0	0	1,013.0	0
3/15/2021	0.0	49.9	0	0	0	1,013.0	0
3/16/2021	0.0	49.9	0	0	0	1,013.0	0
3/17/2021	0.0	49.9	0	0	0	1,013.0	0
3/18/2021	0.0	49.9	0	0	0	1,013.0	0
3/19/2021	0.0	49.9	0	0	0	1,013.0	0
3/20/2021	0.0	49.9	0	0	0	1,013.0	0
3/21/2021	0.0	49.9	0	0	0	1,013.0	0
3/22/2021	0.0	49.9	0	0	0	1,013.0	0
3/23/2021	0.0	49.9	0	0	0	1,013.0	0
3/24/2021	0.0	49.9	0	0	0	1,013.0	0
3/25/2021	0.0	49.9	0	0	0	1,013.0	0
3/26/2021	0.0	49.9	0	0	0	1,013.0	0
3/27/2021	0.0	49.9	0	0	0	1,013.0	0
3/28/2021	0.0	49.9	0	0	0	1,013.0	0
3/29/2021	0.0	49.9	0	0	0	1,013.0	0
3/30/2021	0.0	49.9	0	0	0	1,013.0	0
3/31/2021	0.0	49.9	0	0	0	1,013.0	0
Totals/ Average:	**0.0**	**49.9**	**0**	**0**	**0**	**1013.0**	**0**
Notes:						**Maximum:**	**0**

*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

October 1, 2020 - March 31, 2021 SAR MONTHLY LFG Input to Flare (A-14/A-17)
Guadalupe Recycling & Disposal Facility, San Jose, CA

A-17 New Enclosed Flare (Previously designated as A-14)

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
October 2020	744.00	58.30	685.70	1,413	43.9	58,174,805	25,529,141	25,861
November 2020[1]	721.00	38.50	682.50	1,714	43.9	69,959,360	30,700,616	31,100
December 2020	744.00	0.17	743.83	1,806	43.9	80,585,896	35,363,912	35,824
January 2021	744.00	4.63	739.37	1,770	43.9	78,550,916	34,470,891	34,919
February 2021	672.00	1.77	670.23	1,770	43.9	71,174,349	31,233,795	31,640
March 2021[2]	743.00	2.70	740.30	1,928	43.9	85,649,982	37,586,210	38,075
October 1, 2020 - March 31, 2021 Totals/Avg:	**4,368.00**	**106.07**	**4,261.93**	**1,734**	**43.9**	**444,095,308**	**194,884,564**	**197,418**
2020/2021 TOTALS/ AVERAGE :	**8,760.00**	**257.01**	**8,502.99**	**2,006**	**45.0**	**981,310,697**	**435,593,529**	**437,545**

Notes:

NA= Initial startup of A-14 flare was on November 17, 2016. Stack was replaced with standard 120 MMBTU/HR stack in October 2020. New designation is flare A-17.

[1] 721 hours available in November 2020 due to Daylight Saving Time

[2] 743 hours available in March 2021 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/A-17**

MONTH: **October-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
10/1/2020	24.0	43.9	1,431	2,061,091	904,479	1,013.0	916.2
10/2/2020	24.0	43.9	1,425	2,052,447	900,686	1,013.0	912.4
10/3/2020	24.0	43.9	1,417	2,041,087	895,700	1,013.0	907.3
10/4/2020	24.0	43.9	1,432	2,062,791	905,225	1,013.0	917.0
10/5/2020	24.0	43.9	1,428	2,056,083	902,281	1,013.0	914.0
10/6/2020	24.0	43.9	1,414	2,036,223	893,566	1,013.0	905.2
10/7/2020	24.0	43.9	1,419	2,043,657	896,828	1,013.0	908.5
10/8/2020	24.0	43.9	1,447	2,084,162	914,603	1,013.0	926.5
10/9/2020	24.0	43.9	1,403	2,019,652	886,294	1,013.0	897.8
10/10/2020	24.0	43.9	1,405	2,023,196	887,849	1,013.0	899.4
10/11/2020	24.0	43.9	1,421	2,045,612	897,686	1,013.0	909.4
10/12/2020	24.0	43.9	1,425	2,051,547	900,291	1,013.0	912.0
10/13/2020	23.9	43.9	1,367	1,957,705	859,109	1,013.0	870.3
10/14/2020	24.0	43.9	1,310	1,885,958	827,624	1,013.0	838.4
10/15/2020	23.8	43.9	1,369	1,954,484	857,696	1,013.0	868.8
10/16/2020	24.0	43.9	1,419	2,043,716	896,854	1,013.0	908.5
10/17/2020	24.0	43.9	1,414	2,036,651	893,754	1,013.0	905.4
10/18/2020	24.0	43.9	1,413	2,034,881	892,977	1,013.0	904.6
10/19/2020	23.9	43.9	1,385	1,986,713	871,839	1,013.0	883.2
10/20/2020	24.0	43.9	1,347	1,939,497	851,119	1,013.0	862.2
10/21/2020	24.0	43.9	1,413	2,034,112	892,640	1,013.0	904.2
10/22/2020	23.9	43.9	1,379	1,974,331	866,406	1,013.0	877.7
10/23/2020	24.0	43.9	1,296	1,866,142	818,928	1,013.0	829.6
10/24/2020	24.0	43.9	1,403	2,020,292	886,575	1,013.0	898.1
10/25/2020	24.0	43.9	1,404	2,022,021	887,334	1,013.0	898.9
10/26/2020	24.0	43.9	1,401	2,017,333	885,276	1,013.0	896.8
10/27/2020	8.4	43.9	1,398	704,515	309,166	1,013.0	313.2
10/28/2020	0.0	43.9	0	0	0	1,013.0	0.0
10/29/2020	6.2	43.9	1,400	520,726	228,513	1,013.0	231.5
10/30/2020	23.8	43.9	1,531	2,183,371	958,140	1,013.0	970.6
10/31/2020	23.9	43.9	1,684	2,414,809	1,059,703	1,013.0	1,073.5
Totals/ Average:	**685.70**	**43.9**	**1,413**	**58,174,805**	**25,529,141**	**1013.0**	**25,861**
Notes:						**Maximum:**	**1,073**

*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-17**

MONTH: **November-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
11/1/2020	25.0	43.9	1,710	2,565,148	1,125,677	1,013.0	1,140.3
11/2/2020	23.9	43.9	1,709	2,446,748	1,073,719	1,013.0	1,087.7
11/3/2020	21.4	43.9	1,732	2,220,978	974,643	1,013.0	987.3
11/4/2020	19.3	43.9	1,811	2,097,265	920,353	1,013.0	932.3
11/5/2020	20.6	43.9	1,824	2,258,459	991,091	1,013.0	1,004.0
11/6/2020	19.8	43.9	1,732	2,054,364	901,527	1,013.0	913.2
11/7/2020	16.9	43.9	1,885	1,915,531	840,602	1,013.0	851.5
11/8/2020	23.5	43.9	1,678	2,362,909	1,036,927	1,013.0	1,050.4
11/9/2020	16.5	43.9	1,706	1,692,670	742,803	1,013.0	752.5
11/10/2020	15.6	43.9	1,897	1,779,380	780,854	1,013.0	791.0
11/11/2020	24.0	43.9	1,723	2,480,805	1,088,664	1,013.0	1,102.8
11/12/2020	24.0	43.9	1,720	2,477,232	1,087,096	1,013.0	1,101.2
11/13/2020	24.0	43.9	1,733	2,495,510	1,095,117	1,013.0	1,109.4
11/14/2020	24.0	43.9	1,712	2,465,946	1,082,143	1,013.0	1,096.2
11/15/2020	24.0	43.9	1,727	2,486,960	1,091,365	1,013.0	1,105.6
11/16/2020	24.0	43.9	1,752	2,522,324	1,106,884	1,013.0	1,121.3
11/17/2020	24.0	43.9	1,698	2,445,272	1,073,071	1,013.0	1,087.0
11/18/2020	24.0	43.9	1,677	2,415,391	1,059,958	1,013.0	1,073.7
11/19/2020	24.0	43.9	1,681	2,421,311	1,062,556	1,013.0	1,076.4
11/20/2020	24.0	43.9	1,669	2,403,424	1,054,707	1,013.0	1,068.4
11/21/2020	24.0	43.9	1,667	2,400,677	1,053,501	1,013.0	1,067.2
11/22/2020	24.0	43.9	1,666	2,398,697	1,052,632	1,013.0	1,066.3
11/23/2020	24.0	43.9	1,669	2,403,197	1,054,607	1,013.0	1,068.3
11/24/2020	24.0	43.9	1,673	2,409,705	1,057,463	1,013.0	1,071.2
11/25/2020	24.0	43.9	1,668	2,401,493	1,053,859	1,013.0	1,067.6
11/26/2020	24.0	43.9	1,665	2,397,159	1,051,957	1,013.0	1,065.6
11/27/2020	24.0	43.9	1,657	2,386,161	1,047,131	1,013.0	1,060.7
11/28/2020	24.0	43.9	1,649	2,374,771	1,042,133	1,013.0	1,055.7
11/29/2020	24.0	43.9	1,655	2,382,699	1,045,612	1,013.0	1,059.2
11/30/2020	24.0	43.9	1,665	2,397,174	1,051,964	1,013.0	1,065.6
Totals/ Average:	**682.50**	**43.9**	**1,714**	**69,959,360**	**30,700,616**	**1013.0**	**31,100**
						Maximum:	**1,140**

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-17**

MONTH: **December-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
12/1/2020	24.0	43.9	1,685	2,426,599	1,064,877	1,013.0	1,078.7
12/2/2020	24.0	43.9	1,672	2,407,143	1,056,339	1,013.0	1,070.1
12/3/2020	24.0	43.9	1,654	2,381,068	1,044,896	1,013.0	1,058.5
12/4/2020	24.0	43.9	1,669	2,403,694	1,054,825	1,013.0	1,068.5
12/5/2020	24.0	43.9	1,653	2,380,318	1,044,567	1,013.0	1,058.1
12/6/2020	24.0	43.9	1,649	2,374,297	1,041,925	1,013.0	1,055.5
12/7/2020	24.0	43.9	1,659	2,389,247	1,048,485	1,013.0	1,062.1
12/8/2020	24.0	43.9	1,681	2,421,251	1,062,530	1,013.0	1,076.3
12/9/2020	24.0	43.9	1,662	2,393,150	1,050,198	1,013.0	1,063.9
12/10/2020	24.0	43.9	1,652	2,378,833	1,043,915	1,013.0	1,057.5
12/11/2020	24.0	43.9	1,870	2,692,654	1,181,631	1,013.0	1,197.0
12/12/2020	24.0	43.9	1,992	2,868,180	1,258,658	1,013.0	1,275.0
12/13/2020	24.0	43.9	1,965	2,830,040	1,241,921	1,013.0	1,258.1
12/14/2020	24.0	43.9	1,935	2,786,117	1,222,646	1,013.0	1,238.5
12/15/2020	24.0	43.9	1,913	2,754,448	1,208,748	1,013.0	1,224.5
12/16/2020	24.0	43.9	1,917	2,761,048	1,211,644	1,013.0	1,227.4
12/17/2020	24.0	43.9	1,871	2,694,267	1,182,339	1,013.0	1,197.7
12/18/2020	24.0	43.9	1,859	2,677,595	1,175,022	1,013.0	1,190.3
12/19/2020	24.0	43.9	1,866	2,686,726	1,179,029	1,013.0	1,194.4
12/20/2020	24.0	43.9	1,876	2,701,843	1,185,663	1,013.0	1,201.1
12/21/2020	24.0	43.9	1,875	2,700,069	1,184,885	1,013.0	1,200.3
12/22/2020	24.0	43.9	1,856	2,672,200	1,172,655	1,013.0	1,187.9
12/23/2020	24.0	43.9	1,847	2,659,013	1,166,868	1,013.0	1,182.0
12/24/2020	24.0	43.9	1,858	2,675,943	1,174,297	1,013.0	1,189.6
12/25/2020	24.0	43.9	1,858	2,676,205	1,174,412	1,013.0	1,189.7
12/26/2020	24.0	43.9	1,834	2,640,737	1,158,848	1,013.0	1,173.9
12/27/2020	24.0	43.9	1,860	2,678,577	1,175,453	1,013.0	1,190.7
12/28/2020	24.0	43.9	1,819	2,619,111	1,149,358	1,013.0	1,164.3
12/29/2020	24.0	43.9	1,797	2,587,536	1,135,501	1,013.0	1,150.3
12/30/2020	24.0	43.9	1,818	2,618,101	1,148,914	1,013.0	1,163.9
12/31/2020	23.8	43.9	1,853	2,649,886	1,162,863	1,013.0	1,178.0
Totals/ Average:	**743.83**	**43.9**	**1,806**	**80,585,896**	**35,363,912**	**1013.0**	**35,824**
Notes:						**Maximum:**	**1,275**

*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-17**

MONTH: **January-21**

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
1/1/2021	24.0	43.9	1,851	2,665,590	1,169,754	1,013.0	1,185.0
1/2/2021	24.0	43.9	1,845	2,657,515	1,166,211	1,013.0	1,181.4
1/3/2021	24.0	43.9	1,868	2,689,761	1,180,361	1,013.0	1,195.7
1/4/2021	24.0	43.9	1,853	2,668,466	1,171,016	1,013.0	1,186.2
1/5/2021	24.0	43.9	1,842	2,653,007	1,164,232	1,013.0	1,179.4
1/6/2021	24.0	43.9	1,841	2,650,410	1,163,093	1,013.0	1,178.2
1/7/2021	24.0	43.9	1,844	2,654,701	1,164,976	1,013.0	1,180.1
1/8/2021	24.0	43.9	1,842	2,653,092	1,164,270	1,013.0	1,179.4
1/9/2021	24.0	43.9	1,844	2,654,706	1,164,978	1,013.0	1,180.1
1/10/2021	24.0	43.9	1,843	2,653,452	1,164,428	1,013.0	1,179.6
1/11/2021	24.0	43.9	1,849	2,662,647	1,168,463	1,013.0	1,183.7
1/12/2021	24.0	43.9	1,838	2,646,230	1,161,258	1,013.0	1,176.4
1/13/2021	24.0	43.9	1,827	2,631,039	1,154,592	1,013.0	1,169.6
1/14/2021	24.0	43.9	1,785	2,569,876	1,127,752	1,013.0	1,142.4
1/15/2021	24.0	43.9	1,746	2,514,186	1,103,313	1,013.0	1,117.7
1/16/2021	24.0	43.9	1,726	2,485,397	1,090,679	1,013.0	1,104.9
1/17/2021	24.0	43.9	1,736	2,499,440	1,096,842	1,013.0	1,111.1
1/18/2021	24.0	43.9	1,723	2,481,494	1,088,966	1,013.0	1,103.1
1/19/2021	24.0	43.9	1,679	2,417,493	1,060,881	1,013.0	1,074.7
1/20/2021	24.0	43.9	1,680	2,418,638	1,061,383	1,013.0	1,075.2
1/21/2021	24.0	43.9	1,693	2,437,560	1,069,687	1,013.0	1,083.6
1/22/2021	24.0	43.9	1,672	2,407,537	1,056,511	1,013.0	1,070.2
1/23/2021	24.0	43.9	1,660	2,391,042	1,049,273	1,013.0	1,062.9
1/24/2021	24.0	43.9	1,655	2,383,232	1,045,846	1,013.0	1,059.4
1/25/2021	24.0	43.9	1,650	2,376,453	1,042,871	1,013.0	1,056.4
1/26/2021	23.1	43.9	1,657	2,299,651	1,009,167	1,013.0	1,022.3
1/27/2021	24.0	43.9	1,674	2,411,164	1,058,103	1,013.0	1,071.9
1/28/2021	20.2	43.9	1,727	2,097,162	920,308	1,013.0	932.3
1/29/2021	24.0	43.9	1,803	2,596,661	1,139,506	1,013.0	1,154.3
1/30/2021	24.0	43.9	1,811	2,607,643	1,144,325	1,013.0	1,159.2
1/31/2021	24.0	43.9	1,816	2,615,671	1,147,848	1,013.0	1,162.8
Totals/ Average:	**739.37**	**43.9**	**1,770**	**78,550,916**	**34,470,891**	**1013.0**	**34,919**
Notes:						**Maximum:**	**1,196**

*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-17**

MONTH: **February-21**

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
2/1/2021	22.4	43.9	1,869	2,512,328	1,102,497	1,013.0	1,116.8
2/2/2021	24.0	43.9	1,819	2,619,565	1,149,557	1,013.0	1,164.5
2/3/2021	24.0	43.9	1,801	2,593,186	1,137,981	1,013.0	1,152.8
2/4/2021	24.0	43.9	1,788	2,574,871	1,129,944	1,013.0	1,144.6
2/5/2021	24.0	43.9	1,782	2,565,757	1,125,944	1,013.0	1,140.6
2/6/2021	24.0	43.9	1,778	2,560,283	1,123,542	1,013.0	1,138.1
2/7/2021	24.0	43.9	1,774	2,554,947	1,121,200	1,013.0	1,135.8
2/8/2021	24.0	43.9	1,525	2,195,309	963,378	1,013.0	975.9
2/9/2021	24.0	43.9	1,321	1,901,875	834,609	1,013.0	845.5
2/10/2021	24.0	43.9	1,645	2,368,464	1,039,365	1,013.0	1,052.9
2/11/2021	24.0	43.9	1,827	2,630,869	1,154,517	1,013.0	1,169.5
2/12/2021	24.0	43.9	1,820	2,621,060	1,150,213	1,013.0	1,165.2
2/13/2021	24.0	43.9	1,822	2,623,957	1,151,484	1,013.0	1,166.5
2/14/2021	24.0	43.9	1,796	2,585,800	1,134,740	1,013.0	1,149.5
2/15/2021	24.0	43.9	1,821	2,622,162	1,150,696	1,013.0	1,165.7
2/16/2021	24.0	43.9	1,842	2,652,293	1,163,919	1,013.0	1,179.0
2/17/2021	24.0	43.9	1,848	2,660,657	1,167,589	1,013.0	1,182.8
2/18/2021	23.8	43.9	1,891	2,703,578	1,186,425	1,013.0	1,201.8
2/19/2021	24.0	43.9	1,870	2,693,011	1,181,787	1,013.0	1,197.2
2/20/2021	24.0	43.9	1,837	2,645,059	1,160,744	1,013.0	1,175.8
2/21/2021	24.0	43.9	1,843	2,653,820	1,164,589	1,013.0	1,179.7
2/22/2021	24.0	43.9	1,855	2,670,661	1,171,980	1,013.0	1,187.2
2/23/2021	24.0	43.9	1,850	2,663,500	1,168,837	1,013.0	1,184.0
2/24/2021	24.0	43.9	1,834	2,641,469	1,159,169	1,013.0	1,174.2
2/25/2021	24.0	43.9	1,739	2,504,736	1,099,166	1,013.0	1,113.5
2/26/2021	24.0	43.9	1,663	2,394,756	1,050,903	1,013.0	1,064.6
2/27/2021	24.0	43.9	1,646	2,370,935	1,040,449	1,013.0	1,054.0
2/28/2021	24.0	43.9	1,659	2,389,441	1,048,570	1,013.0	1,062.2
Totals/ Average:	**670.23**	**43.9**	**1,770**	**71,174,349**	**31,233,795**	**1013.0**	**31,640**
Notes:						**Maximum:**	**1,202**

*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-17**

MONTH: **March-21**

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
3/1/2021	24.0	43.9	1,668	2,401,683	1,053,943	1,013.0	1,067.6
3/2/2021	24.0	43.9	1,811	2,608,440	1,144,675	1,013.0	1,159.6
3/3/2021	24.0	43.9	1,982	2,854,429	1,252,623	1,013.0	1,268.9
3/4/2021	24.0	43.9	1,979	2,849,595	1,250,502	1,013.0	1,266.8
3/5/2021	24.0	43.9	1,956	2,817,217	1,236,293	1,013.0	1,252.4
3/6/2021	24.0	43.9	1,861	2,680,239	1,176,183	1,013.0	1,191.5
3/7/2021	24.0	43.9	1,853	2,667,890	1,170,764	1,013.0	1,186.0
3/8/2021	24.0	43.9	1,835	2,642,003	1,159,403	1,013.0	1,174.5
3/9/2021	24.0	43.9	1,843	2,653,802	1,164,581	1,013.0	1,179.7
3/10/2021	24.0	43.9	1,842	2,652,207	1,163,881	1,013.0	1,179.0
3/11/2021	24.0	43.9	1,837	2,645,298	1,160,849	1,013.0	1,175.9
3/12/2021	24.0	43.9	1,869	2,691,808	1,181,260	1,013.0	1,196.6
3/13/2021	24.0	43.9	1,871	2,694,507	1,182,444	1,013.0	1,197.8
3/14/2021	23.0	43.9	1,881	2,595,578	1,139,030	1,013.0	1,153.8
3/15/2021	24.0	43.9	1,854	2,669,894	1,171,643	1,013.0	1,186.9
3/16/2021	24.0	43.9	1,860	2,678,834	1,175,566	1,013.0	1,190.8
3/17/2021	21.3	43.9	1,982	2,532,740	1,111,455	1,013.0	1,125.9
3/18/2021	24.0	43.9	2,030	2,923,143	1,282,777	1,013.0	1,299.5
3/19/2021	24.0	43.9	1,989	2,864,564	1,257,071	1,013.0	1,273.4
3/20/2021	24.0	43.9	1,947	2,803,372	1,230,218	1,013.0	1,246.2
3/21/2021	24.0	43.9	1,953	2,812,202	1,234,093	1,013.0	1,250.1
3/22/2021	24.0	43.9	1,967	2,832,468	1,242,986	1,013.0	1,259.1
3/23/2021	24.0	43.9	1,992	2,868,746	1,258,906	1,013.0	1,275.3
3/24/2021	24.0	43.9	2,014	2,900,003	1,272,623	1,013.0	1,289.2
3/25/2021	24.0	43.9	2,008	2,891,040	1,268,690	1,013.0	1,285.2
3/26/2021	24.0	43.9	1,991	2,867,718	1,258,455	1,013.0	1,274.8
3/27/2021	24.0	43.9	2,008	2,892,047	1,269,131	1,013.0	1,285.6
3/28/2021	24.0	43.9	2,029	2,921,656	1,282,125	1,013.0	1,298.8
3/30/2021	24.0	43.9	2,013	2,898,170	1,271,818	1,013.0	1,288.4
3/31/2021	24.0	43.9	2,029	2,922,015	1,282,282	1,013.0	1,299.0
Totals/ Average:	**740.30**	**43.9**	**1,928**	**85,649,982**	**37,586,210**	**1013.0**	**38,075**
Notes:						**Maximum:**	**1,299**

*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
910 Coyote Creek Golf Drive,
San Jose, CA 95037

April 1, 2021

Ms. Becky Azevedo
Guadalupe Recycling & Disposal Facility
15999 Guadalupe Mines Road
San Jose, CA 95120

Re: First Quarter 2021 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 First Quarter 2021 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	3/19/21;1:54PM	0	0.01	Yes	Yes	
GUADGP02	2/19/21;1:32 PM	0	0.00	Yes	Yes	
GUADGP03	2/19/21;2:08 PM	0	0.03	Yes	Yes	
GUADGP04	2/19/21;2:39 PM	0	-1.45	Yes	Yes	
GUADGP05	2/19/21;2:33 PM	0	0.39	Yes	Yes	
GUADGP6S	2/19/21;2:26 PM	0	0.25	Yes	Yes	
GUADGP6D	2/19/21;2:29 PM	0	0.46	Yes	Yes	

STRUCTURE FID MONITORING DATA

Analyst: M. Bernard **Date: 3/11/2021**
Instrument: TVA 1000 **Serial #: 0928538411**

Monitored Location	Time	PPM	Comments
Scale House #1 Occupied Space	2:00 PM	0	
Scale House #1 Electrical Closet	2:02 PM	0	
Scale House #2 Occupied Space	2:05 PM	80	
Scale House #2 Electrical Closet	2:07 PM	0	
Scale House #3 Occupied Space	2:14 PM	0	
Scale House #3 Electrical Closet	2:12 PM	0	
Admin Office Crawl Space	12:20 PM	0	
Admin Office Electrical Closet	12:25 PM	0	
Admin Trailer	12:30 PM	0	
Security Trailer	12:40 PM	0	
MRF Scale House	12:50 PM	0	
MRF Building East Electrical	12:52 PM	0	
Maintenance Building Office Outlet	1:05 PM	0	
Maintenance Building Kitchen Outlet	1:10 PM	0	
Maintenance Building Shower Drain	1:15 PM	0	
Maintenance Building Electrical Box	1:20 PM	0	
Training Room Trailer	1:25 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 First Quarter 2021 monitoring was conducted by M.Bernard on February 19, 2021 and March 19, 2021 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 March 11, 2021. The instrument was calibrated on March 11, 2021 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 March 12, 2021.

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	2/19/2021	3/19/2021
General Conditions	Mostly Cloudy	Cloudy
Temperature (°F) Low/High	55/64	55/61
Wind Speed (mph)	9.3	10
Wind Direction	SE	NNW
Barometric Pressure (“Hg)	30.31	30.15

CLOSING

If you have any questions regarding this notification, please do not hesitate to contact me at rphadnis@wm.com.

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\2402070001A1.DWG

ATTACHMENT B

FIELD DATA

Guadalupe Rubbish Disposal Facility
Perimeter Gas Monitoring Probe Results

Analyst: Markus Bernard
Date: 2/19/21, 3/19/21
Instrument: Gem 5000 Serial #: G502468
Atmospheric Temperature (Deg F): 61, 64
Barometric Pressure: 29 Inch of HG
Wind Speed: 8, 6 Wind Direction: NW, NW
Weather Condition: Sunny, Rainy

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
GUADGP01	1:54PM 3/19/21	0	0.01	Yes	Yes	
GUADGP02	1:32 PM	0	0.00	Yes	Yes	
GUADGP03	2:08 PM	0	0.03	Yes	Yes	
GUADGP04	2:39 PM	0	-1.45	Yes	Yes	
GUADGP05	2:33 PM	0	0.39	Yes	Yes	
GUADGP6S	2:26 PM	0	0.25	Yes	Yes	
GUADGP6D	2:29 PM	0	0.46	Yes	Yes	

Immediately notify compliance personnel of any readings in excess of 5 percent methane.

STRUCTURE FID MONITORING DATA

Analyst: M. Bernard **Date: 3/11/2021**
Instrument: TVA 1000 **Serial #: 0928538411**

Monitored Location	Time	PPM	Comments
Scale House #1 Occupied Space	2:00 PM	0	
Scale House #1 Electrical Closet	2:02 PM	0	
Scale House #2 Occupied Space	2:05 PM	80	
Scale House #2 Electrical Closet	2:07 PM	0	
Scale House #3 Occupied Space	2:14 PM	0	
Scale House #3 Electrical Closet	2:12 PM	0	
Admin Office Crawl Space	12:20 PM	0	
Admin Office Electrical Closet	12:25 PM	0	
Admin Trailer	12:30 PM	0	
Security Trailer	12:40 PM	0	
MRF Scale House	12:50 PM	0	
MRF Building East Electrical	12:52 PM	0	
Maintenance Building Office Outlet	1:05 PM	0	
Maintenance Building Kitchen Outlet	1:10 PM	0	
Maintenance Building Shower Drain	1:15 PM	0	
Maintenance Building Electrical Box	1:20 PM	0	
Training Room Trailer	1:25 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

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	3-12-21	1500700093GAM	Yes	Good Condition
Scale House #2	3-12-21	1500700098GAM	Yes	Good Condition
Scale House #3	3-12-21	1500700101GAM	Yes	Good Condition
Training Room Trailer	3-12-21	1500700096GAM	Yes	Good Condition
Admin. Trailer	3-12-21	1500700097GAM	Yes	Good Condition
Main Office	3-12-21	1500700090GAM	Yes	Good Condition
MRF Scale House	3-12-21	1500700099GAM	Yes	Good Condition
Materials Yard Trailer	3-12-21	1500700091GAM	Yes	Good Condition
Shop Office #1	3-12-21	1500700010GAM	Yes	Good Condition
Shop Office #2	3-12-21	1500700094GAM	Yes	Good Condition
Shop Office #3	3-12-21	1500700095GAM	Yes	Good Condition
Shop Office #4	3-12-21	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: 3/11/21

Time: _____ AM 12:12 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): 8 ppm (a)
2. Downwind Reading (highest in 30 seconds): 2 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 5 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 3/3/2021

Expiration Date (3 months): 6/2/2021

Time: 8:48 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: 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: 496 ppm (f)

Calculate Precision:

$$\frac{\{|(500)-(500)|+|(500)-(498)|+|(500)-(496)|\}}{3} \times \frac{1}{500} \times 100$$

1.2 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 3/3/21

Expiration Date (3 months): 6/2/21

Time: 8:48 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: 10 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: 7 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: 7 seconds (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} = 8 \text{ seconds (must be less than 30 seconds)}$$

Performed by: M. Bernard

WASTE MANAGEMENT
910 Coyote Creek Golf Drive,
San Jose, CA 95037

January 29, 2021

Ms. Becky Azevedo
Guadalupe Recycling & Disposal Facility
15999 Guadalupe Mines Road
San Jose, CA 95120

Re: Fourth 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 Fourth 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	12/21/2020;12:42PM	0	0.06	Yes	Yes	
GUADGP02	12/21/2020;12:36 PM	0	0.00	Yes	Yes	
GUADGP03	12/21/2020;12:22 PM	0	0.00	Yes	Yes	
GUADGP04	12/21/2020;12:05 PM	0	-0.81	Yes	Yes	
GUADGP05	12/21/2020;11:59 AM	0	0.27	Yes	Yes	
GUADGP6S	12/21/2020;11:53 AM	0	0.03	Yes	Yes	
GUADGP6D	12/21/2020;11:56 AM	0	0.06	Yes	Yes	

STRUCTURE FID MONITORING DATA

Analyst: M. Bernard **Date: 12/18/2020**
Instrument: TVA 1000 **Serial #: 0928538411**

Monitored Location	Time	PPM	Comments
Scale House #1 Occupied Space	1:00 PM	0	
Scale House #1 Electrical Closet	1:02 PM	0	
Scale House #2 Occupied Space	1:05 PM	50	
Scale House #2 Electrical Closet	1:07 PM	0	
Scale House #3 Occupied Space	1:10 PM	0	
Scale House #3 Electrical Closet	1:12 PM	0	
Admin Office Crawl Space	1:20 PM	0	
Admin Office Electrical Closet	1:25 PM	0	
Admin Trailer	12:30 PM	0	
Security Trailer	12:40 PM	0	
MRF Scale House	12:50 PM	0	
MRF Building East Electrical	12:52 PM	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 Fourth Quarter 2020 monitoring was conducted by M.Bernard on December 21, 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 December 18, 2020. The instrument was calibrated on December 18, 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 December 18, 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	12/21/2020
General Conditions	Cloudy
Temperature (°F)-Lo/Hi	52/61
Wind Speed (mph)	5.6
Wind Direction	NNW
Barometric Pressure (“Hg)	30.03

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\2402070001A1.DWG

ATTACHMENT B

FIELD DATA

Guadalupe Rubbish Disposal Facility
Perimeter Gas Monitoring Probe Results

Analyst: Markus Bernard
Date: 12/21/20
Instrument: Gem 5000 Serial #: G502468
Atmospheric Temperature (Deg F): 61
Barometric Pressure: 29 Inch of HG
Wind Speed: 6 mph Wind Direction: NW
Weather Condition: Sunny

Probe ID	Time	CH_4 (%)	Probe Pressure (in-H_20)	Probe Condition (clean, capped, locked)		Comments
				Arrival	Departure	
GUADGP01	12:42PM	0	0.06	Yes	Yes	
GUADGP02	12:36 PM	0	0.00	Yes	Yes	
GUADGP03	12:22 PM	0	0.00	Yes	Yes	
GUADGP04	12:05 PM	0	-0.81	Yes	Yes	
GUADGP05	11:59 AM	0	0.27	Yes	Yes	
GUADGP6S	11:53 AM	0	0.03	Yes	Yes	
GUADGP6D	11:56 AM	0	0.06	Yes	Yes	

Immediately notify compliance personnel of any readings in excess of 5 percent methane.

STRUCTURE FID MONITORING DATA

Analyst: M. Bernard **Date: 12/18/2020**
Instrument: TVA 1000 **Serial #: 0928538411**

Monitored Location	Time	PPM	Comments
Scale House #1 Occupied Space	1:00 PM	0	
Scale House #1 Electrical Closet	1:02 PM	0	
Scale House #2 Occupied Space	1:05 PM	50	
Scale House #2 Electrical Closet	1:07 PM	0	
Scale House #3 Occupied Space	1:10 PM	0	
Scale House #3 Electrical Closet	1:12 PM	0	
Admin Office Crawl Space	1:20 PM	0	
Admin Office Electrical Closet	1:25 PM	0	
Admin Trailer	12:30 PM	0	
Security Trailer	12:40 PM	0	
MRF Scale House	12:50 PM	0	
MRF Building East Electrical	12:52 PM	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

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	12-18-20	1500700093GAM	Yes	Good Condition
Scale House #2	12-18-20	1500700098GAM	Yes	Good Condition
Scale House #3	12-18-20	1500700101GAM	Yes	Good Condition
Training Room Trailer	12-18-20	1500700096GAM	Yes	Good Condition
Admin. Trailer	12-18-20	1500700097GAM	Yes	Good Condition
Main Office	12-18-20	1500700090GAM	Yes	Good Condition
MRF Scale House	12-18-20	1500700099GAM	Yes	Good Condition
Materials Yard Trailer	12-18-20	1500700091GAM	Yes	Good Condition
Shop Office #1	12-18-20	1500700010GAM	Yes	Good Condition
Shop Office #2	12-18-20	1500700094GAM	Yes	Good Condition
Shop Office #3	12-18-20	1500700095GAM	Yes	Good Condition
Shop Office #4	12-18-20	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: 12/18/20

Time: _____ AM 12:00 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): 1 ppm (a)
2. Downwind Reading (highest in 30 seconds): 1 ppm (b)

Calculate Background Value:

$\frac{(a) + (b)}{2}$ Background = 0.5 ppm

Performed by: Markus Bernard

CALIBRATION PRECISION TEST RECORD

Date: 9/30/2020

Expiration Date (3 months): 12/30/2020

Time: 9:00 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: 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: 496 ppm (f)

Calculate Precision:

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

0.8 % (must be < than 10%)

Performed by: M. Bernard

RESPONSE TIME TEST RECORD

Date: 9/30/20

Expiration Date (3 months): 12/30/20

Time: 9:00 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:	4	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:	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 (c)

Calculate Response Time:

$$\frac{(a) + (b) + (c)}{3} =$$ 4.6 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 Test Report #20066
Landfill Gas Control Flare- Source A-14

Located at:

15999 Guadalupe Mines Road
San Jose, CA

Prepared For:

SCS Engineers
Dave Bearden
3117 Fite Circle, Suite 108
Sacramento, CA 95827
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:
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

TABLE of CONTENTS

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

A.	**Tabulated Results**
B.	**Calculations**
C.	**Laboratory Reports**
D.	**Field Data Sheets**
E.	**Strip Charts**
F.	**Process Information**
G.	**Calibration Certifications and Quality Assurance Records**
H.	**Sample Train Configuration and Stack Diagrams**
I.	**Related Correspondence (Source Test Plan and Email)**
J.	**BAAQMD Permit Conditions**
K.	**Flare Flow Meter Calibration Records**

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	**or**
INLET NMOC lbs/hr as CH_4	9.8	11.3	11.7	10.9	
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

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
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For Submittal To:
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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

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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.

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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**
D.	**Field Data Sheets**
E.	**Strip Charts**
F.	**Process Information**
G.	**Calibration Certifications and Quality Assurance Records**
H.	**Sample Train Configuration and Stack Diagrams**
I.	**Related Correspondence (Source Test Plan)**
J.	**BAAQMD Permit Conditions**
K.	**Flare Flow Meter Calibration Document**

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)
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