

# Kirby Canyon Recycling & Disposal Facility

A Waste Management Company

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1. D RECEIVED IN 07/29/2021 ENFORCEMENT:

July 20, 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 Enforcement Division

USEPA, Region IX 75 Hawthorne Street San Francisco, CA 94105

Attn: TRI and Air Section (ENF-2-1)

SUBJECT:

Combined Title V Semi-Annual and Partial 8-34 Annual Report 40 CFR 63

Subpart AAAA Semi-Annual Report

The Kirby Canyon Recycling & Disposal Facility 910 Coyote Creek Golf Drive, San Jose, CA 95037

Facility Number A1812

Dear Sir or Madam:

The Kirby Canyon Recycling & Disposal Facility (KCRDF) is pleased to submit the attached Combined Title V Semi-Annual and Partial 8-34 Annual Report for the period of January 1, 2021 through June 30, 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 Condition Number 1437 Part 16 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,

The Kirby Canyon Recycling & Disposal Facility

Enrique Perez

Responsible Official

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 Kirby Canyon Recycling & Disposal Facility 910 Coyote Creek Golf Drive San Jose, California 95037 Facility Number A1812 January 1, 2021 through June 30, 2021

Submitted on: July 29, 2021

Prepared for:
The Kirby Canyon Recycling & Disposal Facility

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

and

USEPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105
Attn: Director Enforcement Division, TRI & Air Section (ENF-2-1)

Prepared by:



Kirby Canyon Recycling & Disposal Facility

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#### 1 INTRODUCTION

#### 1.1 Purpose

This document is a Combined Semi-Annual Title V Report and Partial 8-34 Annual Report for the Kirby Canyon Recycling & Disposal Facility (KCRDF), pursuant to Title V Permit Standard Condition 1.F and Condition Number 1437 Part 16. This Combined Report satisfies the requirements of Regulation 8, Rule 34, Section 411 of the Bay Area Air Quality Management District (BAAQMD) and Title 40 Code of Federal Regulations (CFR) Part 60 Subpart CC, Emission Guidelines (EG) for municipal solid waste (MSW) landfills. This Combined Report meets the requirements of Title V Standard Condition 1.F, BAAQMD Regulation 8-34-411, and 40 CFR §60.757(f) and 40 CFR part 62, Subpart F and OOO and covers compliance activities conducted from January 1, 2021 through June 30, 2021. During the timeframe included in this report from January 1, 2021 through June 30, 2021, the site began compliance activities with specific condition of Subpart OOO related to wellhead temperature standards. 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 Regulation 8-34-411 and 40 CFR §60.757(f). A Performance Test Report for the A-12 Flare that meets the requirements of both BAAQMD Regulation 8-34-413 and 40 CFR §60.758(g) was conducted on February 25, 2021. Section 3 of this Combined Report includes performance test data collected during the reporting period as well as a discussion of the data from the Performance Test for the A-12 Flare, in compliance with BAAQMD Regulation 8-34-412, and Title V Permit Condition Number 1437 Parts 12 and 13. The February 25, 2021, Performance Test Report results for the A-12 Flare are included in Appendix O of the Combined Report.

Section 4 contains the Semi-Annual Report of SSM Plan activities.

## 1.2 Record Keeping and Reporting

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

## 1.3 Report Preparation

This Combined Report has been prepared by the KCRDF.

#### 2 SEMI-ANNUAL MONITORING REPORT

In accordance with the KCRDF Title V Permit Standard Condition 1.F; Condition 1437, Part 16; BAAQMD Regulation 8-34-411 and 40 CFR §60.757(f), this report is a Combined Semi-Annual Title V Report and Partial 8-34 Annual Report that is required to be submitted by the KCRDF. 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 January 1, 2021 through June 30, 2021. The following table lists the rules and regulations that are required to be included in this Combined Report.

**Table 2-1 Semi-Annual 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 & C
8-34-501.2 §60.757(f)(3)	All emission control system downtime and the reason for the shutdown.	Section 2.2, Appendix B
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 D
8-34-501.4, 8-34-510	Testing performed to satisfy any of the requirements of this Rule.	Sections 2.4 & 2.10, Appendix E
8-34-501.5, 8-34-505	Monthly landfill gas (LFG) flow rates and well concentration readings for facilities subject to 8-34-404.	Sections 2.5, 2.10 & 2.11, Appendices I & 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 remonitoring, and the re-monitored concentration in ppmv.	
8-34-501.7	Annual waste acceptance rate and current amount of waste in place.	Section 2.8
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 Collection and Control Design Plan.	Section 2.9
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, Appendices I & 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, Appendix 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

Table 2-1 (Continued)

RULE	REQUIREMENT	LOCATION IN REPORT
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.	
§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 2.13
§60.10 (d)(5)(i)	Start-up, Shutdown, and Malfunction Events	Section 4, Appendices B & C

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

Appendix A contains a map of the KCRDF's existing landfill GCCS. Section 2.1.1 summarizes the collection system downtime. Section 2.1.2 includes the individual well shutdown times and the reason for each shutdown.

#### 2.1.1 Collection System Downtime

During the period covered in this report, the landfill GCCS was not shutdown for more than five days on any one occasion. The downtime for the 2021 partial calendar year (January 1, 2021 through June 30, 2021) is 47.1 hours out of an allowable 240 hours per year pursuant to BAAQMD Regulation 8-34-113.2 (Limited Exemption, Inspection and Maintenance). The Flare SSM Log that list dates, times, and lengths of shutdowns for the reporting period is included in Appendix B.

#### 2.1.2 Well Start-Up and Disconnection Log

There were ten (10) Well SSM events during the reporting period. Wellfield construction activity is discussed in Section 2.13.

The Wellfield SSM Log that list dates, times, and lengths of shutdowns for the reporting period is included in Appendix C.

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

No bypassing of the control system or other emissions of raw LFG occurred during the reporting period. The SSM Log that includes all downtimes and reasons for each shutdown for the A-12 Flare is presented in Appendix B. As indicated in Section 2.1.1, the collection system downtime for the 2021 partial calendar year (January 1, 2021 through June 30, 2021) is 47.1 hours out of an allowable 240 hours per year pursuant to BAAQMD Regulation 8-34-113.2 (Limited Exemption, Inspection and Maintenance).

During the reporting period, BAAQMD issued KCRDF Notice of Violation ("NOV") Number A-57374 dated March 12, 2021, for alleged temporary flare shutdown events caused by unplanned utility power outages on January 2 and 9, February 9 and 11, March 17, April 3, May 8, 9, and 27, June 9 and 30, July 12, August 24, September 27, and December 29, 2020 ("NOV Dates"). KCRDF submitted via email the 10-day NOV response and Title V 10-day letters on March 19, 2021, and Title V 30-day letter on April 6, 2021. Copies of submitted letters are included in Appendix J.

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

Title 40 CFR §60.757(f)(2) is not applicable at the KCRDF because a bypass 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)

The A-12 Flare is subject to continuous temperature monitoring as required in BAAQMD Regulation 8-34-507 and §60.757(f)(1). See Section 2.3 for flare temperature monitoring results.

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

The combustion zone temperature of the A-12 Flare is monitored with Type K Thermocouples. The temperature is displayed and digitally recorded with a General Electric (GE) data panel and Yokogawa FX112 continuous digital recorder. The temperature readings are downloaded and archived each working day.

Flare operating records indicate that the A-12 Flare three-hour average combustion zone temperature did not drop below the 1,400 degrees Fahrenheit (°F) limit, as required by Title V Permit A1812 Condition 1437 Part 10, during the reporting period when the A-12 Flare was in operation.

The flare operating records also indicate that the A-12 Flare combustion zone temperature did not drop below 1,549°F on a three-hour average basis, while in operation during the reporting period (January 1, 2021 through April 14, 2021), pursuant to the limits established during the March 4, 2020 Performance Test. The flare operating records also indicate that the A-12 Flare combustion zone temperature did not drop below 1,514°F on a three-hour average basis, while in operation during the reporting period (April 15, 2021 through June 30, 2021), pursuant to the limits established during the February 25, 2021 Performance Test.

Appendix D contains flare temperature deviation/ inoperative monitor reports for the reporting period while the A-12 Flare was in operation.

#### 2.4 Monthly Cover Integrity Monitoring (BAAQMD 8-34-510)

The Monthly Cover Integrity Monitoring Reports are included in Appendix E. The cover integrity monitoring was performed on the following dates:

- January 29, 2021
- February 25, 2021
- March 24, 2021
- April 26,2021
- May 25 and 26, 2021
- June 25, 2021

During March 2021 monthly monitoring event, it was noted that there was one location with erosion. The corrective action was completed on March 26, 2021 by adding cover to the location. During May 2021 monthly monitoring event, it was noted that there was one location with erosion. The corrective action was completed on May 25 and 26, 2021 by adding cover to the areas on the slopes. No other breaches of cover integrity (e.g. cover cracks or exposed garbage) were found during the reporting period. See Appendix E, Cover Integrity Monitoring Reports, for more detail.

#### 2.5 Less than Continuous Operation (BAAQMD 8-34-501.5)

The KCRDF 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:

- First Quarter 2021 February 23, 2021
- Second Quarter 2021 May 17 and 18, 2021

A Thermo Scientific Toxic Vapor Analyzer 1000 (TVA1000) flame ionization detector (FID) was used to perform the SEM during the First and Second Quarter 2021 events. The landfill surface was monitored along the path delineated on the SEM walking path map. Any areas suspected of having emission problems by visible observations were also monitored. Immediately prior to the First and Second Quarter 2021 monitoring events, the monitoring equipment was calibrated using zero air and a 500 parts per million by volume (ppmv) methane (CH<sub>4</sub>) calibration gas.

The First Quarter 2021 SEM was performed on February 23, 2021 and fourteen (14) exceedances (FID readings greater than 500 ppm CH<sub>4</sub> above background

measurements) were detected. Corrective actions were completed. The ten-day remonitoring event was conducted on March 3, 2021, and no further exceedances were detected. The thirty-day follow-up monitoring event was conducted on March 23, 2021 and no exceedances were detected.

The Second Quarter 2021 SEM was performed on May 17 and 18, 2021 and twenty-eight (28) exceedances (FID readings greater than 500 ppm CH<sub>4</sub> above background measurements) were detected. Corrective actions were completed. The first ten-day remonitoring event was conducted on May 27 and 18, 2021 and one (1) exceedance was detected. The second ten-day re-monitoring event was conducted on June 4, 2021, and no further exceedances were detected. The thirty-day follow-up monitoring event was conducted on June 16, 2021 and no exceedances were detected.

The First and Second Quarter 2021 SEM Reports are included in Appendix F.

#### 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:

- First Quarter 2021 February 23, 2021
- Second Quarter 2021- May 18,2021

A Thermo Scientific TVA1000 FID was used to perform both the First and Second 2021 2021 component leak testing events. No exceedances of 1,000 ppm were identified during the First and Second 2021 monitoring events.

Appendix G contains the Quarterly Component Leak Check Monitoring Reports.

## 2.8 Solid Waste Placement Records (BAAQMD 8-34-501.7)

The solid waste placement records were reviewed for the timeframe of January 1, 2021 through June 30, 2021. The current waste-in-place figure includes solid waste placed in the landfill through June 30, 2021. A table of monthly totals for the reporting period is provided in Appendix H. The total waste accepted and placed at the KCRDF landfill did not exceed the 2,600 ton-per-day limit during the reporting period, pursuant to Title V Permit Condition Number 1437, Part 1a. The current waste-in-place tonnage listed below did not exceed the 19.84 million tons limit as required in the Title V Permit Condition Number 1437, Part 1b. Table 2-2 summarizes the solid waste placement records for the reporting period.

**Table 2-2 Solid Waste Placement** 

Waste Placement	Total Waste Landfilled Excluding Cover
January 1, 2021 through June 30, 2021	111, 724 tons
Current Waste-In-Place as of June 30, 2021	Approximately 7.94 Million tons

# 2.9 Non-degradable Waste Acceptance Records (BAAQMD 8-34-501.8)

The GCCS Design Plan for the KCRDF does not include 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 BAAQMD Regulation 8-34-505. Effective June 21, 2021, the site began compliance activities with specific conditions of 40 CFR part 62, Subpart F and Subpart OOO relating to wellhead temperature standards. The well readings for January 1, 2021 through June 30, 2021 are included in Appendix I. 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 (131°F).
- 8-34-305.4 The oxygen (O<sub>2</sub>) concentration in each wellhead shall be less than 5 percent (%) by volume.

The wellhead monitoring was performed on the following dates:

- January 12, 13 and 14, 2021
- February 11, 12, 16 and 20, 2021
- March 3, 4, 8, 15, 16 and 17, 2021
- April 12, 13, 14 and 16, 2021
- May 3, 5, 6 and 7, 2021
- June 4, 5, 8, and 9, 2021

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

Please refer to the Wellfield Deviation Log, included in Appendix K, for exceedance records for the reporting period of January 1, 2021 through June 30, 2021. During this reporting period, there were no additional exceedances associated with specific conditions of 40 CFR part 62, Subpart F and Subpart OOO relating to wellhead temperature standards.

#### 2.10.2 Higher Operating Value (HOV) Wells

During the reporting period, the following wells were approved to operate at a higher operating value (HOV) temperature of 145°F: 51, 57, 58, 65, 66, 71, 74, 78, 86, 91, 95, 98, 99, 119, 127, 128, 133, and 135. Wells 56, 75, 76, 87, and 89, are approved to operate at a HOV temperature of 156°F.

Copies of all BAAQMD correspondence are located in Appendix J.

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

The A-12 Flare LFG flow rate is measured continuously with a Kurz flowmeter. The LFG flow is displayed and digitally recorded with a General Electric data panel and Yokogawa FX112 continuous digital recorder. The flow meter is maintained and calibrated pursuant to the manufacturer's recommendations. The flare flow meter meets the requirements of BAAQMD Regulation 8-34-508 by recording fuel flow at least every fifteen (15) minutes. Appendix D contains the specific details. The flow data for the flare are available for review at the KCRDF. Appendix L contains a summary of the monthly LFG flow rates and heat input for the flare.

Table 2-3 below is a summary of the LFG flow from January 1, 2021 through June 30, 2021, for the A-12 Flare. The A-12 Flare did not exceed the annual heat input rate of 1,087,700 million British Thermal Units (MMBTU), pursuant to Title V Permit A1812 Condition Number 1437, Part 8. The A-12 Flare did not exceed the permitted daily limit of 2,980 million British Thermal Units (BTU) for the duration of this event.

Table 2-3 Total LFG Flow A-12 Flare – January 1, 2021 through June 30, 2021

Emission Control Device	Average Flow (scfm)	Methane (%)	Total LFG Volume (scf)	Total CH <sub>4</sub> Volume (scf)	Heat Input (MMBTU)
A-12 Flare	2,084	46.7	536,948,461	250,581,050	253,839

scfm = standard cubic feet per minute CH<sub>4</sub> = methane % = percent scf = standard cubic feet \*Methane concentration from February 25, 2021 Source Test for the A-12 Flare.

## 2.12 Compliance with Title V Permit Cond. No. 1437, Part 14

The condensate injection rate did not exceed five (5) gallons per minute (gpm) during injection events (excluding startup times).

Table 2-4 summarizes the condensate injection rate and 12-month (consecutive) throughput in gallons for January 1, 2021 through June 30, 2021. Per Title V Permit A1812 Condition Number 1437 Part 14, the 12-month rolling average is below the permitted condensate injection limit of 2.0 million gallons per year. The monthly condensate injection logs are included in Appendix M.

**Table 2-4 Condensate Injection Rates** 

Month	Average Condensate Injection Rate (gpm)	Monthly Condensate Injection Throughput (gallons)	Condensate Injection Throughput 12-Month Total (gallons)
January -21	2.4	70,727	855,413
February-21	2.3	67,707	832,428
March-21	2.3	82,094	818,009
April-21	2.5	68,901	798,112
May-21	2.4	70,764	788,848
June-21	2.3	59,123	801,321

gpm= gallons per minute

#### 2.13 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 Number A1812 during the reporting period. During the reporting period, four vertical wells were decommissioned and twelve new vertical wells were started pursuant to Title V Permit Condition 1437 Part 6.

As of June 30, 2021, the GCCS system consists of 73 vertical wells, 0 horizontal collectors, and 3 leachate collection risers (LCRS).

## 2.14 Compliance with Title V Permit Cond. No. 1437, Parts 2 and 3

A total of 465.62 tons of contaminated soil containing volatile organic compounds (VOCs) greater than 50 parts per million (ppm) was received during the reporting period. Low-VOC soil (containing less than 50 ppm of VOCs) was received during the reporting period. Required records of soil acceptance are available for review at the KCRDF.

## 2.15 Compliance with Title V Permit Cond. No. 23022, Part 2

Diesel Engine S-8 (the diesel engine for the portable compressor) is required to be operated less than 1,290 hours during any consecutive 12-month period. S-8 operated a total of 156 hours during the 12-month period, January 1, 2020 through December 31, 2020. S-8 operated a total of 48 hours during the 6-month reporting period, January 1, 2021 through June 30, 2021. S-8 used a total of approximately 154 gallons of diesel fuel during the 6-month reporting period.

#### 2.16 Compliance with Title V Permit Cond. No. 1437, Part 20

Effective July 2012, the A-12 Flare Sulfur dioxide emissions shall not exceed 300 ppmv and SO<sub>2</sub> (dry) emissions shall not exceed 94.9 tons per year. The total reduced sulfur (TRS) shall not exceed 860 ppmv (dry) expressed as hydrogen sulfide.

To demonstrate compliance with above limits, the site will conduct annual testing of total TRS at the landfill gas main header. The source test data for (source test conducted on conducted March 4, 2020 and February 25, 2021) TRS value was used to calculate the monthly SO<sub>2</sub> emissions in tons. The SO<sub>2</sub> emission did not exceed limit during the reporting period. The SO<sub>2</sub> tons 12-month rolling logs are included in Appendix P.

#### 2.17 Compliance with Title V Permit Cond. No. 25872

To demonstrate compliance with permit limits 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 104,000 tons and 500 tons for each day. To demonstrate compliance with Source S-25 Green and Wood Waste Stockpile the total combined green waste and wood waste debris accepted at S-25 in any consecutive 12-month period is limited to 250,000 and 4,500 tons each day. During the reporting period, the site did not exceed the permitted annual and daily limits. Required records are available for review at the KCRDF.

#### 3 PERFORMANCE TEST REPORT

In accordance with BAAQMD Regulation 8-34-413 and 40 CFR §60.757(g) in the New Source Performance Standard (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 this Performance Test 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, Appendix O
§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 N

### 3.1 A-12 Flare Performance Test Results (BAAQMD 8-34-412)

The most recent A-12 Flare Compliance Demonstration Test (Performance Test) was performed on the A-12 Flare by Blue Sky Environmental, LLC on February 25, 2021, pursuant to Title V Permit A1812 Condition Number 1437 Part 12. The Performance Test Report for the A-12 Flare indicates that the flare is in compliance with BAAQMD Regulation 8-34-301.3. As required by BAAQMD Regulation 8-34-301.3, the flare meets the non-methane organic compound (NMOC) emission rate of less than 30 ppmv. Pursuant to Title V Permit A1812 Condition Number 1437 Part 10, the A-12 Flare meets the oxides of nitrogen (NO<sub>x</sub>) emission concentration limit of less than 0.06 pounds (lbs)/MMBTU. The A-12 Flare meets the carbon monoxide (CO) emission concentration limit of less than 0.3 lbs/MMBTU, pursuant to Title V Permit A1812 Condition Number 1437 Part 11. Table 3-2 shows the results of the A-12 Flare Performance Test, averaged from six test runs - three with condensate on, and three with condensate off.

The A-12 2021 Source Test Report was submitted to the BAAQMD on April 15, 2021, within 60 days of the test date. The source test results for the above control device is included in Appendix O.

Table 3-2 A-12 Flare Performance Test Results – February 25, 2021

Condition	Flare Average Condensate	Results Condensate	8-34-301.3 limit	Compliance Status		
NMOC (ppmv @ 3% O <sub>2</sub> , as CH <sub>4</sub> )	2.45	<b>OFF</b> 2.35	30 ppmv	In Compliance		
NO <sub>x</sub> , lbs/MMBTU	0.050	0.039	0.06	In Compliance		
CO, lbs/MMBTU	0.003	0.004	0.30	In Compliance		

### 3.2 Compliance with §60.757(g)(1)

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

A map dated November 12, 2020 of the landfill GCCS showing the positioning 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 KCRDF GCCS has historically provided LFG wells and collectors spaced in accordance with standard industry practices. The A-12 flare, LFG extraction wells, and piping are more than adequate to move the current LFG flow rate. KCRDF will continue to add additional LFG control capacity as necessary with the approval of BAAQMD. The installed collector density appears more than 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.

## **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. Combined LFG recovery for the reporting period was 2,058 scfm. The current A-12 flare system has the capacity to destroy ~ twice 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 all 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."

There are no segregated areas or accumulations of asbestos material documented for the site in the GCCS Design Plan. Therefore, 40 CFR §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."

Non-productive areas have not been excluded from the coverage of the GCCS. Therefore, 40 CFR §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 A-12 Flare and blower system were installed in October and November 2007 and started up on December 3, 2007. The A-12 Flare and blower system is anticipated to be able to accommodate the expected LFG flow rate over the life of the landfill.

## 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:

- First Quarter 2021 March 10 and 12, 2021
- Second Quarter 2021 April 19 and June 25, 2021

All probes were in compliance with no detections above the 5.0 percent methane limit during the First and Second Quarter 2021 monitoring events. There were no LFG migration occurrences at the KCRDF, and no areas of concern were identified during the First and Second Quarter 2021 monitoring events. The LFG migration monitoring and building monitoring results for both quarterly events are included in Appendix N.

#### **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 KCRDF does not meet the measures of performance set forth in the NSPS/EG, the GCCS will be adjusted or modified in accordance with the NSPS/EG requirements.

#### 4 START-UP, SHUTDOWN, MALFUNCTION REPORT

# 4.1 SSM Report for the Collection and Control Systems at the KCRDF

The NESHAPS 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 semi-annual reporting period are reported in this section (January 1, 2021 through June 30, 2021). The following information is included as required:

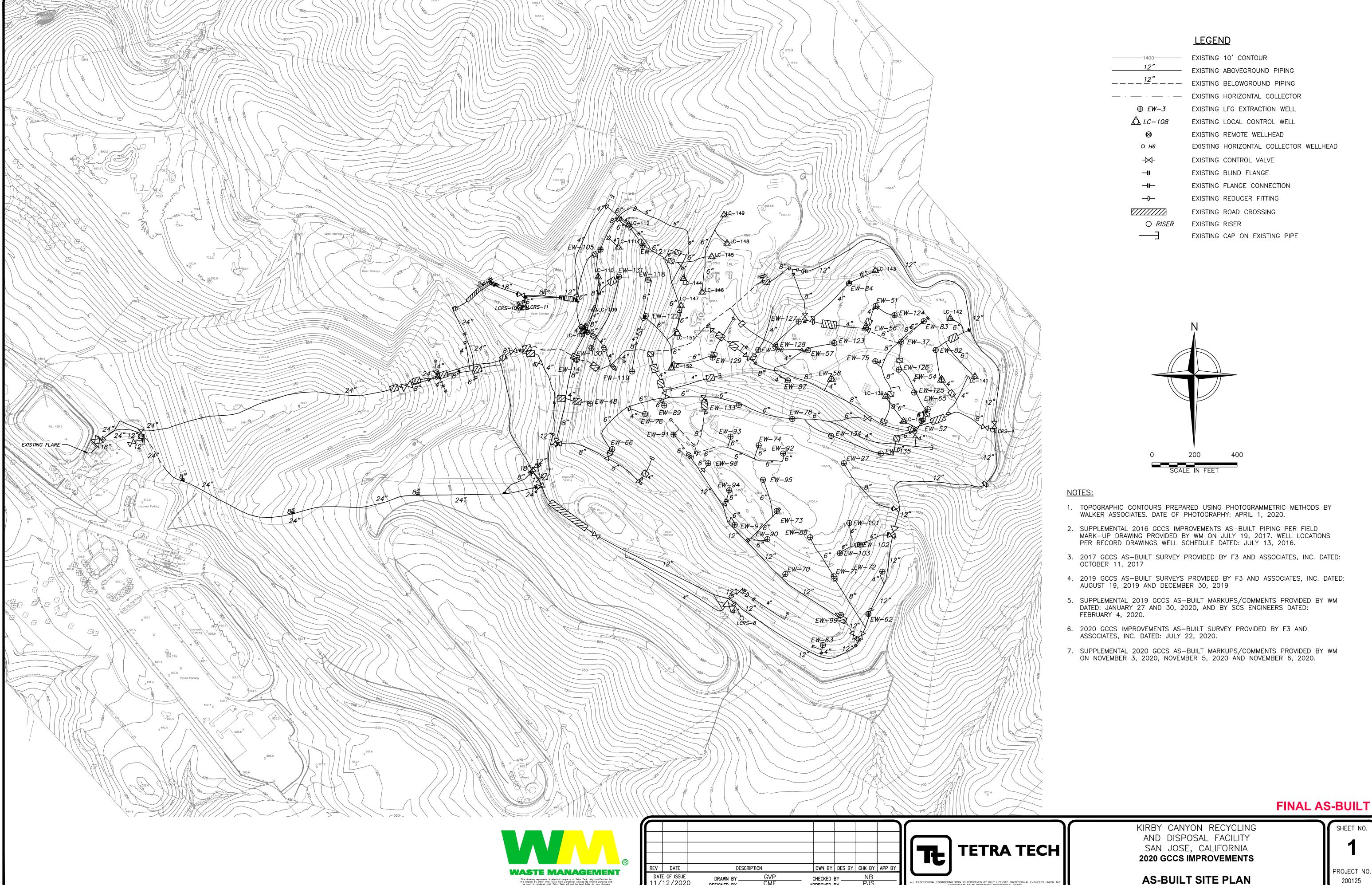
- During the reporting period, sixteen (16) A-12 Flare SSM events occurred. The A-12 Flare shut down and restarted during the reporting period due to the reasons noted in the Flare SSM Log, located in Appendix B.
- During the reporting period, ten (10) wellfield SSM events occurred. Details are included in the Wellfield SSM Log, located in Appendix C.
- During the reporting period, one (1) monitoring/recorder equipment SSM events occurred.
- In all twenty-seven (27) events, automatic systems and operator actions were consistent with the standard operating procedures contained in the SSM Plan.
- No exceedances of any applicable emission limitation in the landfills NESHAP (63.10(d)(5)(i)) occurred.
- 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.

La!	7-21-21
Signature of Responsible Official	Date
Enrique Perez	
Name of Responsible Official	

# APPENDIX A LANDFILL GAS COLLECTION SYSTEM SITE MAP



11/12/2020

DESIGNED BY \_\_\_

APPROVED BY \_

PROJECT NO.

200125

### **APPENDIX B**

### FLARE SSM LOG AND GCCS DOWNTIME REPORT

ATTECTED EQUIFIC								Completed	٠,.	Markus Demaru/Rajam Fila	unio								
		SAL FACILITY, San Jo																	
SSMP REPORT - From Identify Flare & Check Applicable Event	(1) Start of Event	(2) End of Event Date and Time	(3) Duration	(4) Duration Shutdown (Hours)	(5) Cause or Reason	Π	(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-12 Flare Startup Event				Silutuowii (Hours)		Х	113: Inspection and Maintenance			Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)					
x Shutdown Event Malfunction Event	1/05/21 00:24	1/05/21 00:28	0.07		Flare was shutdown due to low		Flare was shutdown due to low temperature alarm. Technician checked				117: Gas Collection 118: Construction Activities	1/5/2021	х	Automatic (Go to Section 11)	1 to 3		No (Stop)	X No (Stop)	
Component: A-12 Flare x Startup Event	1/05/21 11:50	1/05/21 11:56	0.10	11.43	field for possible air leak. Flare was inspected and restarted.		113: Inspection and Maintenance 116: Well Raising	1/5/2021	х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)					
Shutdown Event Malfunction Event	1/05/21 11:50	1/05/21 11:56	0.10				117: Gas Collection 118: Construction Activities	1/5/2021		Automatic (Go to Section 11)	1 to 4	Х	No (Stop)	No (Stop)					
Component: A-12 Flare Startup Event	1/20/21 12:00	1/20/21 12:04	0.07			Х	113: Inspection and Maintenance 116: Well Raising	1/20/2021	х	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)	Yes (Go to Section 11)					
x Shutdown Event Malfunction Event	1/20/21 12:00	1/20/21 12:04	0.07	0.50	Flare was shutdown during generator hook-up and generator rotation test.		117: Gas Collection 118: Construction Activities	1/20/2021		Automatic (Go to Section 10)	1 to 3	Х	No (Stop)	No (Stop)					
Component: A-12 Flare x Startup Event	1/20/21 12:30	1/20/21 12:36	0.10	0.50	Flare was inspected and restarted.	X	113: Inspection and Maintenance 116: Well Raising	1/20/2021	х	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)	Yes (Go to Section 11)					
Shutdown Event Malfunction Event						L	117: Gas Collection 118: Construction Activities			Automatic (Go to Section 10)	1 to 4	Х	No (Stop)	No (Stop)					
Component: A-12 Flare Startup Event	1/20/21 12:44	1/20/21 12:48	0.07			X	113: Inspection and Maintenance 116: Well Raising	1/20/2021	х	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)	Yes (Go to Section 11)					
x Shutdown Event Malfunction Event Component: A-12 Flare				0.37	Flare was shutdown during generator hook-up and generator rotation test.		117: Gas Collection 118: Construction Activities 113: Inspection and Maintenance			Automatic (Go to Section 10)	1 to 3	Х	No (Stop)	No (Stop)					
x Startup Event Shutdown Event	1/20/21 13:06	1/20/21 13:12	0.10		Flare was inspected and restarted.	Ê	116: Well Raising 117: Gas Collection	1/20/2021	×	Manual (Go to Section 8)	Procedure 1 to 4		Yes (Go to Section 10)						
Malfunction Event Component: A-12 Flare						V	118: Construction Activities 113: Inspection and Maintenance			Automatic (Go to Section 10)	1 10 4	Х	No (Stop)	No (Stop)					
Startup Event x Shutdown Event	2/09/21 11:18	2/09/21 11:22	0.07			Ê	116: Well Raising 117: Gas Collection	2/9/2021	H	Manual (Go to Section 9)	Procedure No. 1 to 3		Yes (Go to Section 11)	<u> </u>					
Malfunction Event Component: A-12 Flare				0.40	Flare was shutdown during power surge. Flare was inspected and	X	118: Construction Activities 113: Inspection and Maintenance		X	Automatic (Go to Section 11)  Manual (Go to Section 9)			No (Stop) Yes (Go to Section 11)	X No (Stop) Yes (Go to Section 12)					
x Startup Event Shutdown Event	2/09/21 11:42	2/09/21 11:48	0.10		restarted.		116: Well Raising 117: Gas Collection	2/9/2021	_	Automatic (Go to Section 11)	Procedure No. 1 to 4	~	No (Stop)	No (Stop)					
Malfunction Event Component: A-12 Flare						X	118: Construction Activities 113: Inspection and Maintenance			Manual (Go to Section 11)		^	Yes (Go to Section 11)						
Startup Event x Shutdown Event	2/09/21 11:52	2/09/21 11:56	0.07		Flare was shutdown during startup sequence. Flare was inspected and restarted.	sequence. Flare was inspected and	sequence. Flare was inspected and	sequence. Flare was inspected and		116: Well Raising 117: Gas Collection	2/9/2021	x	Automatic (Go to Section 11)	Procedure No. 1 to 3		No (Stop)	X No (Stop)		
Malfunction Event Component: A-12 Flare				0.33					sequence. Flare was inspected and	sequence. Flare was inspected and	sequence. Flare was inspected and	sequence. Flare was inspected and	Х	118: Construction Activities 113: Inspection and Maintenance		X	Manual (Go to Section 9)		
x Startup Event Shutdown Event	2/09/21 12:12	2/09/21 12:18	0.10			116: Well Raising 2/9/2021 — 117: Gas Collection	Н	Automatic (Go to Section 11)	Procedure No. 1 to 4	Х	No (Stop)	No (Stop)							
Malfunction Event Component: A-12 Flare						Х	118: Construction Activities 113: Inspection and Maintenance		х	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)	<del>                                      </del>					
x Shutdown Event Malfunction Event	2/11/21 12:26	2/11/21 12:30	0.07		Flare was shutdown during annual			116: Well Raising 117: Gas Collection 118: Construction Activities	2/11/2021	Н	Automatic (Go to Section 10)	1 to 3	Х	No (Stop)	No (Stop)				
Component: A-12 Flare  x Startup Event							0.33	internal inspection by vendor. Flare wa inspected and restarted.	X	113: Inspection and Maintenance 116: Well Raising		х	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)	Yes (Go to Section 11)		
Shutdown Event Malfunction Event	2/11/21 12:46	2/11/21 12:52	0.10				117: Gas Collection 118: Construction Activities	2/11/2021		Automatic (Go to Section 10)	1 to 4 X	Х	No (Stop)	No (Stop)					
Component: A-12 Flare Startup Event	2/17/21 07:34	2/17/21 07:38	0.07			Х	113: Inspection and Maintenance 116: Well Raising	2/17/2021	х	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)	Yes (Go to Section 11)					
x Shutdown Event Malfunction Event	2/1//2107.34	2/1//21 07:36	0.07	12.37	Flare was shutdown during replacement of burner arms and crown.		117: Gas Collection 118: Construction Activities	2/1//2021		Automatic (Go to Section 10)	1 to 3	Х	No (Stop)	No (Stop)					
Component: A-12 Flare x Startup Event	2/17/21 19:56	2/17/21 20:02	0.10	12.01	Flare was inspected and restarted.	×	113: Inspection and Maintenance 116: Well Raising	2/17/2021	х	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)	Yes (Go to Section 11)					
Shutdown Event Malfunction Event						<u></u>	117: Gas Collection 118: Construction Activities			Automatic (Go to Section 10)	1 to 4	Х	No (Stop)	No (Stop)					
Component: A-12 Flare Startup Event	2/24/21 09:32	2/24/21 09:36	0.07			×	113: Inspection and Maintenance 116: Well Raising 117: Gas Collection	2/24/2021		Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)					
x Shutdown Event Malfunction Event Component: A-12 Flare				0.17	Flare was shutdown due to low temperature alarm. Flare was		117: Gas Collection 118: Construction Activities 113: Inspection and Maintenance		Х	Automatic (Go to Section 11)	1 to 3		No (Stop)	X No (Stop)					
x Startup Event Shutdown Event	2/24/21 09:42	2/24/21 09:48	0.10		inspected and restarted.	Ê	116: Well Raising	2/24/2021	×	Manual (Go to Section 9)	Procedure No. 1 to 4		Yes (Go to Section 11)	Yes (Go to Section 12)					
Malfunction Event Component: A-12 Flare						¥	118: Construction Activities 113: Inspection and Maintenance			Automatic (Go to Section 11)	1 10 4	Х	No (Stop)	No (Stop)					
Startup Event x Shutdown Event	3/05/21 09:36	3/05/21 09:40	0.07		Flare was shutdown during well and piping construction project. Flare was	Ê	116: Well Raising	3/5/2021	×	Manual (Go to Section 8)	Procedure 1 to 3		Yes (Go to Section 10)	Yes (Go to Section 11)					
Malfunction Event Component: A-12 Flare				3.83		118: Construction Activities 113: Inspection and Maintenance		Ļ	Automatic (Go to Section 10)		х	No (Stop)	No (Stop)						
x Startup Event Shutdown Event	3/05/21 13:26	3/05/21 13:32	0.10		inspected and restarted.	Е	116: Well Raising 117: Gas Collection	3/5/2021	х	Manual (Go to Section 8)  Automatic (Go to Section 10)	Procedure 1 to 4	¥	Yes (Go to Section 10)  No (Stop)	Yes (Go to Section 11)  No (Stop)					
Malfunction Event Component: A-12 Flare						X	118: Construction Activities 113: Inspection and Maintenance		l v	Manual (Go to Section 10)		^	Yes (Go to Section 10)	Yes (Go to Section 11)					
x Shutdown Event	4/27/21 08:32	4/27/21 08:36	0.07		Flare was shutdown during blower	Е	116: Well Raising 117: Gas Collection	4/27/2021	Ĥ	Automatic (Go to Section 10)	Procedure 1 to 3	x	No (Stop)	No (Stop)					
Malfunction Event Component: A-12 Flare				1.57	maintenance. Flare was inspected and restarted.	X	118: Construction Activities 113: Inspection and Maintenance	-	x	Manual (Go to Section 8)		^	Yes (Go to Section 10)	Yes (Go to Section 11)					
x Startup Event Shutdown Event	4/27/21 10:06	4/27/21 10:12	0.10		restated.	E	116: Well Raising 117: Gas Collection	4/27/2021	Ĥ	Automatic (Go to Section 10)	Procedure 1 to 4	х	No (Stop)	No (Stop)					
Malfunction Event			1				118: Construction Activities					^	140 (0109)	140 (Glop)					

KCRDF SSM

KCRDF January 1-June 30 - 2021 SAR

KIRBY CANYON RECYCLING & DISPOSAL FACILITY, San Jose, CA

		1 through June 30, 2021													
Identify Flare & Check Applicable Event	(1) Start of Event	(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?		Did Event Cause Any hission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Component: A-12 Flare Startup Event		10001101	0.07			X 113: Inspection and Maintenance 116: Well Raising	4/27/2021	х	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)		Yes (Go to Section 11)	
x Shutdown Event Malfunction Event	4/27/21 10:12	4/27/21 10:16	0.07		Flare was shutdown during blower	117: Gas Collection 118: Construction Activities	4/2//2021		Automatic (Go to Section 10)	1 to 3	х	No (Stop)		No (Stop)	
Component: A-12 Flare x Startup Event	-			0.20	maintenance. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising		х	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)		Yes (Go to Section 11)	
Shutdown Event Malfunction Event	4/27/21 10:24	4/27/21 10:30	0.10			117: Gas Collection 118: Construction Activities	4/27/2021		Automatic (Go to Section 10)	1 to 4	х	No (Stop)		No (Stop)	
Component: A-12 Flare Startup Event						X 113: Inspection and Maintenance			Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)		Yes (Go to Section 12)	
x Shutdown Event Malfunction Event	4/30/21 06:44	4/30/21 06:48	0.07		Flare callout system initiated automatic	117: Con Collection	4/30/2021	х	Automatic (Go to Section 11)	1 to 3		No (Stop)	х	No (Stop)	
Component: A-12 Flare x Startup Event				1.93	shutdown. Flare was inspected and restarted.	X 113: Inspection and Maintenance 116: Well Raising		х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)		Yes (Go to Section 12)	
Shutdown Event Malfunction Event	4/30/21 08:40	4/30/21 08:46	0.10			117: Gas Collection 118: Construction Activities	4/30/2021		Automatic (Go to Section 11)	1 to 4	х	No (Stop)		No (Stop)	
Component: A-12 Flare Startup Event		0.00.01.00.10				X   113: Inspection and Maintenance   116: Welt Raising   6/3/202   117: Gas Collection   118: Construction Activities   X   113: Inspection and Maintenance   116: Welt Raising   6/3/202   116: Welt Raising   6/3/202   117: Welt Raising   117: Welt Raisi	0.00.0004	П	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)		Yes (Go to Section 12)	
x Shutdown Event Malfunction Event	6/03/21 20:06	6/03/21 20:10	0.07		Flare was shutdown due to high		0/3/2021	х	Automatic (Go to Section 11)	1 to 3		No (Stop)	х	No (Stop)	
Component: A-12 Flare x Startup Event				0.43	vacuum alarm. Flare was inspected and restarted.		0.00.0004	х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)		Yes (Go to Section 12)	
Shutdown Event Malfunction Event	6/03/21 20:32	6/03/21 20:38	0.10			117: Gas Collection 118: Construction Activities	0/3/2021	П	Automatic (Go to Section 11)	1 to 4	х	No (Stop)		No (Stop)	
Component: A-12 Flare Startup Event	0.00.00.44.50	000011150	0.07			X 113: Inspection and Maintenance	6/8/2021	х	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)		Yes (Go to Section 11)	
x Shutdown Event Malfunction Event	6/08/21 11:52	6/08/21 11:56	0.07	0.23	Flare was shutdown during blower	117: Gas Collection 118: Construction Activities X 113: Inspection and Maintenance	0/0/2021		Automatic (Go to Section 10)	1 to 3	х	No (Stop)		No (Stop)	
Component: A-12 Flare x Startup Event	6/08/21 12:06	6/08/21 12:12	0.10	0.23	inspection. Flare was inspected and restarted.		6/8/2021	x	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)		Yes (Go to Section 11)	
Shutdown Event Malfunction Event	0/00/21 12:00	0/00/21 12.12	0.10				0/0/2021		Automatic (Go to Section 10)	1 to 4	х	No (Stop)		No (Stop)	
Component: A-12 Flare Startup Event	6/09/21 07:18	6/09/21 07:22	0.07			X 113: Inspection and Maintenance 116: Well Raising	6/9/2021	х	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)		Yes (Go to Section 11)	
x Shutdown Event Malfunction Event	0/09/21 07:16	0/09/21 07.22	0.07	2.07	Flare was shutdown due to high KOP level. Flare was inspected and	117: Gas Collection 118: Construction Activities	0/3/2021		Automatic (Go to Section 10)	1 to 3	х	No (Stop)		No (Stop)	
Component: A-12 Flare x Startup Event	6/09/21 09:22	6/09/21 09:28	0.10	2.07	restarted.	X 113: Inspection and Maintenance 116: Well Raising	6/9/2021	×	Manual (Go to Section 8)	Procedure		Yes (Go to Section 10)		Yes (Go to Section 11)	
Shutdown Event Malfunction Event	0/09/21 09:22	0/09/21 09.26	0.10			117: Gas Collection Automatic (Go to Section 10)	1 to 4	х	No (Stop)		No (Stop)				
Component: A-12 Flare Startup Event	6/15/21 23:38	6/15/21 23:42	0.07			X 113: Inspection and Maintenance 116: Well Raising	6/15/2021		Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)		Yes (Go to Section 12)	
x Shutdown Event Malfunction Event	0.1012120.00	0/10/2 / 20.42	5.07	10.93	Flare was shutdown due to high vacuum alarm. Flare was inspected and restarted.	117: Gas Collection 6/15.	3,13/2021	х	Automatic (Go to Section 11)	1 to 3		No (Stop)	х	No (Stop)	
Component: A-12 Flare x Startup Event	6/16/21 10:34	6/16/21 10:40	0.10	10.55		X 113: Inspection and Maintenance 116: Well Raising		х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)		Yes (Go to Section 12)	
Shutdown Event Malfunction Event	3/10/21 10:34	0/10/21 10:40	0.10			117: Gas Collection			Automatic (Go to Section 11)	1 to 4	х	No (Stop)		No (Stop)	

TOTAL DOWNTIME January 1 through June 30, 2021 (HOURS):	47.10
TOTAL PERMITTED GCCS DOWNTIME FOR 1 YEAR (HOURS):	240.0
TOTAL AVAILABLE RUNTIME January 1 through June 30, 2021 (HOURS):	4343.0
TOTAL RUNTIME January 1 through June 30, 2021 (HOURS):	4295.9
DUNTIME DEDCENTAGE July 1 through December 31, 2020 (HOLIDS)	00.00/

KCRDF SSM

KCRDF January 1-June 30 - 2021 SAR

#### (a) STANDARD OPERATING PROCEDURES

Shutdown

Procedure No. Procedure

Ensure that there are no unsafe conditions present, contact manager immediately Initiate shutdown sequence below by one or more of the following (Note date and time in Section 1 of form above)

Press Emergency Stop if necessary Close On/Off switch(es) or Push On/Off button(s) 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.

<u>Procedure</u>
Ensure that there are no unsafe conditions present
Ensure that the system is ready to start by one of the following:

Valves are in correct position

Levels, pressures, and temperatures are within normal starting range

Alarms are cleared

Power is on and available to control panel and ready to energize equipment.

Emergency stop is de-energized

Emergency step accession and date in section 1 of form above)

Observe that system achieves normal startup ranges for levels, pressures, and temperatures (Note time and date in Section 2 of form

#### Malfunction

3

EQUIPMENT	PURPOSE	MALFUNCTION EVENT	COMMON CAUSES	PROCEDURE NOTYPICAL RESPONSE ACTIONS
LFG Collection and Control Sys	l tem	12.241		
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 -Leaks at wellheads, valves, -Collection piping blockages -Problems due to settlement (e.g. pipe separation, deformation, development of low points)	Repair leaks or breaks in lines or wellheads     Repair leaks or breaks in lines or wellheads     Repair blockages in collection piping     Repair settlement in collection 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, carthquake, 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/repair electrical panel components 18. Check/repair transformer 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  LFG Control Device	Combusts LFG  Combusts LFG	Low temperature conditions at control device  Loss of Flame	-Problems with temperature - monitoring equipment -Problems/failure of- thermocouple and/or -Change of LFG flow -Change of LFG quality -Problems with air louvers -Problems with air/fuel controls -Change in atmospheric -Problems/failure of thermocouple -Loss/change of LFG flow -Loss/change of LFG quality	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  31. Check/repair temperature monitoring equipment  32. Check/repair thermocouple  33. Follow procedures for loss of flow/blower malfunction
Flow Monitoring/ Recording Device	Measures and records gas flow from collection system to control	Malfunctions of Flow Monitoring/Recording Device	-Loss/change of LPG quality -Problems with air/fuel controls -Problems/failure of flame sensor -Problems with temperature monitoring equipment -Problems with orifice plate, pitot tube, or other in-line flow measuring device -Problems with device controls and/or wiring -Problems with chart recorder	33. Check/adjust air/fuel controls 35. Check/adjust/repair flame sensor 36. Check/adjust/repair flame sensor 37. Check/adjust/repair flow measuring device and/or wiring 38. Check/repair chart recorder 39. Replace paper in chart recorder
Temperature Monitoring/	Monitors and records	Malfunctions of Temperature	-Problems with thermocouple	40. Check/adjust/repair thermocouple

KCRDF Facility A1812 KCRDF January 1-June 30- 2021 SAR

EQUIPMENT	PURPOSE	MALFUNCTION EVENT	COMMON CAUSES	PROCEDURE NOTYPICAL RESPONSE ACTIONS
LFG Collection and Control S	stem			
Recording Device	combustion temperature of enclosed combustion device	Monitoring/Recording Device	-Problems with device controls and/or wiring -Problems with chart recorder	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 fair insulation -Problems with pilot light system -Problems with air louvers -Problems with air fuel controllers -Problems with thermocouple -Problems with thermocouple -Problems with flame arrester -Alarmed malfunction conditions not covered above -Unalarmed conditions discovered during inspection not covered above	50. Refill propane supply 51. Check/repair pilot sparking system

<sup>(</sup>b) For each permit limit exceedance complete an "SSM Plan Departure Form". Notify BAAQMD verbally or by fax within 2 working days after commencing the actions that an event inconsistent with the SSM Plan and which resulted in an exceedance of an applicable emission permit has occured. Follow up in writing to the agency within 7 working days after the end of the event.

KCRDF Facility A1812 KCRDF January 1-June 30- 2021 SAR

# APPENDIX C WELLFIELD SSM LOG

#### Completed By: Markus Bernard/Rajan Phadnis

Kirby Canyon Recyc SSMP REPORT - Fr														
Identify Well & Check Applicable Event		(2) End of Event	(3) Duration	(4) Duration Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	Form		(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:54 Startup Event	12/28/20 15:30	12/28/20 15:32	0.03	, ,		X 113: Inspection and Maintenance	12/28/2020	Х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)	
X Shutdown Event Malfunction Event				406.5	Well offline for filling	117: Gas Collection 118: Construction Activities			Automatic (Go to Section 11)	1 to 3	×	No (Stop)	No (Stop)	
Well ID Number:54  X Startup Event	1/14/21 14:00	1/14/21 14:02	0.03			113: Inspection and Maintenance X 116: Well Raising	1/14/2021	Х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)	
Shutdown Event Malfunction Event						117: Gas Collection 118: Construction Activities			Automatic (Go to Section 11)	1 to 4	Х	No (Stop)	No (Stop)	
Well ID Number:131 Startup Event X Shutdown Event	6/22/21 14:00	6/22/21 14:02	0.03			113: Inspection and Maintenance 116: Well Raising X 117: Gas Collection	6/22/2021	X	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)	
Malfunction Event Well ID Number:131				1.5	Offline during repair and construction activities	X 117: Gas Collection X 118: Construction Activities 113: Inspection and Maintenance			Automatic (Go to Section 11)	1 to 3	Х	No (Stop)	No (Stop)	
X Startup Event Shutdown Event	6/22/21 15:30	6/22/21 15:32	0.03		Solici dollori dollarilo	116: Well Raising X 117: Gas Collection	6/22/2021	×	Manual (Go to Section 9)	Procedure No. 1 to 4		Yes (Go to Section 11)	Yes (Go to Section 12)	
Malfunction Event Well ID Number:118						X 118: Construction Activities			Automatic (Go to Section 11)	1 10 4	X	No (Stop)	No (Stop)	
Startup Event X Shutdown Event	6/22/21 08:00	6/22/21 08:02	0.03			116: Well Raising X 117: Gas Collection	6/22/2021	×	Manual (Go to Section 9)	Procedure No. 1 to 3		Yes (Go to Section 11)	Yes (Go to Section 12)	
Malfunction Event Well ID Number:118				2.0	Offline during repair and construction activities	X 118: Construction Activities 113: Inspection and Maintenance			Automatic (Go to Section 11)		×	No (Stop)	No (Stop)	
X Startup Event Shutdown Event	6/22/21 10:00	6/22/21 10:02	0.03			116: Well Raising X 117: Gas Collection	6/22/2021	<u> </u> ^	Manual (Go to Section 9)  Automatic (Go to Section 11)	Procedure No. 1 to 4	_	Yes (Go to Section 11)  No (Stop)	Yes (Go to Section 12) No (Stop)	
Malfunction Event Well ID Number:86						X 118: Construction Activities 113: Inspection and Maintenance	+	×	Manual (Go to Section 11)		^	Yes (Go to Section 11)	Yes (Go to Section 12)	
Startup Event X Shutdown Event	6/29/21 08:00	6/29/21 08:02	0.03			X 117: Gas Collection	6/29/2021	F	Automatic (Go to Section 11)	Procedure No. 1 to 3	×	No (Stop)	No (Stop)	
Malfunction Event Well ID Number:86				2.0	Offline during repair and construction activities	X 118: Construction Activities 113: Inspection and Maintenance	+	×	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)	
X Startup Event Shutdown Event	6/29/21 10:00	6/29/21 10:02	0.03			116: Well Raising  X 117: Gas Collection  X 118: Construction Activities	6/29/2021		Automatic (Go to Section 11)	1 to 4	X	No (Stop)	No (Stop)	
Malfunction Event Well ID Number:142 Startup Event						113: Inspection and Maintenance		х	Manual (Go to Section 9)	Procedure No.	Y	Yes (Go to Section 11)	Yes (Go to Section 12)	
X Shutdown Event Malfunction Event	6/30/21 12:30	6/30/21 12:32	0.03		Offline during repair and	116: Well Raising   6/30/203	6/30/2021		Automatic (Go to Section 11)	1 to 3	×	No (Stop)	No (Stop)	
Well ID Number:142  X Startup Event				1.5	construction activities	113: Inspection and Maintenance		х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)	
Shutdown Event Malfunction Event	6/30/21 14:00	6/30/21 14:02	0.03			X 117: Gas Collection X 118: Construction Activities	6/30/2021		Automatic (Go to Section 11)	1 to 1	х	No (Stop)	No (Stop)	
Well ID Number:37 Startup Event	3/04/21 14:30	3/04/21 14:32	0.03			113: Inspection and Maintenance 116: Well Raising	3/4/2021	х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)	
X Shutdown Event Malfunction Event	3/04/21 14.30	3/04/21 14.32	0.03	NA	Decommissioned per PTO Condition Number 1437 Part 6, as modified	hy 118: Construction Activities	3/4/2021		Automatic (Go to Section 11)	1 to 3	Х	No (Stop)	No (Stop)	
Well ID Number:37 Startup Event				14/3	Application Number 27673	113: Inspection and Maintenance 116: Well Raising	1/0/1900	х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)	
Shutdown Event Malfunction Event						117: Gas Collection 118: Construction Activities			Automatic (Go to Section 11)	1 to 4	Х	No (Stop)	No (Stop)	
Well ID Number:144 Startup Event	6/22/21 12:30	6/22/21 12:32	0.03			113: Inspection and Maintenance 116: Well Raising	6/22/2021	х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)	
X Shutdown Event Malfunction Event				NA	Decommissioned per PTO Conditi Number 1437 Part 6, as modified	hy T16. Construction Activities			Automatic (Go to Section 11)	1 to 3	Х	No (Stop)	No (Stop)	
Well ID Number:144 Startup Event Shutdown Event					Application Number 27673	113: Inspection and Maintenance 116: Well Raising 117: Gas Collection	1/0/1900	X	Manual (Go to Section 9)	Procedure No. 1 to 4		Yes (Go to Section 11)	Yes (Go to Section 12)	
Malfunction Event Well ID Number:83					<u> </u>	117: Gas Collection  118: Construction Activities  113: Inspection and Maintenance	1		Automatic (Go to Section 11)	1 (0 4	Х	No (Stop)	No (Stop)	
Startup Event X Shutdown Event	6/30/21 15:30	6/30/21 15:32	0.03			116: Well Raising	6/30/2021	×	Manual (Go to Section 9)	Procedure No. 1 to 3		Yes (Go to Section 11)	Yes (Go to Section 12)	
Malfunction Event Well ID Number:83				NA	Decommissioned per PTO Condition Number 1437 Part 6, as modified by	on 148. Construction Activities	-	1	Automatic (Go to Section 11)	1 10 0	X	No (Stop)	No (Stop)	
Startup Event Shutdown Event					Application Number 27673	116: Well Raising	1/0/1900	×	Manual (Go to Section 9)	Procedure No. 1 to 4		Yes (Go to Section 11)	Yes (Go to Section 12)	
Malfunction Event						118: Construction Activities			Automatic (Go to Section 11)	1 10 4	Х	No (Stop)	No (Stop)	

KCRDF Facility A1812

KCRDF Facility A1812

#### AFFECTED EQUIPMENT: Wellfield

Completed By: Markus Bernard/Rajan Phadnis

Kirby Canyon Booy	olina & Dienoes	I Escility Can	loco CA											
	Kirby Canyon Recycling & Disposal Facility, San Jose, CA SSMP REPORT - From January 1 2021 through June 30, 2021													
Identify Well & Check				(4) Duration	(5) Cause or Reason	(6) Applicable 8-34 Exemption	(7) Date	1	(8) Type of Event	(9) Procedures Used	(10	) Did Steps Taken Vary	(11) Did Event Cause Any	(12) Describe Emission Standard(s) Exceeded
Applicable Event	Date and Time	Date and Time	of Event (Hours)	Shutdown (Hours)	(5) Cause or Reason	(6) Applicable 8-34 Exemption	Completed	- (	(Startup and Shutdown Events Only)	(9) Procedures Used	,	From Section 9?	Emission Limit Exceedance	(12) Describe Emission Standard(s) Exceeded
Well ID Number:146 Startup Event	6/30/21 12:30	6/30/21 12:32	0.03			113: Inspection and Maintenance 116: Well Raising	6/30/2021	х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)	
X Shutdown Event Malfunction Event	0/30/21 12.30	6/30/21 12.32	0.03	NA	Decommissioned per PTO Condition Number 1437 Part 6, as modified by		0/30/2021		Automatic (Go to Section 11)	1 to 3	Х	No (Stop)	No (Stop)	
Well ID Number:146 Startup Event				14/4	Application Number 27673	113: Inspection and Maintenance 116: Well Raising	1/0/1900	х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)	
Shutdown Event Malfunction Event						117: Gas Collection 118: Construction Activities	17071300		Automatic (Go to Section 11)	1 to 4	Х	No (Stop)	No (Stop)	
Well ID Number:148 Startup Event	6/30/21 14:00	6/30/21 14:02	0.03			113: Inspection and Maintenance 116: Well Raising	6/30/2021	х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)	
X Shutdown Event Malfunction Event	0/30/21 14:00	0/30/21 14.02	0.00	NA	Decommissioned per PTO Condition Number 1437 Part 6, as modified by		0/30/2021		Automatic (Go to Section 11)	1 to 3	х	No (Stop)	No (Stop)	
Well ID Number:148 Startup Event				INA	Application Number 27673	113: Inspection and Maintenance 116: Well Raising	1/0/1900	х	Manual (Go to Section 9)	Procedure No.		Yes (Go to Section 11)	Yes (Go to Section 12)	
Shutdown Event Malfunction Event						117: Gas Collection 118: Construction Activities	17071300		Automatic (Go to Section 11)	1 to 4	х	No (Stop)	No (Stop)	

KCRDF Facility A1812

KCRDF Facility A1812

#### (a) STANDARD OPERATING PROCEDURES

#### Shutdown

Shutdown	
Procedure No.	<u>Procedure</u>
1	Ensure that there are 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)
	Press Emergency Stop if necessary
	Close On/Off switch(es) or Push On/Off button(s)
	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.	<u>Procedure</u>
1	Ensure that there are no unsafe conditions present
2	Ensure that the system is ready to start by one of the following:
	Valves are in correct position
	Levels, pressures, and temperatures are within normal starting range
	Alarms are cleared
	Power is on and available to control panel and ready to energize equipment.
	Emergency stop is de-energized
3	Initiate start sequence (Note time and date in section 1 of form above)
•	

Observe that system achieves normal startup ranges for levels, pressures, and temperatures (Note time and date in Section 2 of form above)

#### Malfunction

EQUIPMENT	PURPOSE	MALFUNCTION	COMMON CAUSES	PROCEDURE NOTYPICAL RESPONSE ACTIONS
EQUI MEM	T CHA GOL	EVENT	COMMON CRESES	The edder to the first has been entered
LFG Collection and Control Syst	tem			
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	Repair breakages in extraction piping     Clean flame arrestor
			-Blower failure (e.g., belt, motor, impeller, coupling, seizing, etc.) -Loss of power	Repair blockages in extraction piping     Verify automatic valve operation, compressed air/nitrogen supply
			-Extraction piping failure	5. Notify power utility, if appropriate
			-Condensate knock-out problems	6. Provide/utilize auxiliary power source, if necessary
			-Extraction piping blockages	Repair Settlement in Collection Piping     Repair Blower
				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 -Leaks at wellheads, valves, -Collection piping blockages	Repair leaks or breaks in lines or wellheads     Repair leaks or breaks in lines or wellheads     Repair blockages in collection piping
			-Problems due to settlement (e.g. pipe separation, deformation, development of low points)	15. Repair settlement in collection piping
				16. Re-install, repair, or replace piping
Blower or Other Gas Mover Equipment And	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	17. Check/reset breaker  18. Check/repair electrical panel components
			brown-out	
Control Device			-Interruption in service (e.g. blown service fuse)	19. Check/repair transformer
			-Electrical line failure	20. Check/repair motor starter
			-Breaker trip	21. Check/repair electrical line
			-Transformer failure	22. Test amperage to various equipment
			-Motor starter failure/trip	23. Contact electricity supplier
			-Overdraw of power -Problems in electrical panel	24. Contact/contract electrician 25.Provide auxiliary power (if necessary)
			-Damage to electrical equipment from on-site operations	22.110 nee duxinary power (it necessary)
LFG Control Device	Combusts LFG	Low temperature conditions at control device	-Problems with temperature - monitoring equipment	26. Check/repair temperature monitoring equipment
			-Problems/failure of -thermocouple and/or thermocouple wiring -Change of LFG flow	Check/repair thermocouple and/or wiring  28. Follow procedures for loss of flow/blower malfunction
			-Change of LFG flow -Change of LFG quality	28. Follow procedures for loss of flow/blower malfunction 29. Check/adjust louvers
			-Change of LFG quanty -Problems with air louvers	30. Check/adjust air/fuel controls
			-Problems with air/fuel controls	and the control
			-Change in atmospheric conditions	

KCRDF Facility A1812 KCRDF January 1-June 30- 2021 SAR

EQUIPMENT PURPOSE		MALFUNCTION EVENT	COMMON CAUSES	PROCEDURE NOTYPICAL RESPONSE ACTIONS
LFG Collection and Control Sy	ystem			
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 equipment	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

<sup>(</sup>b) For each permit limit exceedance complete an "SSM Plan Departure Form". Notify BAAQMD verbally or by fax within 2 working days after commencing the actions that an event inconsistent with the SSM Plan and which resulted in an exceedance of an applicable emission permit has occured. Follow up in writing to the agency within 7 working days after the end of the event.

KCRDF Facility A1812 KCRDF January 1-June 30- 2021 SAR

#### **APPENDIX D**

# FLARE TEMPERATURE DEVIATION/ INOPERATIVE MONITOR REPORTS

KIRBY CANYON F	RECYCLING & DI	SPOSAL FA	CILITY, San Jose, CA			BAAQMD Rule 34, Section 501					
TEMPERATURE DEVIATION/ INOPERATIVE MONITOR REPORT From January 1 2021 through June 30, 2021											
AFFECTED EQUIPMENT: A-12 Flare											
REPORT PREPARED BY: Rajan Phadnis DATE: July 1, 2021 TEMPERATURE SENSING DEVICE: Thermocouple MODEL: Thermo-Electric											
START DATE & TIME	END DATE & TIME	DURATION (hours)	TEMP (°F) / FLOW (SCFM)	CAUSE	EXPLANATION	ACTION TAKEN					
			No deviations, inoperative m	onitors, or missing data occurre	ed in January 2021						
			No deviations, inoperative mo	onitors, or missing data occurre	ed in February 2021						
			No deviations, inoperative n	nonitors, or missing data occur	red in March 2021						
			No deviations, inoperative	monitors, or missing data occu	rred in April 2021						
				monitors, or missing data occu							
6/9/2021 5:24	KOP pump shutdown causing The excess moisture in the gas Flare was shutdown, the liquid										
	The A-12 Flare combustion zone three-hour average temperature did not drop below the 1,549°F limit established in the March 4, 2020 and 1,514°F limit established in the February 25, 2021 Annual Source tests, pursuant to Title V Permit A1812 Condition 1437 Part 9, during the reporting period while the flare was in operation.										
	°F= degrees Fahrenheit scfm= standard cubic feet per minute										

KCRDF Plant No. 1812 KCRDF January 1-June 30- 2021 SAR

# APPENDIX E COVER INTEGRITY MONITORING REPORTS

**LOCATION:** Kirby Canyon Recycling and Disposal Facility

INSPECTION DATE: January 29, 2021 TECHNICIAN: Markus Bernard

	YES	NO	COMMENTS
		Х	
		Х	
		Х	
		Х	
		Х	
		Х	
	х		
		Х	
Date o	f Repair	Descri	ption of Repair (add soil, water)
	Date o		X X X X X X X X X

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

**LOCATION:** Kirby Canyon Recycling and Disposal Facility

INSPECTION DATE: February 25, 2021
TECHNICIAN: Markus Bernard

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

### REPAIR AREAS:

Location Description Note cell and near-by wells	Date of Repair	Description of Repair (add soil, water)
Note: Monthly cover integrity monitoring is performed pursua	 ant to BAAQMD Regulation 8-	34-501.4

**LOCATION:** Kirby Canyon Recycling and Disposal Facility

INSPECTION DATE: March 24, 2021 TECHNICIAN: Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		Х	
Dead vegetation		Х	
Erosion on cap system		Х	
Erosion on side slopes	Х		NW slope on 3/8/21
Ponding of water on cap		Х	
Surface cracking		Х	
Acceptable vegetation	Х		
Exposed waste		Х	

### REPAIR AREAS:

Location Description	Date of Repair	Description of Repair (add soil, water)			
Note cell and near-by wells		, , , , , , , , , , , , , , , , , , , ,			
Erosion seen at NW slope on 3/8/21	26-Mar-21	Added cover to slopes			
Note: Monthly cover integrity monitoring is performed pursuant to BAAQMD Regulation 8-34-501.4					

**LOCATION:** Kirby Canyon Recycling and Disposal Facility

INSPECTION DATE: April 26, 2021
TECHNICIAN: Markus Bernard

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

### REPAIR AREAS:

Location Description Note cell and near-by wells	Date of Repair	Description of Repair (add soil, water)
e: Monthly cover integrity monitoring is performed pursu		

KCRDF Facility A1812 KCRDF January 1-June 30- 2021 SAR

**LOCATION:** Kirby Canyon Recycling and Disposal Facility

**INSPECTION DATE:** May 26, 2021 **TECHNICIAN:** Markus Bernard

COVER & VEGETATION	YES	NO	COMMENTS
Settling of cap		Х	
Dead vegetation		Х	
Erosion on cap system		Х	
Erosion on side slopes	Х		Erosion on farthest NW slopes observed on 5/17/2021
Ponding of water on cap		Х	
Surface cracking		Х	
Acceptable vegetation	Х		
Exposed waste		Х	

### REPAIR AREAS:

Location Description  Note cell and near-by wells	Date of Repair	Description of Repair (add soil, water)
rosion on farthest NW slopes	5/25/21 & 5/26/21	Added cover to the areas on the slopes.

KCRDF Facility A1812 KCRDF January 1-June 30- 2021 SAR

**LOCATION:** Kirby Canyon Recycling and Disposal Facility

INSPECTION DATE: June 25, 2021
TECHNICIAN: Markus Bernard

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

### REPAIR AREAS:

Location Description  Note cell and near-by wells	Date of Repair	Description of Repair (add soil, water)
Note: Monthly cover integrity monitoring is performed	pursuant to BAAQMD Re	gulation 8-34-501.4

# APPENDIX F SURFACE EMISSIONS MONITORING REPORTS

172 98th Avenue • Oakland, California • 94568

July 15, 2021

Ms. Becky Azevedo Kirby Canyon Recycling & Disposal Facility 910 Coyote Creek Golf Drive San Jose, CA 95037.

Re: Second Quarter 2021 Surface Emissions and Component Leak Monitoring Report for the Kirby Canyon Recycling and Disposal Facility

Dear Ms. Azevedo:

This monitoring report for the "Kirby Canyon Recycling and Disposal Facility (KCRDF) Landfill" contains the results of the Second Quarter 2021 Integrated and Instantaneous Surface Emissions Monitoring (SEM) and Component Leak Monitoring. Initial surface emissions monitoring was performed by RES Environmental, Inc. (RES). Re-monitoring of surface emissions was conducted by KCRDF 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 Monitoring**

- Bay Area Air Quality Management District (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 Assembly Bill 32 (AB32) landfill methane rule (LMR).

### **KCRDF 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 KCRDF disposal area has been divided into one-hundred-and-fifty (150), approximately 50,000 square foot monitoring grids. 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 KCRDF 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.

### **Instantaneous Surface Emissions Monitoring**

The Instantaneous SEM was conducted using a Toxic Vapor Analyzer (TVA) 1000 flame ionization detector (FID), which was calibrated to 500 parts per million by volume (ppm<sub>v</sub>) methane, which meets or exceeds all guidelines set forth in the CCR Title 17 §95471(a) and NSPS. The FID was calibrated prior to use in accordance with the United States Environmental Protection Agency (USEPA) Method 21 requirements. The Instantaneous 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<sub>v</sub> (areas of concern) or 500 ppm<sub>v</sub> (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 remonitoring shall be conducted within 10 days of the initial exceedance.

- o If the re-monitoring event shows the exceedance is corrected, the location shall be re-monitored within 1 month of the initial exceedance.
- o If the 1-month re-monitoring event shows the location is still corrected, all remonitoring 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 $_{\rm v}$  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 3 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<sub>v</sub> were recorded, marked on the SEM map, and flagged for remediation. Any grids with integrated concentrations greater than 25 ppm<sub>v</sub> 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**

RES 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<sub>v</sub>. All leaks measured one half inch or less from the component exceeding the compliance limit of 500 ppm<sub>v</sub> 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<sub>v</sub> 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<sub>v</sub> must be corrected and re-monitored within 10 days of the initial exceedance.
- Leaks at or above 1000 ppm<sub>v</sub> must be corrected and re-monitored within 7 days of the initial exceedance.

### SECOND QUARTER 2021 SEM AND COMPONENT LEAK RESULTS

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

### **Instantaneous Surface Emissions Monitoring Results**

The Instantaneous surface monitoring was performed on May 17 and 18, 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<sub>v</sub>

There were 28 exceedances of 500 ppm<sub>v</sub> as methane detected on May 17 and 18, 2021. Corrective actions to initiate repairs of the exceedances were completed within five days for all locations (May 21, 2021).

### **Ten-Day Re-Monitoring Results**

The 10-day re-monitoring event was completed on May 27, 2021. During the first 10-day remonitoring event there was one exceedance of  $500 \text{ ppm}_v$  as methane detected on May 27, 2021. The second 10-day re-monitoring event was completed on June 4, 2021. All locations were observed at less than  $500 \text{ ppm}_v$ .

### One-Month Re-Monitoring Results

The 1-month re-monitoring event was completed on June 16, 2021. All locations were observed at less than  $500 \text{ ppm}_v$ .

### *Readings between 200 ppm<sub>v</sub> and 499 ppm<sub>v</sub> (Initial and Re-monitored)*

There were no readings between 200 ppm<sub>v</sub> and 499 ppm<sub>v</sub> as methane detected during the initial

Ms. Becky Azevedo Page 5

monitoring event on May 17 and 18, 2021. Pursuant to CCR Title 17 §95471(c), instantaneous surface emissions exceeding 200 ppm<sub>v</sub> but below 500 ppm<sub>v</sub> are required to be recorded.

### **Integrated Surface Emissions Monitoring Results**

The Integrated surface sampling (ISS) was performed on June 8 and 9, 2021, in accordance with the ACO and requirements outlined in CCR Title 17 §95469.

### Initial Monitoring Event Exceedances of 25 ppm<sub>v</sub>

There were no grids with exceedances of 25 ppm<sub>v</sub> as methane detected during the initial monitoring event on June 8 and 9, 2021.

The average methane concentration of each grid was recorded during the monitoring event per applicable requirements. See Attachment B, Integrated SEM 25 ppm<sub>v</sub> 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 May 18, 2021. No leaks greater than 500 ppm<sub>v</sub> were identified. 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 chart data is scanned and included in Attachment D.

### **Precipitation Requirements**

Per the KCRDF'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<sub>v</sub> in air for integrated sample analyses and 500 ppm<sub>v</sub> in air for instantaneous monitoring to comply with the requirements.

Ms. Becky Azevedo Page 6

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
- SEM Map

### **Attachment B – Integrated Surface Emission Monitoring Event Records**

- Monitoring Logs and Exceedances
- 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**: 2

PERFORMED BY: RES/WM

LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Flag Number	Grid Number	Date of Monitoring	Concentration of Emission (ppmv)	Comments
61	82	5/17/2021	700 ppm	Well 123
62	96	5/17/2021	1,000 ppm	Well 87
63	111	5/17/2021	507 ppm	Well 134
64	72	5/17/2021	1800 ppm	Well 151
65	66	5/17/2021	1000 ppm	Well 147
66	81	5/17/2021	2000 ppm	Well 129
67	60	5/17/2021	800 ppm	Black pipe
68	60	5/17/2021	600 ppm	Black pipe
21	97	5/17/2021	8000 ppm	Well 139
22	104	5/17/2021	3675 ppm	well 65
23	148	5/17/2021	654 ppm	well 99
24	80	5/17/2021	536 ppm	well 108
25	58	5/17/2021	915 ppm	Well 131
26	58	5/17/2021	677 ppm	Well LC 110
27	52	5/17/2021	3000 ppm	Surface
1	61	5/17/2021	1400 ppm	Well LC 143
2	89	5/17/2021	700 ppm	Well 126
3	83	5/17/2021	800 ppm	Well 82
4	90	5/17/2021	13000 ppm	Well 141
5	143	5/17/2021	1300 ppm	Well 70
6	116	5/17/2021	9700 ppm	Well 66
7	101	5/17/2021	700 ppm	Well 48
8	72	5/17/2021	1000 ppm	Surface
9	59	5/17/2021	1200 ppm	Well 118
10	53	5/17/2021	1300 ppm	Well 121
11	52	5/18/2021	2700 ppm	Surface
-	72	5/18/2021	700 ppm	Well 122
-	147	5/18/2021	3000 PPM	LR8

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

**2021 QUARTER**: 2

INITIAL MONITORING PERFORMED BY: RES/WM

FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard
LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Initial M	Ionitoring Eve	ent	Corrective	action within 5 days	1st 10-	-day Follo	w-Up	2nd 10	-day Follo	w-Up	1st 30	-day Follov	w-Up	
Flag	Monitoring	Field	Repair	Action taken to repair	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	_
Number	Date	Reading	Date	Exceedance	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	Comments
61	5/17/2021	700 ppm	5/21/2021	Added Soil / Water	5/27/2021	30 ppm					6/16/2021	4 ppm		Well 123
62	5/17/2021	1,000 ppm	5/21/2021	Added Soil / Water	5/27/2021	22 ppm					6/16/2021	23 ppm		Well 87
63	5/17/2021	507 ppm	5/21/2021	Added Soil / Water	5/27/2021	60 ppm					6/16/2021	30 ppm		Well 134
64	5/17/2021	1800 ppm	5/21/2021	Added Soil / Water	5/27/2021	30 ppm					6/16/2021	30 ppm		Well 151
65	5/17/2021	1000 ppm	5/21/2021	Added Soil / Water	5/27/2021	21 ppm					6/16/2021	25 ppm		Well 147
66	5/17/2021	2000 ppm	5/21/2021	Added Soil / Water	5/27/2021	80 ppm					6/16/2021	10 ppm		Well 129
67	5/17/2021	800 ppm	5/21/2021	Added Soil / Water	5/27/2021	15 ppm					6/16/2021	20 ppm		Black pipe
68	5/17/2021	600 ppm	5/21/2021	Added Soil / Water	5/27/2021	15ppm					6/16/2021	20 ppm		Black pipe
21	5/17/2021	8000 ppm	5/21/2021	Added Soil / Water	5/27/2021	18 ppm					6/16/2021	14 ppm		Well 139
22	5/17/2021	3675 ppm	5/21/2021	Added Soil / Water	5/27/2021	8 ppm					6/16/2021	0 ppm		well 65
23	5/17/2021	654 ppm	5/21/2021	Added Soil / Water	5/27/2021	0 ppm					6/16/2021	0 ppm		well 99
24	5/17/2021	536 ppm	5/21/2021	Added Soil / Water	5/27/2021	36 ppm					6/16/2021	35 ppm		well 108
25	5/17/2021	915 ppm	5/21/2021	Added Soil / Water	5/27/2021	22 ppm					6/16/2021	0 ppm		Well 131
26	5/17/2021	677 ppm	5/21/2021	Added Soil / Water	5/27/2021	38 ppm					6/16/2021	22 ppm		Well LC 110
27	5/17/2021	3000 ppm	5/21/2021	Added Soil / Water	5/27/2021	4 ppm					6/16/2021	0 ppm		Surface
1	5/17/2021	1400 ppm	5/21/2021	Added Soil / Water	5/27/2021	12 ppm					6/16/2021	0 ppm		Well LC 143
2	5/17/2021	700 ppm	5/21/2021	Added Soil / Water	5/27/2021	10 ppm					6/16/2021	16 ppm		Well 126
3	5/17/2021	800 ppm	5/21/2021	Added Soil / Water	5/27/2021	50 ppm					6/16/2021	0 ppm		Well 82
4	5/17/2021	13000 ppm	5/21/2021	Added Soil / Water	5/27/2021	34 ppm					6/16/2021	0 ppm		Well 141
5	5/17/2021	1300 ppm	5/21/2021	Added Soil / Water	5/27/2021	48 ppm					6/16/2021	23 ppm		Well 70
6	5/17/2021	9700 ppm	5/21/2021	Added Soil / Water	5/27/2021	25 ppm					6/16/2021	0 ppm		Well 66
7	5/17/2021	700 ppm	5/21/2021	Added Soil / Water	5/27/2021	23 ppm					6/16/2021	0 ppm		Well 48
8	5/17/2021	1000 ppm	5/21/2021	Added Soil / Water	5/27/2021	16 ppm					6/16/2021	0 ppm		Surface
9	5/17/2021	1200 ppm	5/21/2021	Added Soil / Water	5/27/2021	75 ppm					6/16/2021	31 ppm		Well 118
10	5/17/2021	1300 ppm	5/21/2021	Added Soil / Water	5/27/2021	20 ppm					6/16/2021	0 ppm		Well 121
11	5/17/2021	2700 ppm	5/21/2021	Added Soil / Water	5/27/2021	14 ppm					6/16/2021	5 ppm		Surface
-	5/18/2021	700 ppm	5/21/2021	Added Soil / Water	5/27/2021	30 ppm					6/16/2021	33 ppm		Well 122
-	5/18/2021	3000 ppm	5/21/2021	Added Silicone Seal	5/27/2021	-	2500 ppm	6/4/2021	80 ppm		6/16/2021	105 ppm		LR8

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

**2021 QUARTER**: 2

INITIAL MONITORING PERFORMED BY: RES/WM

FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard

LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Initial M	lonitoring Even	nt	1st Re-m	on Event -	10 Days	2nd Re-n	non 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
82	5/17/2021	700 ppm	5/27/2021	30 ppm					Well 123
96	5/17/2021	1,000 ppm	5/27/2021	22 ppm					Well 87
111	5/17/2021	507 ppm	5/27/2021	60 ppm					Well 134
72	5/17/2021	1800 ppm	5/27/2021	30 ppm					Well 151
66	5/17/2021	1000 ppm	5/27/2021	21 ppm					Well 147
81	5/17/2021	2000 ppm	5/27/2021	80 ppm					Well 129
60	5/17/2021	800 ppm	5/27/2021	15 ppm					Black pipe
60	5/17/2021	600 ppm	5/27/2021	15ppm					Black pipe
97	5/17/2021	8000 ppm	5/27/2021	18 ppm					Well 139
104	5/17/2021	3675 ppm	5/27/2021	8 ppm					well 65
148	5/17/2021	654 ppm	5/27/2021	0 ppm					well 99
80	5/17/2021	536 ppm	5/27/2021	36 ppm					well 108
58	5/17/2021	915 ppm	5/27/2021	22 ppm					Well 131
58	5/17/2021	677 ppm	5/27/2021	38 ppm					Well LC 110
52	5/17/2021	3000 ppm	5/27/2021	4 ppm					Surface
61	5/17/2021	1400 ppm	5/27/2021	12 ppm					Well LC 143
89	5/17/2021	700 ppm	5/27/2021	10 ppm					Well 126
83	5/17/2021	800 ppm	5/27/2021	50 ppm					Well 82
90	5/17/2021	13000 ppm	5/27/2021	34 ppm					Well 141
143	5/17/2021	1300 ppm	5/27/2021	48 ppm					Well 70
116	5/17/2021	9700 ppm	5/27/2021	25 ppm					Well 66
101	5/17/2021	700 ppm	5/27/2021	23 ppm					Well 48
72	5/17/2021	1000 ppm	5/27/2021	16 ppm					Surface
59	5/17/2021	1200 ppm	5/27/2021	75 ppm					Well 118
53	5/17/2021	1300 ppm	5/27/2021	20 ppm					Well 121
52	5/18/2021	2700 ppm	5/27/2021	14 ppm					Surface
72	5/18/2021	700 ppm	5/27/2021	30 ppm					Well 122
147	5/18/2021	3000 PPM	5/27/2021	-	2500 ppm	6/4/2021	80 ppm	_	LR8

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

**2021 QUARTER**: 2

INITIAL MONITORING PERFORMED BY: RES/WM
FOLLOW-UP MONITORING PERFORMED BY: NA

LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

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

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

2021 QUARTER: 2

INITIAL MONITORING PERFORMED BY: RES Wind Direction: W Wind Direction: W

FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard

LANDFILL NAME: Kirby Canyon LANDFILL Wind Speed: 2 MPH Wind Speed: 2 MPH Wind Speed: 2 MPH

Ini	tial Monitor	ring Event	Correc	tive action within 5 days	1st 10	-day Follow	-Up	2nd 10	Day Foll	ow up	1st 30	-day Follo	ow-Up	Comments
Flag	Monitoring	Field	Repair	Action taken to repair	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	Monitoring	No Exced.	Exced.	
Number	Date	Reading	Date	Exceedance	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	Date	<500 ppm	>500 ppm	
61	5/17/2021	700 ppm	5/21/2021	Added Soil / Water	5/27/2021	30 ppm					6/16/2021	4 ppm		Well 123
62	5/17/2021	1,000 ppm	5/21/2021	Added Soil / Water	5/27/2021	22 ppm					6/16/2021	23 ppm		Well 87
63	5/17/2021	507 ppm	5/21/2021	Added Soil / Water	5/27/2021	60 ppm					6/16/2021	30 ppm		Well 134
64	5/17/2021	1800 ppm	5/21/2021	Added Soil / Water	5/27/2021	30 ppm					6/16/2021	30 ppm		Well 151
65	5/17/2021	1000 ppm	5/21/2021	Added Soil / Water	5/27/2021	21 ppm					6/16/2021	25 ppm		Well 147
66	5/17/2021	2000 ppm	5/21/2021	Added Soil / Water	5/27/2021	80 ppm					6/16/2021	10 ppm		Well 129
67	5/17/2021	800 ppm	5/21/2021	Added Soil / Water	5/27/2021	15 ppm					6/16/2021	20 ppm		Black pipe
68	5/17/2021	600 ppm	5/21/2021	Added Soil / Water	5/27/2021	15ppm					6/16/2021	20 ppm		Black pipe
21	5/17/2021	8000 ppm	5/21/2021	Added Soil / Water	5/27/2021	18 ppm					6/16/2021	14 ppm		Well 139
22	5/17/2021	3675 ppm	5/21/2021	Added Soil / Water	5/27/2021	8 ppm					6/16/2021	0 ppm		well 65
23	5/17/2021	654 ppm	5/21/2021	Added Soil / Water	5/27/2021	0 ppm					6/16/2021	0 ppm		well 99
24	5/17/2021	536 ppm	5/21/2021	Added Soil / Water	5/27/2021	36 ppm					6/16/2021	35 ppm		well 108
25	5/17/2021	915 ppm	5/21/2021	Added Soil / Water	5/27/2021	22 ppm					6/16/2021	0 ppm		Well 131
26	5/17/2021	677 ppm	5/21/2021	Added Soil / Water	5/27/2021	38 ppm					6/16/2021	22 ppm		Well LC 110
27	5/17/2021	3000 ppm	5/21/2021	Added Soil / Water	5/27/2021	4 ppm					6/16/2021	0 ppm		Surface
1	5/17/2021	1400 ppm	5/21/2021	Added Soil / Water	5/27/2021	12 ppm					6/16/2021	0 ppm		Well LC 143
2	5/17/2021	700 ppm	5/21/2021	Added Soil / Water	5/27/2021	10 ppm					6/16/2021	16 ppm		Well 126
3	5/17/2021	800 ppm	5/21/2021	Added Soil / Water	5/27/2021	50 ppm					6/16/2021	0 ppm		Well 82
4	5/17/2021	13000 ppm	5/21/2021	Added Soil / Water	5/27/2021	34 ppm					6/16/2021	0 ppm		Well 141
5	5/17/2021	1300 ppm	5/21/2021	Added Soil / Water	5/27/2021	48 ppm					6/16/2021	23 ppm		Well 70
6	5/17/2021	9700 ppm	5/21/2021	Added Soil / Water	5/27/2021	25 ppm					6/16/2021	0 ppm		Well 66
7	5/17/2021	700 ppm	5/21/2021	Added Soil / Water	5/27/2021	23 ppm					6/16/2021	0 ppm		Well 48
8	5/17/2021	1000 ppm	5/21/2021	Added Soil / Water	5/27/2021	16 ppm					6/16/2021	0 ppm		Surface
9	5/17/2021	1200 ppm	5/21/2021	Added Soil / Water	5/27/2021	75 ppm					6/16/2021	31 ppm		Well 118
10	5/17/2021	1300 ppm	5/21/2021	Added Soil / Water	5/27/2021	20 ppm					6/16/2021	0 ppm		Well 121
11	5/17/2021	2700 ppm	5/21/2021	Added Soil / Water	5/27/2021	14 ppm					6/16/2021	5 ppm		Surface
-	5/18/2021	700 ppm	5/21/2021	Added Soil / Water	5/27/2021	30 ppm					6/16/2021	33 ppm		Well 122
-	5/18/2021	3000 ppm	5/21/2021	Added Silicone Seal	5/27/2021	-	2500 ppm	6/4/2021	80 ppm		6/16/2021	105 ppm		LR8

Personnel: LEISLWADE	-: :
JESSE MEUNING	Cal. Gas Exp. Date: <u>9-21-2</u>
Date: <u>S-17-2/</u> Instrument Used: <u>FVA1000</u> Grid	d Spacing:
Temperature: 68 Precip: 0 Upwind BG: 2.4	Downwind BG: 3.0

GRID ID	STAFF	START	STOP	тос	IIW	ND INFORM	MOITAN	REMARKS
	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	KEMARKS
37	LW	1130	1145	89	3	4	6	
41	OP	1170	1145	114	3	9	6	
42	73	1130	1145	70	3	4	6	
43	LW	1145	1200	82	7	Ý	6	
44	op	1145	1200	26	3	4	6	
47	77	1145	1200	94	3	9	6	
48	LW	1200	1215	71	Q	J	7	
49	90	1200	1215	54	2	J	J	
57	ナっ	1700	1215	3,000	2	3	3	SURFECE
55	LW	1215	1230	1300	3	5	3	W811721
54	op	1211	1270	62		5	)	
55	ブつ	17.15	1220	39	3.	5	3	
57	LW	1220	1245	13	3	5	6	
18	OP	1230	1245	915	J	5	6	WE11131
59	57	1230	1745	1200	3	5	6	UE11118
60	LU	1245	1300	800	à	J	6	BIRUIC PIET
61	OP	12.45	1700	1400	2	7	6	BIRULE PIPE
64	53	1243	1300	10	2	3	6	
65	LV	1000	1315	49	a	3	7	
66	go	1000	1315	1,000	2	3	7	well 147
67	50	1300	1315'	4)	2	3	7	
68	LV	1315	1330	フる	又	3	7	
70	op	1711	1300	19	2	3	7	
71	Jつ	1315	1330	<b>5</b> 9	2	3	7	
72	2w	1770	1345	1800	2	3	7	WE1151
73	00	1770	1745	60	2	J	7	
74	Jm	1330	1345	39	マ	J	7	
>5	(w	1345	1410	3/	2	3	4	
79	00	1345	1400	2/	2		1	
80	5	1341	1400	536	2	3	7	WE11108

Attach Calibration Sheet Attach site map showing grid ID

Personnel: LEIGHWAOT  OMERPINGULA	
JESSE MONNING	Cal. Gas Exp. Date: 9-21-21
Date: 5-17-2/ Instrument Used: Grid	Spacing: 2.5/
Temperature: 24 Precin: 0 Upwind BG: 2:4	Downwind BG: 7:0

INITIALS   TIME   TIME   PPM   AVG   MAX.   DIRECTION	GRID ID	STAFF	START	STOP	тос	WIN	ND INFORM	1ATION	REMARKS
82				1					KEMAKIS
83 To 1400 1411 800 2 3 7 WILLIES  86 (U 1415 1430 69 2 3 7 WILLIES  87 OP 1415 1430 58 2 3 7 WILLIES  88 To 1415 1430 58 2 3 7 WILLIES  88 To 1415 1430 58 2 3 7 WILLIES  89 (U 1430 1445 700 2 3 7 WILLIES  90 OP 1430 1445 13,000 2 3 7 WILLIES  90 OP 1445 1500 3> 2 3 7 WILLIES  90 OP 1445 1500 1,000 2 3 7 WILLIES  90 1445 1500 1,000 2 3 7 WILLIES  90 1445 1500 1,000 2 3 7 WILLIES  90 1500 1515 30 2 4 7 WILLIES  101 OP 1500 1515 30 2 4 7 WILLIES  102 OP 1505 1515 32 2 4 7 7 WILLIES  103 Do 1515 1530 25 2 4 7 7 WILLIES  104 U 1515 1530 25 2 4 7 7 WILLIES  105 OP 1515 1530 25 2 4 7 7 WILLIES  107 DO 1515 1530 25 2 4 7 7 WILLIES  108 Do 1515 1530 25 2 4 7 7 WILLIES  109 Do 1515 1545 50 7 2 4 8 WILLIES  110 OP 1520 1545 155 2 4 8 WILLIES  111 OP 1530 1545 155 2 4 8 WILLIES  112 OP 1600 1615 49 2 4 7 7 120 120 110 1 4 8 WILLIES  117 U 150 1515 1500 110 1 4 8 WILLIES  118 Jon 1545 1600 1605 49 2 4 7 7 120 120 120 120 120 120 120 120 120 120		CW	1400	1415	2,000	2	J	Ĵ	WE11129
83 7 1400 1411 800 2 3 7 w21182  86 (U 1415 1430 55		00		1415		ム	3	7	WE11123
8) OP 1411 1430 58 & 3 7 88		TM	1400	1415	800	2	7	Ž	
88 Jn 1415 1430 29 23 7 WEILIZE  89 CV 1430 1445 700 2 3 7 WEILIZE  90 00 1430 1445 13,000 2 3 7 WEILIZE  91 77 1430 1445 13,000 2 3 7 WEILIZE  92 00 1430 1445 1500 3 2 3 7 WEILIZE  93 CV 1445 1500 3 2 3 3 7 WEILIZE  94 77 HAS 1500 1500 2 3 7 WEILIZE  101 CV 1500 1515 700 2 4 7 WEILIZE  102 00 1500 1515 25 2 4 7 WEILES  103 70 1515 1500 25 2 4 7 WEILES  104 CV 1515 1500 25 2 4 7 WEILES  105 00 1515 1500 25 2 4 7 WEILES  106 70 1515 1500 25 2 4 7 WEILES  110 CV 1500 1545 125 1 4 8 WEILIZE  111 00 1500 1545 507 2 4 8 WEILIZE  111 00 1500 1545 175 174 8 WEILIZE  112 00 1540 1600 160 110 3 4 8 WEILIZE  119 CV 1600 1615 41 7 7 120 140 1400 110 3 4 8 WEILIZE  119 CV 1600 1615 41 7 7 120 140 1400 110 3 4 8 WEILIZE  119 CV 1600 1615 41 7 7 7 120 140 1400 110 3 4 8 WEILIZE  110 CV 1600 1615 41 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		LV	1415	1430	69	2	-	7	
89 ( 1/30 1/45 700 2 3 7 WE1126 90 00 1430 1445 13,000 d 3 7 WE1126 90 00 1430 1445 13,000 d 3 7 WE1126 91 77 1430 1445 41 41 2 3 7 91 00 1445 1500 3> 2 3 7 91 00 1445 1500 3> 2 3 7 91 00 1445 1500 1000 d 3 7 WE1139 101		op		1430	58	2	-	7	
90 09 1430 1445 13,000 d d d d d d d d d d d d d d d d d d		ナハ	1415	1930	29		3	7	
90 09 1430 1445 13,000 d d d d d d d d d d d d d d d d d d		(~	1430	1445	700	2	J	7	W\$11126
85 CV 1445 1500 3> 2 3 7  86 00 1445 1500 1,000 2 3 7  97 7 7 19 1445 1500 8,000 2 3 7  101 CV 1500 1515 700 2 7  102 00 1500 1515 25 2 4 7  103 72 1500 1515 25 2 4 7  104 CV 1515 1530 25 2 4 7  105 00 1515 1530 25 2 4 7  110 CV 1530 1545 125 2 4 7  111 00 1530 1545 125 2 4 8  111 00 1530 1545 125 2 4 8  111 00 1545 1500 1545 14 8  111 00 1545 1600 1600 1615 41 8  111 00 1500 1600 1615 41 2 4 7  120 00 1600 1615 41 2 4 7  110 CV 1545 1600 1615 41 2 4 7	90	OP			13,000	2	J	7	WE11 66148
97		77	1430	1441	41	Z	3	7	
97 JA 1445 1500 8,000 2 7 7 WE1139  161 LU 1500 INS 700 2 4 7 WE1139  102 OP 1500 ISIS SS & 4 7 7  103 JA 1500 ISIS SS & 4 7 7  104 LU ISIS 1500 3675 2 7 7 WE1165  105 OP 1515 1500 25 2 7 7 WE1165  109 JA 1515 1500 64 2 4 7  110 LU 1500 1545 125 2 7 8  111 OP 1500 1545 125 2 7 8  111 OP 1500 1545 174 2 9 8  112 JA 1500 1545 174 2 9 8  113 JA 1500 1600 1600 1600 110 3 4 8  119 LU 1600 1615 41 7  119 JA 1600 1615 41 7  119 JA 1600 1615 41 7		CW	1445	1500	<2>	2	3	7	
97 JA 1445 1500 8,000 2 7 7 WE1139  161 LU 1500 INS 700 2 4 7 WE1139  102 OP 1500 ISIS SS & 4 7 7  103 JA 1500 ISIS SS & 4 7 7  104 LU ISIS 1500 3675 2 7 7 WE1165  105 OP 1515 1500 25 2 7 7 WE1165  109 JA 1515 1500 64 2 4 7  110 LU 1500 1545 125 2 7 8  111 OP 1500 1545 125 2 7 8  111 OP 1500 1545 174 2 9 8  112 JA 1500 1545 174 2 9 8  113 JA 1500 1600 1600 1600 110 3 4 8  119 LU 1600 1615 41 7  119 JA 1600 1615 41 7  119 JA 1600 1615 41 7		Op	1445		1,000	7	J	7	W81187
161 (U 1500 1515 700 2 4 7 WE1148  102 OP 1500 1511 34 2 4 7  103 Jan 1500 1511 35 2 4 7  104 LU 1515 1530 3655 2 4 7  105 OP 1511 1530 25 2 4 7  110 U 1500 1545 125 2 4 7  111 OP 1500 1545 507 2 4 8  111 OP 1500 1545 174 2 4 8  112 Jan 1550 1545 174 2 4 8  113 OP 1540 1560 9700 3 4 8 WE1134  114 Jan 1540 1600 110 3 4 8  119 U 1800 1815 24 7  119 Jan 1600 1615 41 2 4 7  141 Jan 1600 165 15 2 4 7	タフ	ナハ	1945	1500	8,000	2	1	7	
103 Ja 1500 1515 3> 24 7  104 LU 1515 1530 36> 25 2 4 7  105 op 1515 1530 25 2 4 7  1089 Ja 1515 1530 64 2 4 7  110 LU 1530 1545 125 2 4 8  111 op 1530 1545 125 2 4 8  111 op 1530 1545 14 2 4 8  112 Ja 1530 1545 14 2 4 8  113 op 1540 1600 110 3 4 8  118 Ja 1540 1600 110 3 4 8  119 LU 1600 1615 41 2 4 7  141 Ja 1600 1615 45 2 4 7	161	2	1500	1515	700	2	/	7	WE1148
103 Jm 1500 1515 3> 24 7 welles  104 LU 1515 1500 3675 2 4 7 welles  105 op 1515 1500 25 2 4 7  110 LU 1550 1545 125 2 4 8  111 op 1500 1545 507 2 4 8 well34  112 Jm 1530 1545 14 2 4 8  116 LU 1545 1600 9700 3 4 8 well34  117 op 1545 1600 110 3 4 8  118 Jm 1545 1600 110 3 4 8  119 LU 1860 1615 4 2 4 7  141 Ja 1600 1615 4 2 4 7		00	1500		25	7	1		
105 op 1511 1500 25 2 4 7  109 70 1511 1500 25 2 4 7  110 2 1 1500 1545 125 2 4 8  111 op 1500 1545 14 8  111 op 1500 1545 14 8  111 op 1500 1545 14 8  111 op 1500 1500 3 4 8 WE:1134  117 op 1545 1600 110 3 4 8  118 50 1545 1600 110 3 4 8  119 20 op 1600 1615 49 2 4 7  141 72 1600 1615 15 24 7		70	1500	1511	3>	2	9	7	
109 J3 155 155 125 2 4 7  110 LV 1530 1545 125 2 4 8  111 OP 1530 1545 507 2 4 8  112 J3 1530 1545 14 2 4 8  113 J3 1530 1545 14 2 4 8  114 DP 1545 1600 110 3 4 8  118 J3 1545 1600 110 3 4 8  119 LV 1600 1615 41 2 4 7  110 OP 1600 1615 41 2 4 7		LW	1515	1530	3675	2	9	7	w81165
110 EV 1500 1545 125 2 4 8  111	105	OP	1511	1500	2.5	2	9	7	
111 op 1500 1545 507 2 4 8 WE:1134  112 Ja 1500 1545' 14 2 4 8  116 W 1545 1600 9700 3 4 8 WE:1134  117 op 1545 1600 110 3 4 8  118 Ja 1545 1600 110 3 4 8  119 W 1600 1615 4 2 4 7  141 Ja 1600 1615 15 24 7	109	ナク	1815	つくと	64	2	1.	7.	
112 Jn 1550 1545' 14 2 4 8 116 LV 1545 1600 9700 3 4 8 WENT 64 117 OP 1545 1600 110 3 4 8 118 3n 1545 1600 110 3 4 8 119 LV 1600 1615 74 2 4 7 120 OP 1600 1615 41 2 4 7	110	2	1500	1545	125	2	9	8	
112 JA 1530 1545' 14 2 4 8  116 LV 1545 1600 9700 3 4 8 WE1164  117 OP 1545 1600 110 3 4 8  118 50 1545 1600 110 3 4 8  119 LV 1600 1615 41 2 4 7  141 J3 1600 1615 15 2 4 7	111	op	1570		507	2	4		WE:1134
118 50 159 1600 110 3 4 8  119 LV 1600 1615 >4 2 4 7  120 00 1600 1615 41 2 4 7  141 53 1600 1615 15 2 4 7	112	33	1570	1545'	14	2	9.	8,	
118 50 159 1600 110 3 4 8  119 LV 1600 1615 >4 2 4 7  120 00 1600 1615 41 2 4 7  141 53 1600 1615 15 2 4 7	116	4		1600	9700	3	4	8	W1116E
118 30 154 1600 110 3 4 8 119 LV 1600 1615 >4 2 4 7 120 00 1600 1615 41 2 4 7 141 53 1600 1615 15 2 4 7	117	00	1542	1600	98	3	4	8	
119 W 1800 1815 74 2 4 7 120 00 1600 1615 41 2 4 7	118		1540	1600	110	1	Y	8	
120 0p 1600 1615 41 2 4 7 141 53 1600 1615 15 24 7	119	20	1600	16:5	>4	2	4	7	
141 53 1600 1615 15 24 7	120	Op	1600	1615	41	2		1 1	
142 2W 1615 1630 13 3 5 8 143 0p 1615 1630 1300 3 5 8 WYHEW >0		J3	1600	1615		2	4_	1/ 0	
147 00 1618 1630 1300 3 5 8 WELLEN 20		22	1615	1630		3		8	
	743	90	1615	1830		3	3	8	WYIIEWJO
144 53 1615 1630 39 35 8	144	53	1615	1830	39	2	5		

Attach Calibration Sheet

Attach site map showing grid ID

Page 2 of 3

Personnel: Leighwhot	
gesse menning	Cal. Gas Exp. Date: 9-21-21
Date: 8-17-21 Instrument Used: 4VALOVO	Grid Spacing:2s/
Temperature: >\forall Precip: 0 Upwind BG:	2.9 Downwind BG: 3-0

GRID ID	STAFF	START	STOP	тос	WIN	ND INFORM	MATION	DEMARKS		
GRID ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	REMARKS		
145	W	1630	1645	21	3	5	8			
146	op	1670	1645	34	1	5	8			
14>	70	1630	1645	28	j	5	8			
148	LW	1645	1700	654	4	6	8	WE1199		
149	go	1645	1700	17	4	6	8			
150	JB	1645	1700	26	9	6	8			
				1)						
			ø							
			33							
				V						

Attach Calibration Sheet Attach site map showing grid ID

3							_ Cal. Gas	Evn Data	
			_						
ate: <u></u>	-17-21	Instrur	nent Used	l:		Gri	d Spacing:		
emperat	ure:	Pred	cip:	Up	wind BG:	-	Downv	vind BG:	
GRID ID	CTAFE	CTART	CTOP.	700	MIN	ID INFORM	MATION		
GRID ID	STAFF INITIALS	START TIME	STOP TIME	TOC PPM	AVG MAX. SPEED SPEED		DIRECTION 16 POINT	, REI	MARKS
76					0.225	3, 225	1010111	Active-	tha?
フフ								1	
84									
91 72								-	
98							Ų.		
75									
06									
0)									
113								1	
2)									
29								•	,
2							-	NOWASKE	inpla
3									<u> </u>
4									<u> </u>
5									
6									
7									
9									
10									
11									
12									
13									
14									
15									
16									

Attach Calibration Sheet Attach site map showing grid ID

Page \_\_\_\_\_\_ of \_\_\_\_\_\_

Personnel: LEISHWADE	
	Cal. Gas Exp. Date:
Date: Instrument Used:	Grid Spacing:
Temperature: Precip: Upwind BG	G: Downwind BG:

GRID ID	STAFF	START	STOP	тос	WIN	ND INFORM	1ATION	RFI	MARKS
	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	1721	
19								1	
20									
21									
22									
27									
24									i
25									
26									
27									
20									
29									
フロ									
3/									
32									
37									
34									
2.5									
36									
38									
39									
40			,						
45									
46									
50									
51									
56									
62									
63									
69									
78									

Attach Calibration Sheet Attach site map showing grid ID

Page Z of 🔾

ersonnel:	LEIGHL	nor						
5							_ Cal. Ga	s Exp. Date:
Date:	-17-21	Instru	ment Use	ed:		Gri	d Spacing	
Temperat	ture:	Pre	cip:	Up	wind BG	·,	Down	wind BG:
GRID ID	STAFF	START	STOP	тос	WII	ND INFOR	MATION	REMARKS
	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
85								
93				1				
100								
114				-	1			
115								-
122								
123							**	<del>                                     </del>
130								
131								5
					-			
	-				-			
V.								

Attach Calibration Sheet Attach site map showing grid ID

Page \_\_\_\_\_ of \_\_\_\_\_

Personnel: LEISKWADE	
TESSE MEANING	Cal. Gas Exp. Date: <u>\$\int_2/-2_1\)</u>
Date: 5-18-21 Instrument Used: +VA 1000	Grid Spacing: 251
Temperature: _5/ Precip: Upwind BG: _2.	9 Downwind BG: 3,0

GRID ID	STAFF	START	STOP	тос	NIM	ND INFOR	MATION	REMARKS
	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	KZI II II K
12.4	14	0530	0545	19	1	1	12	
125	OP	0530	0545	24	i	2	12	
126	ブヘ	0530	0545	16		2	12	
127	4	0545	0600	16 31	1	2	16	
128	op	0545	0600	34	1	2	176	
132	73	0545	0800	19	1	2	16	
173	6 W	0600	0615	24	1	2	16	
139	op Ta	0600	0615	19	1	4	16	
177	ぴつ	0600	0615	4/	1	2	16	
156	LW	0615	0630	3>	l	2	16	
127	OP	0615	0670	24		2	16	
738	5つ	6615	0630	11	1	2	16	
139	LW	0630	0645	19	à	J	12	
140	ŷρ	0670	0645	26	2	. 3	12	
	(0)							

Attach Calibration Sheet Attach site map showing grid ID

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# 383

# Orange Flag Landfill Surface Emissions Monitoring Exceedances and Monitoring Log

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	9	7		
-		1	!	
		0		
	1	7		

	Quarter / Year:	240,202	2]										Page , of 2 Pages
l echnician		28156 VADE	21.0										The second secon
Calibration	Calibration Standard	500000											
	Initial N	Initial Monitoring Event		First Re-M	First Re-Monitoring Event -	- 10 Days	Second Re-	Second Re-Monitoring Event - 10 Days	nt - 10 Days	30-Day	30-Day Follow-up Monitoring	nitoring	Comments
Flag	Grid	Field Reading	Date	Date	No Excd.		Date	No Excd.	Excd.	Date	No Excd.	Excd.	
	Number	(mdd)	Monitored	Monitored	<500 ppm	>500 ppm	Monitored	~200 ppm	>500 ppm	Monitored	wdd 00€>	>500 ppm	
190	28	200	12-61-5										WEIT 123
770	96	1,000											WEI/87
200	111	587											WE11134
19-Q	72	0081											WE11151
59-0	20	1,000											WE11147
99.0		7.400											WE11 129
294		200											BleyCpy0 5
\$ 6V		007											ast Colore
(2 #	2	8,000											WEI 137
774	104	3675											WE1/65
\$70	341	656											WE1199
576	25	526											NAN 108
A-25	100	516											WE11131
97 0	is	677											Well 20/10
0.27	どろ	3,000											SCAPPLE
<u>_</u>	19	1400											200143
2 ⊕	80	200											WE11126
4	28	008											(2 \$1/ 82
7 b	00	13,000											W#11 60141
ψ,	143	1300	_										well EU >0
<b>9</b>	116	9700											WE1166
· ·	101	780											WE1148
<b>₽</b>	25	0001											Sakkgie
d Q	59	1200											21/1/20
9/-0	5.3	1300	>										WE1/12)

# 383

# Orange Flag Landfill Surface Emissions Monitoring Exceedances and Monitoring Log

Site: KINBY

	rage 7 of 2 Pc			Comments			5. 8 Kn. 12	7487500																						
				nitorina	Excd	>500 ppm	200																							
				30-Day Follow-up Monitoring	No Excd.	<500 ppm																								
				30-Day	Date	Monitored																								
				1-10 Days	Excd.	>500 ppm																				10				
				fonitoring Even	Date No Excd. Excd.	<500 ppm																		5						
				Second Re-N	Date	Monitored																								
				. 10 Days	Excd.	>500 ppm																								
				First Re-Monitoring Event - 10 Days	No Excd.	<500 ppm																								
				First Re-Mo	Date	Monitored																								
	t				Date	Monitored	p-11-5																							
LN0 2021	LE11 4110	4V4 1060	50300	Initial Monitoring Event	Field Reading		2700																							
			Standard:	MO	-	ē	52 25																							
Auditer rear.	Technician:	Instrument:	Calibration Standard:	2011	7	per		Ö	ó	ó	ó	ó	Ö	Ö	0	Ö	Ó	0	- 0	-0	0	·0	ò	o o	d o	d d	d 6	<u>.</u>	ا خ ا د	_ 

SITE: KIRBY

DATE:

PENETRATION ID	GRID NUMBER	INITIAL (PPM)	
UE11145	53	1.67	
Loare	5 4		
NONE	55		
Avajz	57		
MEII /18	58	10107 915	
WEI1 118	59 <b>59</b>	12,00. 58	
BIC P.p.	60	800	
WEIL & 9	60	154	
WEII 65143	61	14.00-	
LR-11	64	4.24	

DATE: 2 L D Q400 /22 202/

SITE: KIRBY

PENETRATION ID	GRID NUMBER	INITIAL (PPM)	
LOAE	37		
Noar	41		
Nuclie	42		
MORE	43		
NOUE	44		39
WEII Lc 1/2	47	5:40	
WE11148 WE11149	48	,54	
NOUS	49 -		
WEN 105	52	6.0 9.10	
WE11121	52	1300.	

SITE: KRBY

DATE:

PENETRATION ID	GRID NUMBER	INITIAL (PPM)	# 1
Nouz	65		
AUUE	66		
NOAK	67		
WELL SI	68	1- 51 <b>2</b>	
aoai=	TO		
WE1109	7/	58	
WE11147 WE11122	72	1,000	
WEILIZZ	73	60	
WE11 124	74	. 2.15	
WEIL 183	75	.39	

SITE: KIRBY

DATE:

PENETRATION ID	GRID NUMBER	INITIAL (PPM)		ty to the left to
NONE	79			
ME11130	80	11.34		
WE11108	80	B36		
2610	80	2714		
WEI! 15/	81	1800		
WEI 57	82	.50		
Ubil 173	82			
W+1/12		700 71		
WEI/ 37	83	43		
WE1114	86	26.21		
WE11119	86	.69		
WEI1 129	87	2,000		
WE11152		17		
WEIL 86	88	29		
W#11126	89	700.		
WE11 82	89	1,800 ,		
WEILD S	89	101.00		
Well 141	90	13,000		
			1	

SITE: /Linsy

DATE: \_\_\_\_\_

PENETRATION ID	GRID NUMBER	INITIAL (PPM)	
NOUE	94		
MORE	95		
MONE	96		
Well 139	97	8000	
WEILSY	97	3.28	
WEI148	10/	700:	
EW-76	102	54 19	
EW89	107	19	
Weil 137	103	37	
WEIL 65	104	3475	
LROY	105	2/	
ware	109		

SITE: KINGY

DATE:

PENETRATION ID	GRID NUMBER	INITIAL (PPM)	e i a si a si
EW 91	110	47 125	
Le11 93	110	125	
well 34	11/	.507	
WELLIYO	112	3,75	
WEIL 66	116	9700.	
EW99	117	98	
W=1192 EW74	/18 118	15	
WEIL 185	119	jio	
wax	/20		
NOVE	124		
Logie	125		
w81195	126	1.6	

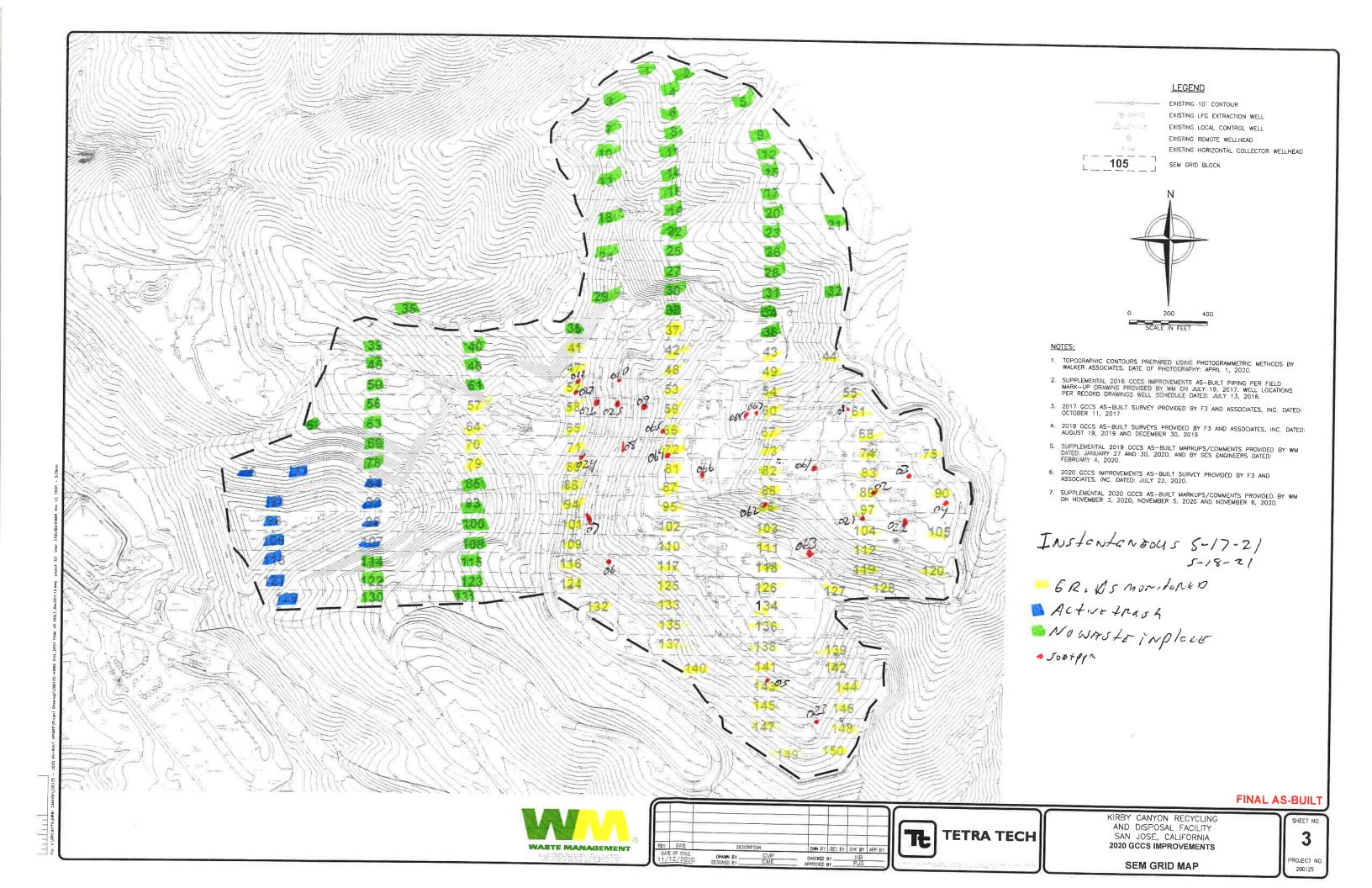
SITE: //CABy

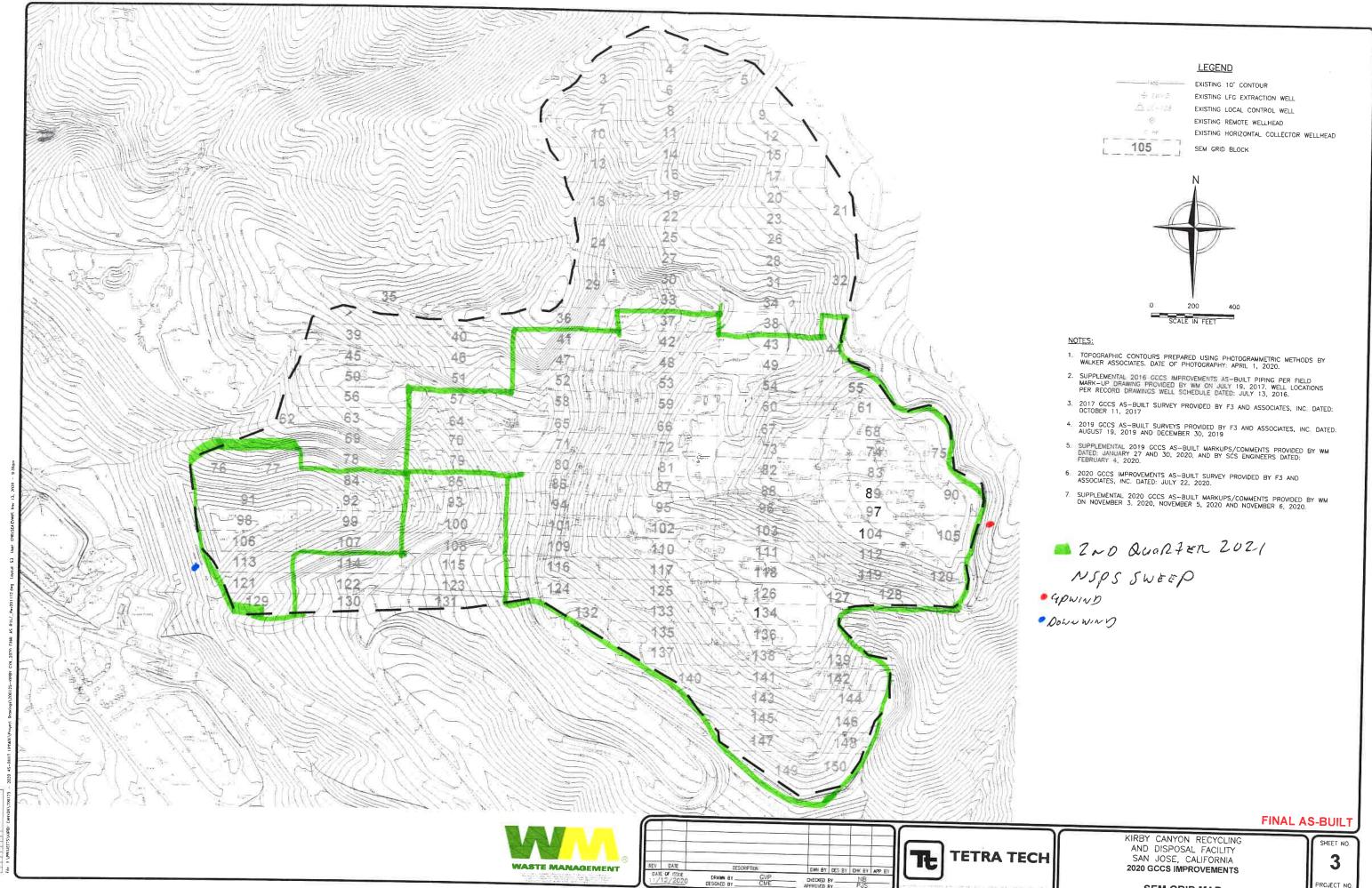
DATE: \_\_\_\_\_

PENETRATION ID	GRID NUMBER	INITIAL (PPM)	* *
WELL 101	127	31	
AORE	128		
NOAE	132		
EN94	133	.24	
NOAE	134		
NOAE	135		
241197	136	40	
NOAE	137		
Wtil 88 EW90	138	5.46 7.20	
EV 103	139	125.	
EW 102 WOWE	140	3.31	
AVAE	14/		
W 87172	142	4.92	

DATE: \_\_\_\_

PENETRATION ID	GRID NUMBER	INITIAL (PPM)	190 A	20 2 0 48 <u></u>
W\$1170	143	,8.		
EW71	744	5.80		
. Nom=	145	Ē.		
wome	146	· / · ·		
NOAIE	147			
WE1162 WE1199	148	4.70		
ava 13	149			
NOUE	150			
		,		





PROJECT NO. 200125

SEM GRID MAP

#### Attachment B

Integrated Surface Emission Monitoring Event Records

## KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

Personnel: ZEISGWADE	DWISh ZAADERSON	
NICIOBANGS		Cal. Gas Exp. Date: 9-21-2
Date: <u>6-9-2/</u> Instrument Us	sed: <u>fur 1000</u> G	Grid Spacing: 25/
Temperature: 54 Precip:	O Upwind BG: Z-7	Downwind BG: 2-6

GRID	STAFF	START	STOP	тос	WIN	ND INFOR	RMATION	REMARKS
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	KEMAKAS
5"5"	22	0540	0605	6.21	I	2	1	
61	op	0540	0605	5.90	l [	2	#	
68	NO	0540	0608	6-17		7	12	
74	DA	0540	0600	5.74	1	2	12	
75	LW	0605	0630	6-18	1	2	1)	
83	90	0605	0630	5-77		2	17	
90	n D	0605	0630	4.61		7	12	
89	DA	0605	0630	7.20	l	2	12	
9>	LW	0620	0655	5.44		2	11	
104	Op	0630	0655	6.39	j	2	14	
105	NO	0670	0651	5-03		7	17	
101	DR (W	0630	0855	6.81		L	12	
102		0655	6720	8.25	7	2	12	
103	00	065-	0720	7.75	ĺ	2	14	
109	do	0655	0720	5.82		7	12	
110	PA	0655	0720	5.50	1	2	12	
111	12	0720	0745	4.78	1	2	12	
112	00	6720	0742	4-61		7	1	
116	ap	0)20	0745	5-19		5	12	
617	PA	0720	0745	4-60		L	12	
118	LV	0740	0810	8-18	1	×	11	
119	00	0745	0810	4.71		2	12	
120	io	0745	0810	5.15		7	12	
124	OA	0745	0810	4.38		2	12	
125	LW	0810	0835	4.51	ĺ	2	12	
126	go	0810	0825	4-12		7	4	
127	NO	0810	0875	5-69		2	12	
128	DA	0810	0875	5-82	1	2	12	
132	LW	0835	2900	4.80	-1	2	12	
137	OND	0835	0900	5.17	l	L	12	

Attach Calibration Sheet Attach site map showing grid ID

Page \_\_\_\_\_ of \_\_\_\_\_\_

## KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LES LWADE	Dwg 2 & ADDENSON	
NICK Banks		Cal. Gas Exp. Date: 9-21-21
Date: 6-9-2/ Instrument Use	ed: <u> </u>	Spacing: 25'
Temperature: 62 Precip: 0	2 Unwind BG: 7.0	Downwind BC: 216

GRID	STAFF	START	STOP	тос	MIN	ND INFOR	MATION	REMARKS
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	KENAKIS
134	NB	6877	0900	4.12	1	2	12	
135	OA	0871	0900	5.30	1.	2	12	
036	12	0900	0925	5-16	9	2	12	
137	00	0810	0925	8-77	1	2	12	
128	op NB	0900	0975	5-02		2	12	
139	DA	0900	0925	8-60	l	2	12	
140	LV	0925	0950	4.28	1	d	12	
14/	00	0925	0950	5.31		2	1	
182	ND	0825	0950	5-76		4	12	
143	DA	0525	0550	4-98		L	12	
144	CW	0950	1015	5-32		2	D	
145	ap	0910	1015	4.75		ما	P	
146		0950	1015	5-60		7	D	
14)	- DA	0850	1015	3-81	l	2	10	
148	LW	1415	1040	9-25		2	14	
149	op	lois	1040	4-16		7	12	
150	ab	1015	1040	3-7/		d	12	

Attach Calibration Sheet
Attach site map showing grid ID

Page 2 of 2

### KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEISHWNOV	DWIGHT ANDRESO	<del>~</del>	
- NICH BENKS		Cal. Gas	Exp. Date: <u> </u>
Date: <u>6-8-2</u> Instrument Use	ed: +VA1000	Grid Spacing:	251
Temperature: 68 Precip: 0	Upwind BG:	Z.O Downw	ind BG: 7-6

GRID	STAFF	START	STOP	тос	WII	ND INFO	RMATION	REMARKS
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	KEMARKS
57	LW	1000	1025	4.71	2	3	3	
64	OP	1000	1025	5.10	2	7	0	
70	NB	1000	1025	4.38	L	3	C	
79	DA	1010	1025	4-77	2	3	3	
4/	lu	1025	1050	18-60	2	3	3	
37	00	1025	1050	16-25	2	3	3	
42	WD	1025	1050	17.08	7	3	2	
43	DA	1625	1050	14-11	2	3	3	
44	W	1050	1115	7.36	2	3	3	
47	00	1050	1115	19.22	2	1,1	3	
68	arb	1050	1115	21.60	7	J	3	
49	DA	1850	1115	17.54	2	3	3	
52	62/	1145	1210	15.41	2	3	7	
53	- OP	1145	1210	22-77	4	J	1	
54	NB	1175	1210	20.48	4	3	7	
58	22	1145	1210	17.60	2	1	7	
59	62	1210	1235	21.96	2	3	6	
60	00	1210	1235	17.30	2	]	6	
65	NO	1210	1271	12-07	2	3	لم	
66	DA	1210	1275	17-39	ス	3	6	
67	LW	1235	1700	15.45	2	J	ን	
71	OP	123/	1300	16.60	2	]	7	
72	NO	1231	1300	14.72	7	7	j	
73	DA	122	1300	16.85	2	3	7	
80	LW	1300	1325	9.54	2	J	7	
81	00	1300	1325	11.49	2	3	7	
82	NB	1300	1725	13-60	2	2	Ì	
86	DA	1360	1325	9-57	2	S	7	
8 >	LW	1325	1750	7.25	义	3	7	
88	0/0	1325	1350	6.41	2	9	7	

Attach Calibration Sheet

Attach site map showing grid ID

Page \_\_\_\_\_ of \_\_\_\_\_

## KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEIShWADE	pwish LANDENSON	<i>J</i>
NICL BENCS		Cal. Gas Exp. Date: <i>9-21-21</i>
Date: 6-8-2/ Instrument	Used: <u>+v A 1000</u>	Grid Spacing:
Temperature: 69 Precip:	O Upwind BG: 2	Downwind BG: 7 /

GRID	STAFF	START	STOP	тос	WIN	ID INFOR	MATION	REMARKS
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	KEMAKKS
94	NB	1325	1350	6.58	2	1	<sup>'</sup> 2	
95	08	1725	1350	5.94	2	3	7	
96	LW	1350	1415	7.22	2	3	7	
							,	
. Fi								
	_							
ttach Calib								

Attach Calibration Sheet Attach site map showing grid ID

Page 2 of 2

## KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

							Cal. Gas Ex	rp. Date:
ate: <u>6-</u>	8-21	Instrume	nt Used: _			Grid S	Spacing: _	
emperature: Precip: Upwind BG:								d BG:
	STAFF	START	STOP	тос	WIN	ID INFOR	MATION	REMARKS
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	1357,73335
>6								Active-tR
>>								1
84						1		
91								
92								
98			Ţ.					
79								
106								
10>								
113								
2/								
29								V
2								NOWASLEIND
3	-							
					-			
5	-							
6	-							
7								
8								
5	1							
10								
11							=	
12				-				
13								
14								
15								
16				-				

Attach Calibration Sheet Attach site map showing grid ID

18

## KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

102		
		Cal. Gas Exp. Date:
_ Instrument Used: _		Grid Spacing:
Precip:	Upwind BG:	Downwind BG:
	Instrument Used:	Instrument Used:

GRID	STAFF	START	STOP	тос	WIN	ID INFOR	MATION	REMARKS	
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	KLMAKKS	
19								1	
20									
21									
22					1				
ZJ									
24									
25									
26									
27									
28									
29									
30									
31									
32	-								
フォ									
34									
35									
36									
38									
38									
40									
45									
46									
50									
51									
56				**					
62									
69								1	
>8					1			4	

Attach Calibration Sheet Attach site map showing grid ID

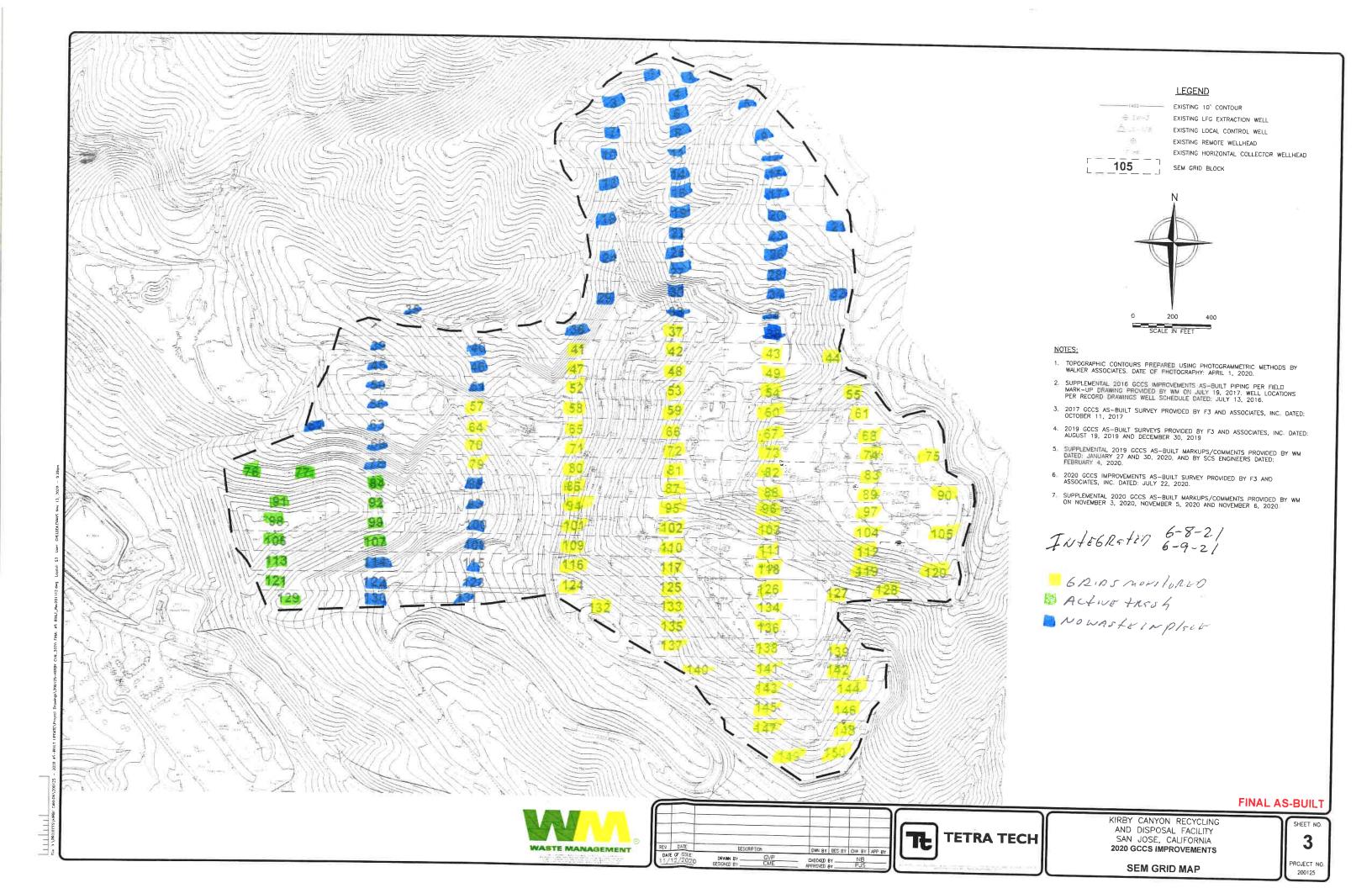
Page  $\frac{2}{3}$  of  $\frac{3}{3}$ 

### KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

=							Cal. Gas Exp	. Date:
ite: <u>6</u> -	-8-21	Instrume	ent Used:			_ Grid S	Spacing:	
mperati	ure:	Precip	); <u> </u>	_ Upwind	BG:		Downwind	BG:
GRID STAFF	STAFF	START	STOP	тос	WIN	ND INFOR	RMATION	REMARKS
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	
85								1
93								
100					1			
108								
14								
15							3	
22								
27								
30								
31								7
				V				
	-							
						=====		
				S:				

Attach Calibration Sheet Attach site map showing grid ID

Page 3 of 3



#### **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:** 2

INITIAL MONITORING PERFORMED BY: RES/WM FOLLOW-UP MONITORING PERFORMED BY: NA

LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Location	I	nitial Monitorin	ng	Correct	tive Action	10-Day Remonitoring			
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech	
Flare Station	05/18/21	ND	Leigh wade	-	-	-	-	-	

ND= No Exceedances

#### Table C.2

#### BAAQMD Component Leak Monitoring Summary of Component Leaks Greater than 1,000 ppmv

**2021 QUARTER:** 2

INITIAL MONITORING PERFORMED BY: RES/WM
FOLLOW-UP MONITORING PERFORMED BY: NA
LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Location	In	itial Monitoring	9	Correc	tive Action	7-Day Remonitoring			
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech	
Flare Station	05/18/21	ND	Leigh wade	-	-	-	-	-	

ND= No Exceedances

# KCRDF Facility A1812

# QUARTERLY LFG COMPÓNENT LEAK MONITORING LANDFILL NAME: /CIRBL/

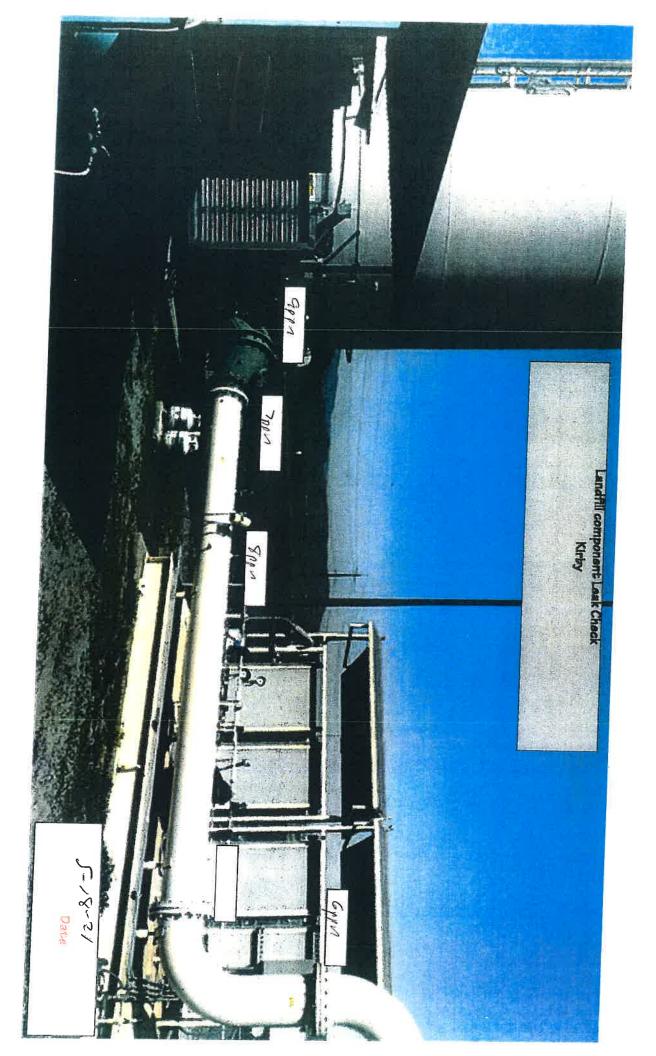
INSTRUMENT FII MAKE: Thermo Environr MODEL: TVA 1000 S/N: / ¢ 3 ¢ 3 4 6 7 > 3 FID

DATE OF SAMPLING: 5-18-2/

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.							NO EN CASOGNESS	LOCATION OF LEAK
edance is detected, pleas								LEAK CONCENTRATION (ppmv)
se intiate corrective act								DATE OF DISCOVERY
ion and re-monitor								TECHNICIAN
the exceedance location								ACTION TAKEN TO REPAIR LEAK
within 7 days of t								DATE OF REPAIR
he initial exceedance.								DATE OF ANY REQUIRED RE- MONITORING
								RE-MONITORED CONCENTRATION (ppmv)

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

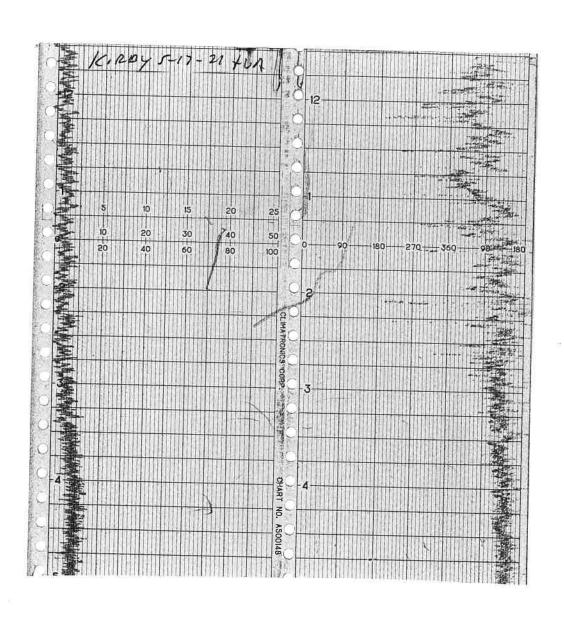
NOTE: Leaks over 1,000 ppmv methane are exceedances at any component containing landfill gas, pursuant to BAAQMD Regulation 8-34-301.2.

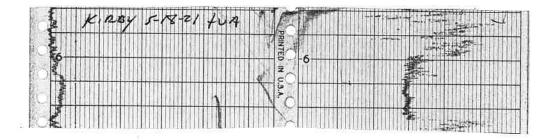


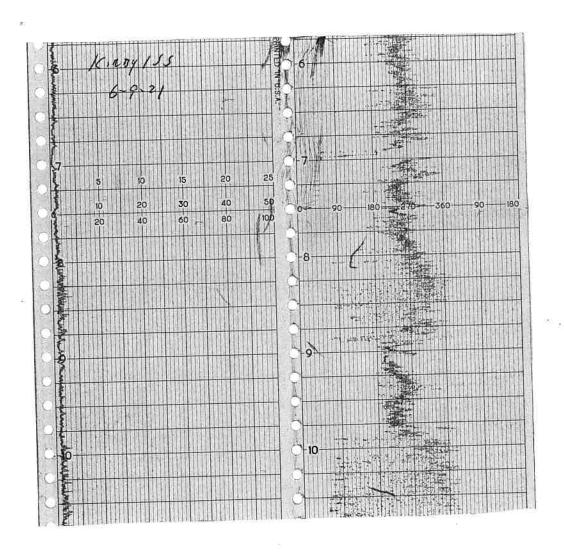


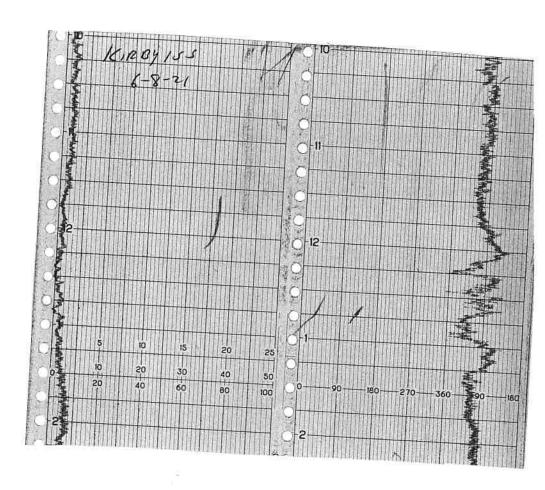
#### **Attachment D**

Weather Station Data











	16-POINT V	VIND DIRECTION	N INDEX	
NO NO	DIRECTION		<u>DEGREES</u>	
		FROM	CENTER	<u>TO</u>
16	NORTH (N)	348.8	369,0	t (1.3
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	<u>067.5</u>	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	<u>157.5</u>	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	<u>247.</u> 5	258.8
12	WEST (W)	258.8	<u>270.0</u>	281.3
13	WEST-NORTHWEST (WNW)	281.3	292.5	303.8
14	NORTHWEST (NW)	30.3.8	315.0	326,3
15	NORTH-NORTHWEST (NNW)	326.3	337.5	348.8

#### Attachment E

Calibration Records

## CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Canyon Landfill Date: 5/27/21
Time: <u>8:45</u> AM PM
Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411
<u>Calibration Procedure</u>
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): 11 ppm (a)
2. Downwind Reading (highest in 30 seconds): ppm (b)
Calculate Background Value:
$\frac{(a) + (b)}{2} \qquad \text{Background} = \underline{\qquad 6.5 \qquad \text{ppm}}$
Performed by: Markus Bernard

#### **CALIBRATION PRECISION TEST RECORD**

Date: 3/3/2021
Expiration Date (3 months): 6/2/2021
Time: <u>8:48</u> 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: ppm (c)
Meter Reading for Calibration Gas: 498ppm (d)
Measurement #3:
Meter Reading for Zero Air: 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: <u>3/3/21</u>		
Expiration Date (3 months): <u>6/2/21</u>		
Time: <u>8:48</u> AM PM		
Instrument Make: <u>Thermo Scientific</u> Model: <u>TVA 1000</u>	_ 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		_ 1 1
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		_ FF
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:		
$\frac{(a) + (b) + (c)}{3} = \frac{8}{3}$ seconds (must be less than 30 seconds)	econds)	
Performed by: M. Bernard		

## CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Canyon Landfill Date: 6/16/21
Time: 10:05 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):4 ppm (a)
2. Downwind Reading (highest in 30 seconds): ppm (b)
Calculate Background Value:
$\frac{(a) + (b)}{2} \qquad \text{Background} = \underline{\qquad 3.0 \qquad \text{ppm}}$

Performed by: Markus Bernard

## CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: <u>Kirby Canyon Landfill</u> Date: <u>6/4/21</u>
Time: <u>8:30</u> AM PM
Instrument Make: <u>Thermo Scientific</u> Model: <u>TVA 1000</u> S/N: <u>0928538411</u>
<u>Calibration Procedure</u>
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):5 ppm (a)
2. Downwind Reading (highest in 30 seconds): 4 ppm (b)
Calculate Background Value:
$\frac{(a) + (b)}{2} \qquad \text{Background} = \underline{\qquad 4.5 \qquad \text{ppm}}$
2
Performed by: Markus Bernard

#### **CALIBRATION PRECISION TEST RECORD**

Date: <u>6/4/2021</u>
Expiration Date (3 months): 9/4/2021
Time: <u>8:45</u> 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: 496 ppm (b)
Measurement #2:
Meter Reading for Zero Air: ppm (c)
Meter Reading for Calibration Gas: 498ppm (d)
Measurement #3:
Meter Reading for Zero Air: ppm (e)
Meter Reading for Calibration Gas: 496 ppm (f)
Calculate Precision:
$\frac{\{ (496) - (500)  +  (500) - (498)  +  (500) - (496) \}}{3} \times \frac{1}{500} \times 100$
1.0 % (must be < than 10%)
Performed by: M. Bernard

#### RESPONSE TIME TEST RECORD

Date: 6/4/21 Expiration Date (3 months): 9/4/21 Time: 8:50 AM PM Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411 Measurement #1: Stabilized Reading Using Calibration Gas: 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: 5 seconds (b) Measurement #3: Stabilized Reading Using Calibration Gas: 496 ppm 90% of the Stabilized Reading: 450 ppm Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: \_\_\_\_\_\_5 seconds (c) Calculate Response Time:  $\underline{(a) + (b) + (c)} = \underline{8}$  seconds (must be less than 30 seconds) Performed by: M. Bernard



Site:				
Purpose:				
Operator:	1 /M			
Date: 5-8-31		Time:	0870	
Model # TVA 10000	3			
Serial # #10 (03634	(6/)3			
INSTRUMENT INTEGRITY	CHECKLIST	INS	TRUMENT CALIBRA	TION
Battery test	Pass / Fail	Calibration	CALIBRATION CHEC	K %
Reading following ignition	7.0 ppm	Gas (ppm)	(ppm)	Accuracy
Leak test	(Pass) / Fail / NA	900	500	1004
Clean system check	Pass / Fail / NA		RESPONSE TIME	_
(check valve chatter) H2 supply pressure gauge	Fass/Fail/NA	Calibration Gas 90% of Calibrat	tion Gas, ppm	450 450
(acceptable range 9.5 - 12)	ass/ Fall / IVA	1 ime required to	o attain 90% of Cal G	as ppm
Date of last factory calibration	4-3-21	2 3	6	τí
Factory calibration record w/instrument within 3 months	Pass DFail	Average Equal to or less	than 30 seconds?	Ø N
		Instrument calil	brated to Clfy	gas.
Comments:				



Site:				
Purpose:				<del></del>
Operator:	M			
Date: 5-8-21		Time:	0845	
Model # <u>+UA 1000 /</u>				
Serial # # 1( 103 63	346779			
INSTRUMENT INTEGRITY	CHECKLIST	INS	TRUMENT CALIBRA	ATION
Battery test	Fass/ Fail	Calibration	CALIBRATION CHEC	CK %
Reading following ignition	2.1 ppm	Gas (ppm)	(ppm)	Accuracy
eak test	eas / Fail / NA	500	500	100%
Clean system check check valve chatter)	ass / Fail / NA	Calibration Gas		\$00_
H <sub>2</sub> supply pressure gauge acceptable range 9.5 - 12)	Pass / Fail / NA	90% of Calibrat Time required t 1.	tion Gas, ppm o attain 90% of Cal G	as ppm
Date of last factory calibration	4-3-21	2 3.	7	8
Factory calibration record v/instrument within 3 months	Pass) Fail		s than 30 seconds?	Ø N
Comments:				. 900.
				3



Site:				
Purpose:				
Operator: ///	- XV4			
Date: 5-8-21		Time:	0900	
Model # 1000 B				
Serial # # 12 (03620	16741			
INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION		
Dottonitoni	<i>A</i> = ::		ALIBRATION CHEC	
Battery test	Pass / Fail	Calibration	Actual	%
Reading following ignition	2,6 ppm	Gas (ppm)	(ppm)	Accuracy
	0-	500	500	100%
Leak test	Pass / Fail / NA			1 - 2
Clean system check	FO (Fall (NA		RESPONSE TIME	
(check valve chatter)	Pass / Fail / NA	Calibration Gas,	nom S	00
(Shook faire chatter)		90% of Calibration	PP'11	150
H <sub>2</sub> supply pressure gauge	Pass / Fail / NA		attain 90% of Cal Ga	
(acceptable range 9.5 - 12)		1. \( \)		ao ppiii
Detection in the second	11271	2.	5	
Date of last factory calibration	4-7-21	3.	2	£
Factory calibration record	Fail Fail	Average	5.3	
w/instrument within 3 months	2335 T All	Equal to or less t	han 30 seconds?	Ø N
		Instrument calibra	ated to	gas.
Comments:				
				96



Site:		=			
Purpose:	u M				
Date: 5-8-21		Time:	0915	<del></del>	
Model # + 13 1102	B 046175				
INSTRUMENT INTEGRITY CHECKLIST		INSTRUMENT CALIBRATION			
	~		ALIBRATION CHE	CK	
Battery test	Pass/Fail	Calibration	Actual	%	
Reading following ignition	_ <u>l</u> 9ppm	Gas (ppm)	(ppm)	Accuracy	
Leak test	Pass / Fail / NA	500	500	100 y.	
Clean system check (check valve chatter)	ease / Fail / NA	Calibration Gas,	RESPONSE TIMI	5 <i>00</i>	
H <sub>2</sub> supply pressure gauge (acceptable range 9.5 - 12)	Case / Fail / NA	90% of Calibration Gas, ppm  Time required to attain 90% of Cal Gas ppm  1.			
Date of last factory calibration	4-3-21	2. 3.	6	in the second	
Factory calibration record w/instrument within 3 months	Pass Fail	Equal to or less	than 30 seconds? rated to	y N gas.	
Comments:					
				- A	



Site:

Ригроse:				
Operator:	M			
Date: 5-8-21	Time:	0930		
Model # + VA 10002	<b>8</b>			
Serial # #14 10363	1671			
INSTRUMENT INTEGRITY	INS	TRUMENT CALIBRA	TION	
Battery test	Pass / Fail	CALIBRATION CHECK Calibration Actual %		
Reading following ignition	O.,	Gas (ppm)	(ppm)	Accuracy
	(9 ppm	500	500	100%
Leak test	Rass / Fail / NA	RESPONSE TIME		
Clean system check (check valve chatter)	Fass / Fail / NA	Calibration Gas		500
,	62	90% of Calibrat	· FF	450
H <sub>2</sub> supply pressure gauge acceptable range 9.5 - 12)	Pass / Fail / NA	Time required to attain 90% of Cal Gas ppm		
- ,	4221	1. 2.	6	
Date of last factory calibration	1-10	3.	6	¥6
Factory calibration record  v/instrument within 3 months	Pass/Fail	Average	<u>しら</u> s than 30 seconds?	Ø N
winstrument within 3 months			prated to <u>COAy</u>	gas.
Comments:	· · · · · · · · · · · · · · · · · · ·			
			The second second	
				9

# TVA1000B CALIBRATION VERIFICATION Environmental Inc.

CUSTOMER:		RES U	ar	# 10	
SERIAL NUMBER:		103634	67	13	
TECHNICIAN:	M	Magain	I	DATE: _	4-3-21

## GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

	FI	D	
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	(00	+/- 25
500	500	493	+/- 125
10000	10000	(0,000	+/- 2500
< 1	ZERO GAS	0.68	< 3
	PII	<b>D</b>	3
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

## /A1000B CALIBRATION VERIFICATION Environmental Inc.

CUSTOMER:	255	Car	# (1	
•			W	

SERIAL NUMBER: 1036346779

TECHNICIAN: 1036346779

DATE: 13-21

## GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

	FI	D	
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	500	+/- 125
10000	10000	10,003	+/- 2500
<1	ZERO GAS	0.71	< 3
	PI		÷
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS_(ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50	1	+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

# Environmental Inc.

CUSTOMER:	YLES	Class	#1	2	
	<i>II</i>				

SERIAL NUMBER: 1036246741

TECHNICIAN: 14-3-21 DATE: 4-3-21

## GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

*	FI	ID .	
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	(00)	+/- 25
500	500	500	+/- 125
10000	10000	10,102	+/- 2500
< 1	ZERO GAS	0.79	< 3
	PII	<b>D</b>	ü
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS_(ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50	7	+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

# Environmental Inc.

CUSTOMER:	Riz	Suais	#13	
SERIAL NUMBER	₹:	1102746	775	
TECHNICIAN:	U	Musignets	DATE:	4-3-21

## GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

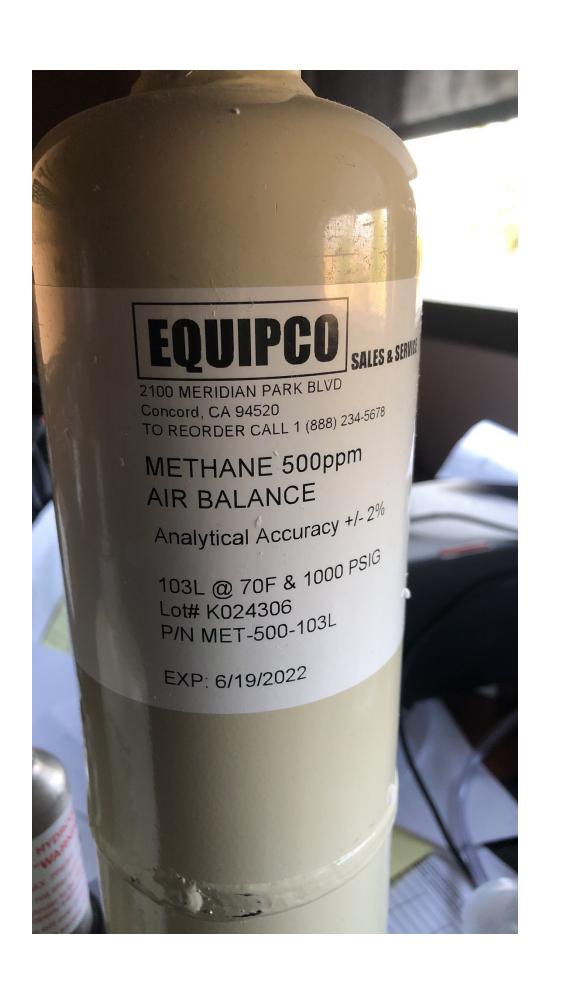
	F	ID	
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	500	+/- 125
10000	10000	(0,000	+/- 2500
< 1	ZERO GAS	0.83	< 3
	Pi	<b>D</b> 39	3
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS_(ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50	/	+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS	1	< 3

# TVA1000B CALIBRATION VERIFICATION Environmental Inc.

CUSTOMER: PGS Ca	nt # 14
SERIAL NUMBER:	346791
TECHNICIAN: M MOBILIT	S DATE: 4-3-20

## GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

	F	ID	
METHANE GAS NOMINAL (ppm)	CALIBRATION GAS (ppm)	TVA READING (ppm)	TOLERANCE (ppm)
100	100	100	+/- 25
500	500	500	+/- 125
10000	10000	60,000	+/- 2500
< 1	ZERO GAS	0.89	< 3
	PI	D	9
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	1	< 3





#### INTERMOUNTAIN SPECIALTY GASES

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

#### CERTIFICATE OF ANALYSIS

 $\begin{array}{c} \underline{\text{Composition}} & \underline{\text{Certification}} & \underline{\text{Analytical Accuracy}} \\ \text{Air - Zero} & \\ \text{THC} & <2 \text{ PPM} \\ \text{Oxygen} & 20.9\% & \pm 2\% \\ \end{array}$ 

Nitrogen Balance

Lot # 19-6779

Mfg. Date:

4/3/2019

Parent Cylinder ID

001739, 02268

Number:

#### **Method of Preparation:**

Gravimetric/Pressure Transfilled

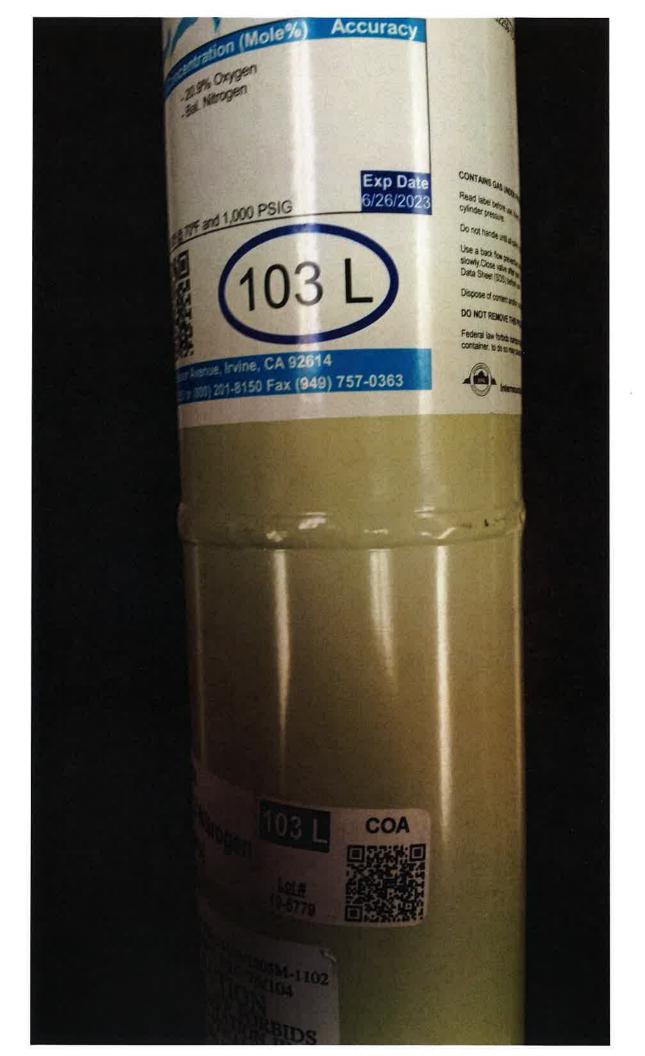
#### Method of Analysis:

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





#### INTERMOUNTAIN SPECIALTY GASES

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

#### CERTIFICATE OF ANALYSIS

Composition

Certification

**Analytical Accuracy** 

Methane

25 ppm

± 5%

Air

Balance

Lot#

17-6074

Mfg. Date:

10/16/2017

Parent Cylinder ID

17161

Number:

#### 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



#### Intermountain Specialty Gases

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



"Your calibration gas manufacturer since 1992"

#### CERTIFICATE OF ANALYSIS

Certification	Analytical Accuracy (+/-)
500 ppm	2%
20.9 %	2%
Balance UHP	
	500 ppm 20.9 %

Lot# 20-7497

Mfg. Date: 7/10/2020

Expiration Date:

Transfill Date: see cylinder

Parent Cylinder ID TWC001763

Number:

#### 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 Title:

Certificate Date: 7/10/2020

Methane (0) Service niration (Mole%) Accuracy +/- 2% 800 ppm Balance CONTAINS GAS UNGER PRESIDENT Road label before use respectively label at hand. Use engogn Do not handle until all sales one protective gloves, protective gloves, protective as #0 70°F and 1,000 PSIG Use a back flow prevents asset slowly. Close valve also see a sunlight when ambien scores Lot#: 20-7497 P/N:23-0500 tito Dispose of content and con DO NOT REMOVE THIS PRODUC Federal law forbids transp 103 L 5124). Federal law protein a Minue, Irvine, CA 92614 1 (849) 201-8150 Fax (949) 757-0363 103 L Lot # 20-2497 Nitrogen

#### **Intermountain Specialty Gases**

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



"Your calibration gas manufacturer since 1992"

#### CERTIFICATE OF ANALYSIS

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

Lot# 18-6641

Mfg. Date: 12/18/2018

**Expiration Date:** 

Transfill Date: see cylinder

Parent Cylinder ID 001763

Number:

#### 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:

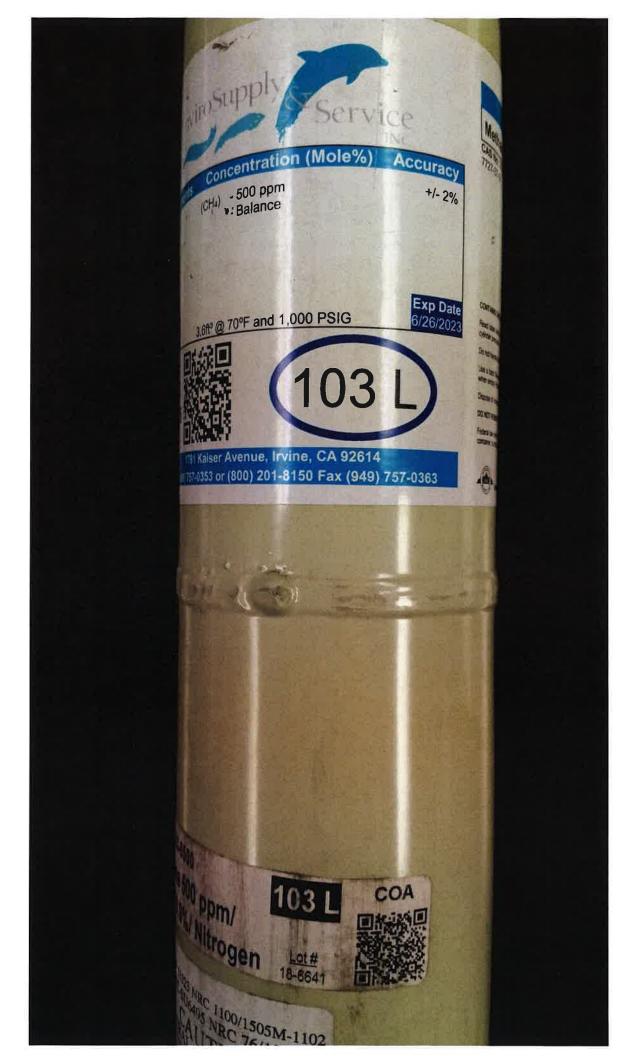
Tony Janquart

Title:

Quality Assurance Manager

Certificate Date:

12/18/2018



172 98th Avenue • Oakland, California • 94568

April 20, 2021

Ms. Becky Azevedo Kirby Canyon Recycling & Disposal Facility 910 Coyote Creek Golf Drive San Jose, CA 95037.

Re: First Quarter 2021 Surface Emissions and Component Leak Monitoring Report for the Kirby Canyon Recycling and Disposal Facility

Dear Ms. Azevedo:

This monitoring report for the "Kirby Canyon Recycling and Disposal Facility (KCRDF) Landfill" 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 RES Environmental, Inc.(RES). Re-monitoring of surface emissions was conducted by KCRDF 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 Monitoring**

- Bay Area Air Quality Management District (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 Assembly Bill 32 (AB32) landfill methane rule (LMR).

#### **KCRDF 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 KCRDF disposal area has been divided into one-hundred-and-fifty (150), approximately 50,000 square foot monitoring grids. 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 KCRDF 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.

#### **Instantaneous Surface Emissions Monitoring**

The Instantaneous SEM was conducted using a Toxic Vapor Analyzer (TVA) 1000 flame ionization detector (FID), which was calibrated to 500 parts per million by volume (ppm<sub>v</sub>) methane, which meets or exceeds all guidelines set forth in the CCR Title 17 §95471(a) and NSPS. The FID was calibrated prior to use in accordance with the United States Environmental Protection Agency (USEPA) Method 21 requirements. The Instantaneous 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 remonitoring shall be conducted within 10 days of the initial exceedance.

- o If the re-monitoring event shows the exceedance is corrected, the location shall be re-monitored within 1 month of the initial exceedance.
- o If the 1-month re-monitoring event shows the location is still corrected, all remonitoring 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 $_{\rm v}$  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 3 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<sub>v</sub> were recorded, marked on the SEM map, and flagged for remediation. Any grids with integrated concentrations greater than 25 ppm<sub>v</sub> 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**

RES 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<sub>v</sub>. All leaks measured one half inch or less from the component exceeding the compliance limit of 500 ppm<sub>v</sub> 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<sub>v</sub> 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<sub>v</sub> must be corrected and re-monitored within 10 days of the initial exceedance.
- Leaks at or above 1000 ppm<sub>v</sub> must be corrected and re-monitored within 7 days of the initial exceedance.

#### FIRST QUARTER 20210 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 23, 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*<sub>v</sub>

There were 14 exceedances of 500 ppm<sub>v</sub> as methane detected on February 23, 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<sub>v</sub>.

#### One-Month Re-Monitoring Results

The 1-month re-monitoring event was completed on March 23, 2021. All locations were observed at less than  $500 \text{ ppm}_v$ .

#### *Readings between 200 ppm<sub>v</sub> and 499 ppm<sub>v</sub> (Initial and Re-monitored)*

There were no readings between 200 ppm<sub>v</sub> and 499 ppm<sub>v</sub> as methane detected during the initial monitoring event on February 23, 2021. Pursuant to CCR Title 17 §95471(c), instantaneous surface emissions exceeding 200 ppm<sub>v</sub> but below 500 ppm<sub>v</sub> are required to be recorded.

#### **Integrated Surface Emissions Monitoring Results**

The Integrated surface sampling (ISS) was performed on February 23 and 24, 2021, in accordance with the ACO and requirements outlined in CCR Title 17 §95469.

#### Initial Monitoring Event Exceedances of 25 ppm<sub>v</sub>

There were no grids with exceedances of 25 ppm<sub>v</sub> as methane detected during the initial monitoring event on February 23 and 24, 2021.

The average methane concentration of each grid was recorded during the monitoring event per applicable requirements. See Attachment B, Integrated SEM 25 ppm<sub>v</sub> 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 23, 2021. No leaks greater than 500 ppm<sub>v</sub> were identified. 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 chart data is scanned and included in Attachment D.

#### **Precipitation Requirements**

Per the KCRDF'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<sub>v</sub> in air for integrated sample analyses and 500 ppm<sub>v</sub> 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

Ms. Becky Azevedo Page 6

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
- SEM Map

#### **Attachment B – Integrated Surface Emission Monitoring Event Records**

- Monitoring Logs and Exceedances
- 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

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

2021 QUARTER: 1

INITIAL MONITORING PERFORMED BY: RES Wind Direction: W

FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard

LANDFILL NAME: Kirby Canyon LANDFILL Wind Speed: 2 MPH

Ini	tial Monitor	ring Event	Correct	tive action within 5 days	1st 1	0-day Follow	r-Up	1st 30	-day Follo	ow-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	
01	2/23/2021	1300ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	44 ppm		3/23/2021	6 ppm		Well 128
O22	2/23/2021	40000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	7 ppm		3/23/2021	12 ppm		Well 126
O21	2/23/2021	2800ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	8 ppm		3/23/2021	3 ppm		Well 75
O23	2/23/2021	40000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	34 ppm		3/23/2021	0 ppm		Well 82
O24	2/23/2021	5000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	45 ppm		3/23/2021	27 ppm		Well 118
O2	2/23/2021	700Ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	12 ppm		3/23/2021	0 ppm		Well 151
O41	2/23/2021	2500ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	4 ppm		3/23/2021	4 ppm		Well 51
O42	2/23/2021	5000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	4 ppm		3/23/2021	9 ppm		Well 124
O43	2/23/2021	700ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	8 ppm		3/23/2021	5 ppm		Well 37
O44	2/23/2021	16000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	10 ppm		3/23/2021	5 ppm		Well 83
O45	2/23/2021	1200ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	4 ppm		3/23/2021	3 ppm		Well 62
O46	2/23/2021	4000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	4 ppm		3/23/2021	34 ppm		Well 99
O47	2/23/2021	3800ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	20 ppm		3/23/2021	8 ppm		Well 66
O48	2/23/2021	1000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	33 ppm		3/23/2021	24 ppm		Well 110
		•									

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

**2021 QUARTER:** 1

**PERFORMED BY:** RES/WM

LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Flag Number	Grid Number	Date of Monitoring	Concentration of Emission (ppmv)	Comments
O1	82	2/23/2021	1,300	Well 128
O22	89	2/23/2021	40,000	Well 126
021	89	2/23/2021	2,800	Well 75
O23	83	2/23/2021	40,000	Well 82
O24	59	2/23/2021	5,000	Well 118
O2	81	2/23/2021	700	Well 151
O41	68	2/23/2021	2,500	Well 51
O42	74	2/23/2021	5,000	Well 124
O43	83	2/23/2021	700	Well 37
O44	74	2/23/2021	16,000	Well 83
O45	148	2/23/2021	1,200	Well 62
O46	148	2/23/2021	4,000	Well 99
O47	116	2/23/2021	3,800	Well 66
O48	58	2/23/2021	1,000	Well 110

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

**2021 QUARTER**: 1

INITIAL MONITORING PERFORMED BY: RES/WM

FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard
LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Initial Mo	nitoring Eve	ent	Corrective	action within 5 days	1st 10-	day Follov	w-Up	1st 30	-day Follo	w-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
O1	2/23/2021	1300ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	44 ppm		3/23/2021	6 ppm		Well 128
O22	2/23/2021	40000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	7 ppm		3/23/2021	12 ppm		Well 126
O21	2/23/2021	2800ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	8 ppm		3/23/2021	3 ppm		Well 75
O23	2/23/2021	40000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	34 ppm		3/23/2021	0 ppm		Well 82
O24	2/23/2021	5000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	45 ppm		3/23/2021	27 ppm		Well 118
O2	2/23/2021	700Ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	12 ppm		3/23/2021	0 ppm		Well 151
O41	2/23/2021	2500ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	4 ppm		3/23/2021	4 ppm		Well 51
O42	2/23/2021	5000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	4 ppm		3/23/2021	9 ppm		Well 124
O43	2/23/2021	700ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	8 ppm		3/23/2021	5 ppm		Well 37
O44	2/23/2021	16000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	10 ppm		3/23/2021	5 ppm		Well 83
O45	2/23/2021	1200ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	4 ppm		3/23/2021	3 ppm		Well 62
O46	2/23/2021	4000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	4 ppm		3/23/2021	34 ppm		Well 99
O47	2/23/2021	3800ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	20 ppm		3/23/2021	8 ppm		Well 66
O48	2/23/2021	1000ppm	2/25/2021	Dirt/Water/ Pipe Construction	3/3/2021	33 ppm		3/23/2021	24 ppm		Well 110

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

**2021 QUARTER**: 1

INITIAL MONITORING PERFORMED BY: RES/WM

FOLLOW-UP MONITORING PERFORMED BY: Markus Bernard

LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Initial M	Ionitoring Even	t	1st Re-m	non Event -	10 Days	2nd Re-r	non 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
82	2/23/2021	1,300	3/3/2021	44 ppm					Well 128
89	2/23/2021	40,000	3/3/2021	7 ppm					Well 126
89	2/23/2021	2,800	3/3/2021	8 ppm					Well 75
83	2/23/2021	40,000	3/3/2021	34 ppm					Well 82
59	2/23/2021	5,000	3/3/2021	45 ppm					Well 118
81	2/23/2021	700	3/3/2021	12 ppm					Well 151
68	2/23/2021	2,500	3/3/2021	4 ppm					Well 51
74	2/23/2021	5,000	3/3/2021	4 ppm					Well 124
83	2/23/2021	700	3/3/2021	8 ppm					Well 37
74	2/23/2021	16,000	3/3/2021	10 ppm					Well 83
148	2/23/2021	1,200	3/3/2021	4 ppm					Well 62
148	2/23/2021	4,000	3/3/2021	4 ppm					Well 99
116	2/23/2021	3,800	3/3/2021	20 ppm					Well 66
58	2/23/2021	1,000	3/3/2021	33 ppm					Well 110

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

**2021 QUARTER:** 1

INITIAL MONITORING PERFORMED BY: RES/WM
FOLLOW-UP MONITORING PERFORMED BY: NA

LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

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

# Orange Flag Landfill Surface Emissions Monitoring Exceedances and Monitoring Log

Site: KIRBIJ

LE154W10	Quarter / Year:		702 +51	-										Page of	Pages
Figure 10   Figu	Technician:		(E)34W/	10E											
Fig.   First Feedback   First Feedbac	Instrument:		+UA100	۵											
Fig.	Calibration Sta	ndard:	500 PK	2.43											
Fig. 2   Field Reading   Date   No Ecot.   Ecot.   Date   No Ecot.   Ecot.   Date   No Ecot.		al Mor	itoring Event		First Re-M	lonitoring Event	- 10 Days	Second Re-	Monitoring Eve.	nt - 10 Days	30-Day	/ Follow-up Mor	nitoring	Comments	
1   25   25   25   25   25   25   25		_	Field Reading	Date	Date	No Excd.	Excd.	Date	No Excd.	Excd.	Date	No Excd	Excd.		
1 \$\frac{82}{2}\$ 1300 233.21  2 \$\frac{84}{2}\$ 4000  23 \$\frac{84}{2}\$ 4000  43 \$\frac{4}{2}\$ 600  44 \$\frac{4}{2}\$ 74 5000  45 \$\frac{4}{2}\$ 83 4000  46 \$\frac{4}{2}\$ 83 500  47 \$\frac{4}{2}\$ 83 500  48 \$\frac{4}{2}\$ 600  49 \$\frac{4}{2}\$ 600  40 \$\frac{4}{2}\$ 83 600  40 \$\frac{4}\$ 83 600  40 \$\frac{4}\$ 83 600  40 \$\frac{4}{2}\$ 83 600  40 \$\fr	ımper	ımber	(mdd)	Monitored	Monitored	<500 ppm	>500 ppm	Monitored	<500 ppm	>500 ppm	Monitored	<500 ppm	>500 ppm		
2.1 89 2800 2.2 89 2800 2.3 82 40,000 2.3 82 40,000 2.4 54 500 41 54 5000 42 54 5000 43 55 5000 44 54 1200 45 1400 47 1400 48 55 1,000 49 1400 49 1400 40 1400		7 2 5	1300	2-23-21										WE11120	
27 89 2800  28 40000  40 6000  41 68 5200  42 1400  43 843 500  44 54 6000  45 1400  46 142 5000  47 142 6000  48 142 6000  49 142 6000  40 142 6000	7	- 2	200											151/130	
23 83 40,000 42 83 40,000 43 83 40,000 44 54 500 45 54 500 47 68 500 48 58 600 49 600 400 40 600 400 40 600 400 40 600 400 40 600 400 40 600 400 40 600 400 40 600 40 600 40 600 40 600 40 600 40 600 40 600 40 600 40 600	77		2800											WE1175	
23	77		70,000											WE1/126	
11 68 2600 Well 25 400 Well 27 45 5000 Well 27 45 5000 Well 27 5000 We	23		40,000											00	
47 5% 2 600 42 74 5,000 43 83 700 44 1400 45 1,000 47 146 3,800 48 58 1,000 49 58 1,000	24	a	5,000											11	
45 24 5,000 47 24 5,000 48 58 1,000 48 58 1,000 48 58 1,000 49 58 1,000 40 116 2,000 40 116 2	16	l∞	2000											WE1151	
43 83 700 44 74 16000 45 14000 47 148 6000 47 148 5800 47 148 5800 47 14000 48 58 1,000	2/2	7	5,000							7				121112M	
45 14 16,000 45 148 4,000 40 148 4,000 47 116 \$3860 47 148 58 1,000	43		700											WE1137	
45 148 1200 40 148 4000 47 116 \$3800 48 58 1,000	64	2												1581183	
148 400 000/1 85 8h	154	Á	1200											2911211	
1000 1 280 3 80 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 94		6007											WE1199	
↑	1 6		00											W=1166	
	5 86	M	0	$\rightarrow$										W#11/10	
	ò														
	0														
	-0														
	-0														
	0-														
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	ó														

ersonnel: LEISHWAPE JESSE MENNING
Nicle Benks Cal. Gas Exp. Date: 9-21-21
Date: 2-23-2/ Instrument Used: $fvA1000$ Grid Spacing: $25^{\prime}$
Temperature: Precip: Upwind BG: Precip:

GRID ID	STAFF	START	STOP	тос	IIW	ND INFOR	MATION	DEMARKS
	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	REMARKS
37	LW	0600	0615	94	2	4	8	
41	BP	0600	0615	1/7	2	9	8	
42	OP NB	0600	0615	96	2	4		
43	JM LW	0600	0615	71	2	4	8	
84		0615	0670	29	Z	4	19	
47	OP	0615	0630	75	2	9	7	
48	NB	0615	0630	124	2	Ý	9	
43 52 53	3n	0615	0630	61	2	9	19	
52		0630	0645	113	2	9	19	
	OP	0630	0845	81	2	9	7	
54	NB	0630	0645	56	7	Ÿ	1	
55	ナク	0670	6645	39	2	4	7	
57	LW	0645	0700	14	2	. 4	7	
28	op	0645	0700	1,000	2	4	1	WE11/10
59	ND	0645	0700	5,000	2	9	j	WE:1/18
60	77	0645	0700	132	2	4	7	
6/	(2/	0000	0715	47	2	3	8	
64	op NB	0700	6715	45	2		8	
65	NB	0)00	0)5	81	2	J	8	
66	Da	0)00	0)15	113	2	7	8	
6)	LW/	0715	0770	140	2	J	8	
68	00	0715	0730	2500	2	3	8	W51/57
70	ND	0715	0730	20	2	3	8	
7/	Ja	0715	0770	59	2	3	8	
72	2	0770	0745	94		3	8	
23	op	0770	0745	147	2	3	8	
74	NB	0730	0745	16,500	2.	J	X	WE1183
>5	50	0>73	0741	160	2	1	8	
75	LW	6745	0800	18	2	3	8	
80	op	5745	0800	84	2	2	8	

Attach Calibration Sheet

Attach site map showing grid ID

Page \_\_\_\_\_ of \_\_\_\_\_\_\_

Personnel: 1 Eigh WADE	TESSE MENVING	
omen penelti		1//
NICK BANKS		Cal. Gas Exp. Date: <u>9-21-21</u>
Date: <u>2-23-2/</u> Instrument Use	ed: <u>tva 1006</u> Grid	Spacing: 28
Temperature: Precip:	2 Upwind BG: 7×4	Downwind BG: 7-10

GRID ID	STAFF	START	STOP	тос	WIN	ND INFOR	MATION	DEMARKS
	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	REMARKS
8/	NB	0745	0800	700	2	3	5.	WE11151
82	JM	0745	0800	1300	2	3	8	WE11/20
83	LV	0800	0815	40,000	2	4	19	W01182
86	OP	0800	0815	3/	2	4	2	
8)	NB	0800	0815	110	7	4	7	
88	Jn	0000	0815	59	7	- 9	19	
89	LW	08/5	9820	40,000	2	9	Q	WE11126
90	op	0815	0830	26	2	9	£ .	
94	NB	0815	OFJO	31	2	4	6	
95	50	0811	0870	25	2	9	6	
96	W	0870	6845	39	2	3	5	
97	OP	0830	0845	24	2	3	5	
101	NB	0870	0845	155	2	]	5	
162	70	0870	0845	27	2	3	5	
163	2	0845	0500	24	2	y	3	
104	OP	0845	0900	19	2	4	J	
105	ND	0841	0510	3/	2	4	J	
109	50	0845	0900	20	2	9	3	
110	しひ	0900	2515	1/	2	J	3	
171	OP	0500	0915	15	2	3	]	
112	NB	0900	0915	< 2	2	J	]	
116	20	0900	0515	3800	2	)	3	WE1166
117	LW	0915	0970	26	2	3	3	
118	op	0511	0530	40	2	3	3	
119	an	0515	0520	31	4	3	3	
120	J1	05/4	0930	19	2	3	J	
124		0977	0945	51	2	J	3	
125	op	0930	0945	34	2	3	3	5
128	NB	0570	0845	15	7	3	3	
127	Ja	0530	6841)	50	7	3	3	

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Attach site map showing grid ID

Page  $\frac{2}{3}$  of  $\frac{3}{3}$ 

Personnel: LEISHWADE	JOSSE MCLNING	
NICK Barks		Cal. Gas Exp. Date: 9-2/-2/
Date: 2-23-2/ Instrument Us	ed: +valoob Grid	d Spacing: 25/
Temperature: Section:	Unwind BG: 2.4	Downwind BG: 3-7

GRID ID	STAFF	START	STOP	тос	WII	ND INFORM	NOITAN	REMARKS
	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	REPIARES
128	62	0945	1000	39	3	9	3	
132	op ND	0945	1000	26	1	Y.	1	
133	ND	0945	1000	45	j	9	Ĵ	
134	70	0945	1000	32	3	9	3	
135	2 W	1000	1015	5>	2	3	6	
136	ορ	6000	1015	28	7	J	6	
13)	NB	1860	1011	43	7	2	b	
138	12	1010	1015	25	2	3	b	
139	(w/	1015	1070	19	7	)	6	
140	OP	1015	1630	1>	4	3	ļ.,	
141	NB	1815	1030	36	7	3	J	
142	ナハ	1015	1030	18	2	3	6	
143	LN	10)0	1045	142	2	4	le	
144	OP	1070	1845	26	7	Ÿ	b	
145	NB	1070	1085	31	7	y	Jo.	
146	53	1070	1045	93	2	4	le	
147	(w	1645	1120	23	2	4	6	
148	OP	1841	1100	4,000	J	y	b	W01199
145	NB	1045	1100	24	+	Y	6	
150	Jn	1045	1100	26	2	9	6	

Attach Calibration Sheet Attach site map showing grid ID

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sonnel:	6E184W	108							
9							Cal. Gas	Exp. Da	ite:
)ate: <u>2</u>	-23-21	_ Instrur	ment Used	l;		Gri	d Spacing:		
emperat	ure:	Pred	cip:	Up	wind BG:		Downv	vind BG	
GRID ID	STAFF		STOP	тос	WIND INFORMATION		R	REMARKS	
7/	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT		
<i>76</i>								Acti	VG-+1295
91									
98									
106									
113									
121									
129									
84									
99									
10)								1	
1								NOLIA	ste imple
2									1
3									
5									
6									
7									
8			,						
9									
10									
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12									1
13									1
1					-				1
16									-
12									
15									7

Attach Calibration Sheet
Attach site map showing grid ID

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sonnel:	LEISLW	NOE								
;a							Cal. Gas	s Exp. Date: _		
Pate:	.23-21	Instru	ment Use	d:		Gri	d Spacing			
Temperature: Precip:			Up	Upwind BG: Down			wind BG:			
GRID ID	STAFF		STOP	тос	WIND INFORMATION		DEMA	REMARKS		
	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	_ KEMAI	REMARKS	
19								1		
20										
21										
22										
23										
24										
25										
26								\		
27				•						
28										
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35										
36			-							
38										
39										
40										
43										
46										
0										
57							-		-	
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Attach Calibration Sheet Attach site map showing grid ID

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(2							_ Cal. Gas	Exp. Date:
)ate: <u>7</u>	-27-21	Instrur	nent Used	i;		Gri	d Spacing:	
emperat	:ure:	Pred	cip:	Up	wind BG:	0	Downw	ind BG:
GRID ID	STAFF	START	STOP	тос	WIN	ND INFORM	MATION	REMARKS
	INITIALS	LS TIME TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	13-17 11 11 11
85								)
93								
100								
114								-
115								
122			H					
123								
130								
131								V
				-				
							7	
								71-91

Attach Calibration Sheet Attach site map showing grid ID

Page \_\_\_\_\_ of \_\_\_\_

SITE: KIRBY

DATE: 2-23-2/

PENETRATION ID	GRID NUMBER	INITIAL (PPM)	
	37		
	41		
	42		
12	43		
-	١/ ١/		
	1 /		
WE11 601/2	47	8-5	
WE11/48	48	13:	
we11149	49	V	
	7 /		
WEIL 105 WEIL 117	52	10	
WE11/2/		25	

SITE: KIRBY

DATE: 2-27-2/

PENETRATION ID	GRID NUMBER	INITIAL (PPM)	
UE11145	53	8	
	5 4		
	55		
36	57		
MEII / 19	58	1,000	
	59		
WEI1 118	1.0	145	
	60		
WEI1 84 WEI1 65143	6/	10	
LR-11	64	9	

SITE: KRBY

DATE: 2-23-2/

PENETRATION ID	GRID NUMBER	INITIAL (PPM)		· · · · · · · · · · · · · · · · · · ·
	65			
	66			,
	67			
	, , , , , , , , , , , , , , , , , , ,			
1,5// ()	68	2500		
₩ E(  S	<i>C</i> , <i>U</i>	<i>- - - - - - - - - -</i>		
	70			
	70			
WE11109	7/	9		
WE11147	72	34		
WE11122		49		
WEILIZD	73	12		
	+			
WE11 124	74	8.000		
WEIL 83	/	16,000		
1.121 1127	75		L	
W=11/42	/ 3	160		

SITE: KIRDY

DATE: 2-23-7/

PENETRATION ID	GRID NUMBER	INITIAL (PPM)	to the property of the propert
	79		
M R(1 1 ) D	80	13	
WE11108		132	
2610		15	
WEI! 15/	81	700	
	82	9	
WEIL 57	0 0	120	
W#11/2		1300	
WEI/ 3>	83	700	
	86		
WEI1119	8 6	5	
WE11/29	87	14	
WE11152		110	
Well 86	88	1/	
W6/1126	89	90,000	
WE11 82		2800	
WE1175 WE11/4/	90	15	

SITE: /Lingy

DATE: 2-23-2/

PENETRATION ID	GRID NUMBER	INITIAL (PPM)		
	94			
	95			
	96		43	
Well 139	97	24		
WEILSY		5		
WEIL 4 8	10/	155		
EW-76	102	8		
WEII 137	103	9		
WEI 65	104	7		
LR04	105	1/		
	109			

SITE: 12, PBY

DATE: 2-23-2]

PENETRATION ID	GRID NUMBER	INITIAL (PPM)	· · · · · · · · · · · · · · · · · · ·
EW 91	110	6	
WEIL 93		6	
well 34	11/	15	
WEILIYO	112	15	
WEIL 66	116	3800	
EW98	117	9	
WE1192 EW74	118	16 9	
WEIL 185	119	7	
	/20		
	124		
Ł. ,	125		
w31195	126	1.1	

SITE: 121My

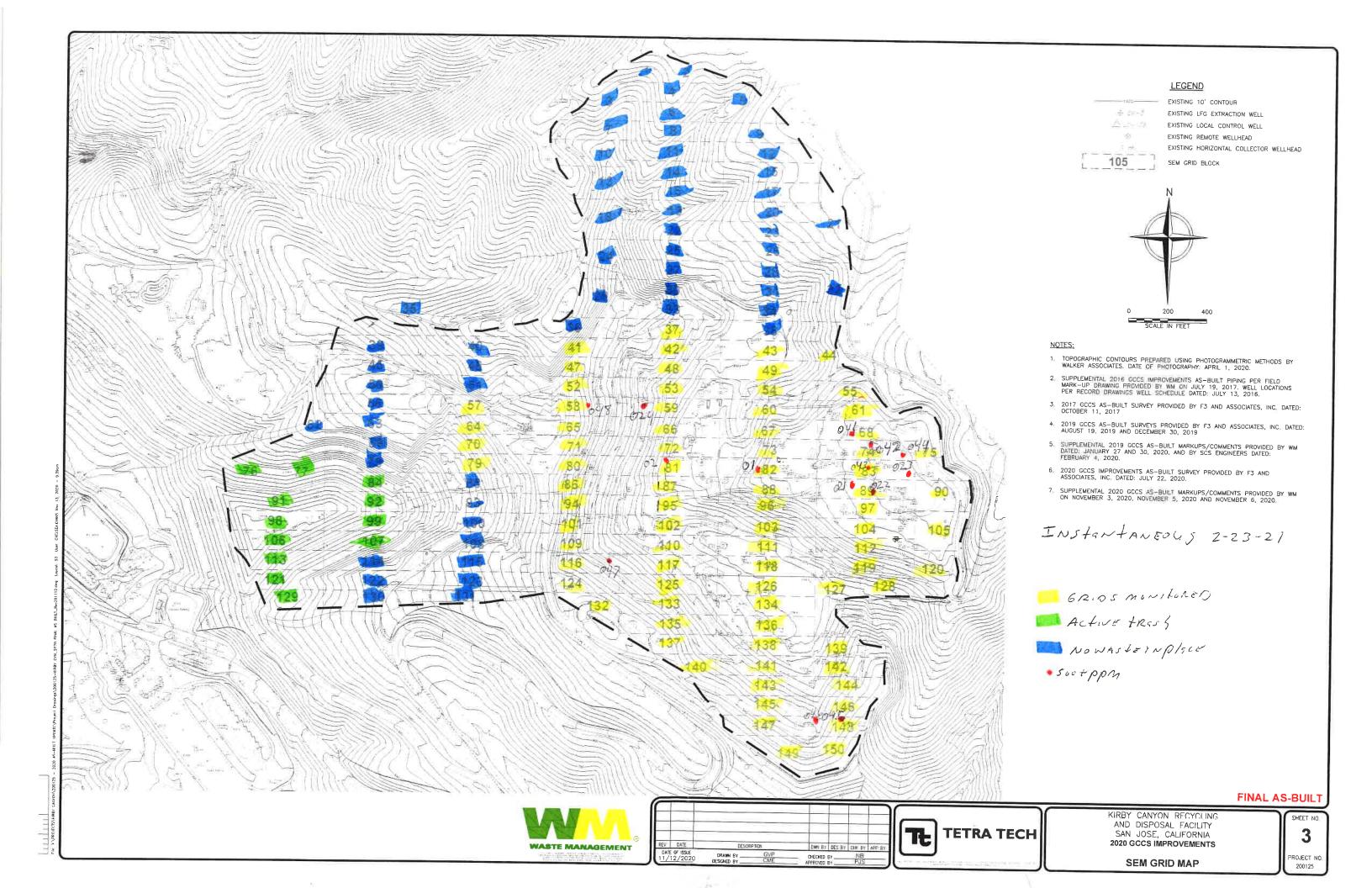
DATE: 2-23-7/

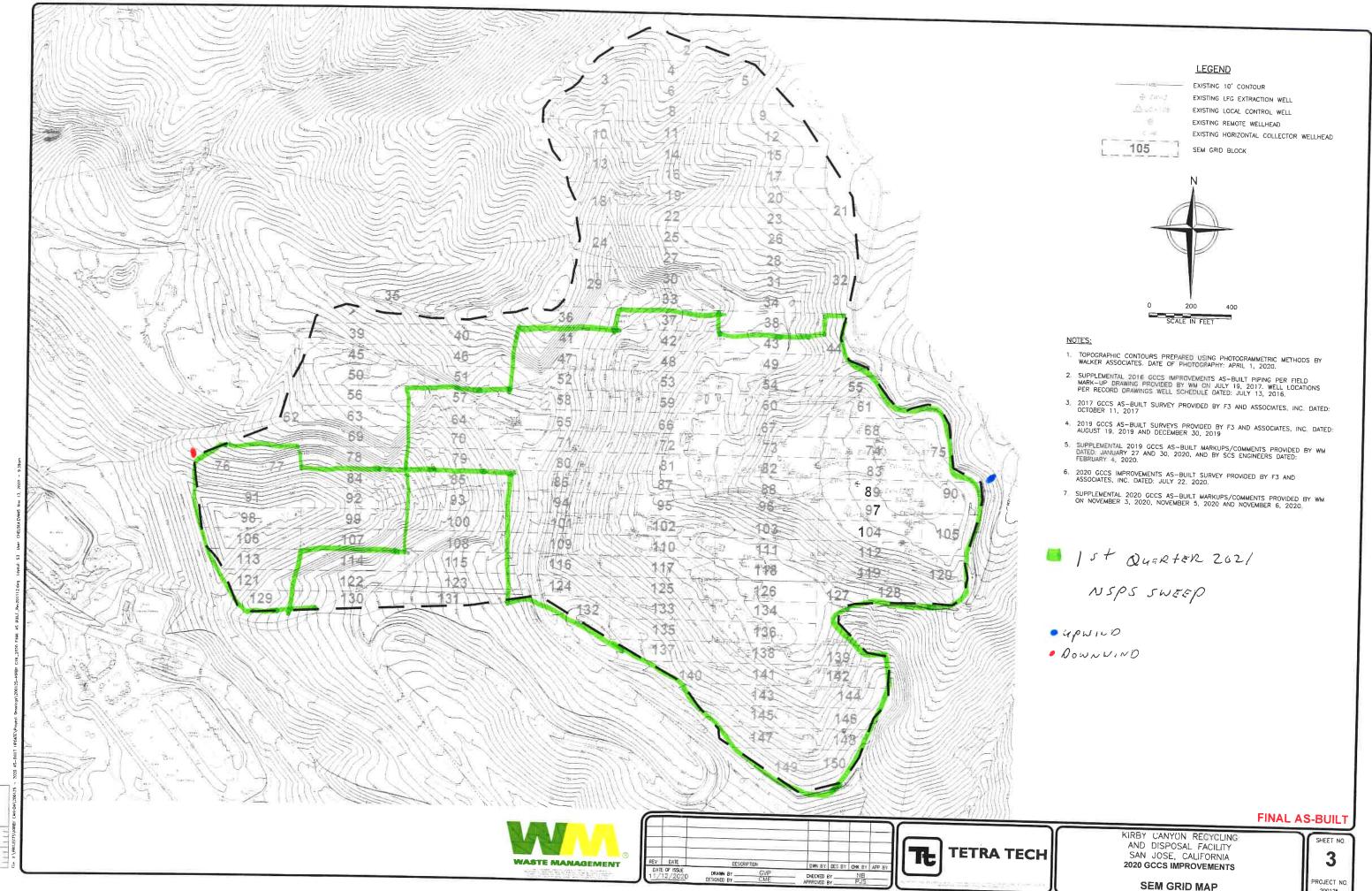
PENETRATION ID	GRID NUMBER	INITIAL (PPM)	
WELL 101	127	50	
	128		
	132		
EW94	133	10	
	134		
	12.5		
	135		
241197	136	8	
	137		
Wt11 88	178	5-8	
EW90		7	
EV 103 AW 102	139	1/	
	140		
	/ ٤//		
W87172	142	9	

SITE: KIRBY

DATE: 2-27-2/

PENETRATION ID	GRID NUMBER	INITIAL (PPM)	 
W\$1170	143	142	
EW71	144	10	
ું કર <sup>્</sup>	145		
	146	· · · · · · · · · · · · · · · · · · ·	
2	147		
WE1162	148	1700	
WE11 99	149	4,000	
	150		
	Ti.		





PROJECT NO. 200125

#### 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: N/A

LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Initial Mor	nitoring Event		1st Re-mo			
Exceedance	Monitoring	Field	Monitoring	No Exced.	No Exced.	_
Grid ID No.	Date	Reading	Date	<25 ppm	>25 ppm	Comments
None						

# KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LEISGWADE	TESSE MELLINI	
will BoxKs		Cal. Gas Exp. Date: 9-21-2/
Date: Z-23-2/ Instrument	Used: <u> </u>	id Spacing: 25'
Temperature: 60 Precip:	O Unwind BG: 7.V	Downwind BG: 7 2

GRID	STAFF	START	ART STOP TOC WIND INFORMATION		MATION	DEMARKS		
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	REMARKS
37	Lw	1110	1135	7.51	3	5	7	
41	00	1110	1175	11-48	7	5	I	
42	NB	1110	1135	15.61	ũ	5	3	
43	50	1110	1135	9-28	1	5	1	
44	Lu	1135	1200	6.17	9	5	1	
47	op	1105	1700	10-52	4	3	Ĭ.	
48	NO	1177	1760	14.75	Ч	5	3	
49	22	1135	1200	9-60	9	5	. 3	
52.	LV	1270	1215	10.60	Ÿ	10	1	
53	00	1270	1255	18.59	4	b	7	
59	NB	1270	1251	9-75	Ÿ	7	3	
55	50	1270	1255	6.42	4	6	.7	
57	LV	1755	1320	4-18	Ý	6	3	
58	00	1215	1720	11.96	4	6	j	
59	iB	1255	1220	20-13	4	6	3	
60	7~	1255	1220	7.10	9	6	3	
6/	w	1320	1345	6.78	Ÿ	10	1	
64	op	1320	1745	4-10	Ÿ	6	3	
65	ND	1320	1345	7-28	4	6	3	
66	7~	1720	1345	21-45	9 1	6	3	
67	W	1345	1410	24.02	9	6		
68	00	1345	1410	10-21	Ÿ	6	3	
170	NB	1345	1410	4.28	9	6	3	
7/	57	1345	1410	8,16	Ý	6	1	
72	LU	1410	1475	7.41	Ÿ	8	5	
73	OP	1410	1431	6-18	Ý	3	5.	
74	NB	1410	1435	5-10	4	8	5	
75	50	1410	1475	6.54	41	8	5	
79	lu	1475	1500	9,28	J	6	Ÿ	
80	OP	1475	1500	7.96	U	10	y	

Attach Calibration Sheet Attach site map showing grid ID

Page \_\_\_\_\_\_\_ of \_\_\_\_\_\_

# KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

Personnel: LETS 4 WART	- JUSENOUNING	
NICKBERICS	_	Cal. Gas Exp. Date: 9-2/-2/
Date: Z·27-2/ Instrument	Used: Gr	id Spacing: 25
Temperature: 64 Precip:	O Upwind BG: 7.4	Downwind BG: 7.2

GRID	STAFF	START	STOP	TOC	WIN	ID INFOR	RMATION	REMARKS
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	REMARKS
81	NB	1435	1500	7.51	4	6	4	
82	Ta	1435	1500	8.25	y	6	4	
83	LW	1500	1525	6-40	V	8	Ġ.	
86	OP	1500	1525	6.92	Ý	8	lo	
87	NB	1500	1525	8.50	4	8	6	
88	70	1500	1525	7.94	9	-3-	6	
89	(2)	1525	1550	5.28	9	-8-	مار	
90	ορ	1525	1550	4.61	ý	Š	b	
94	NB	1521	1550	5.21	4	8	6.	
95	77	1525	1550	6-11	Ý	8	Je	
96	LV	1550	1615.	5.79	9	8	79	
97	90	1550	1615	5.22	4	8	7	
131	NB	1550	1615	5-16	4	-	1	
102	517	1550	1615	4.98	ij	8	7	
	3							

Attach Calibration Sheet Attach site map showing grid ID

Page 2 of 2

# KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

5							Cal. Gas Ex	p. Date	
ate: <u>2</u> -	27-21	Instrume	nt Used: _			_ Grid S	Spacing:		
emperat	ure:	Precip	:	_ Upwind	BG:		Downwin	d BG:_	
GRID	STAFF	START	STOP	тос	WIN	ID INFOR	RMATION	R	EMARKS
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT		
76								Action	18 FRS
7)									1
91									
98									
106									
119									
2/									
129									
84									
92									
99									
107								¥	,
/								NOUNS	te inip
7									1
J									
Y									
5			<						
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
1 >									1

Attach Calibration Sheet Attach site map showing grid ID

Page \_\_\_\_\_ of \_\_\_\_\_

# KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

1 <del>2</del>								Date:
ate: <u>Z</u>	23-21	Instrume	nt Used:			_ Grid S	Spacing:	
emperat	ure:	Precip	:,	Upwind	BG:		Downwind	BG:
GRID	STAFF	START	STOP	тос	WIN	ND INFOR	MATION	REMARKS
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	KEMAKKS
19								
70								
21								
22								
2]								
24								
23								
76								
27								
28								
25								
) o								
31								
72								
77								
34								
35				4				
36								
38								
39								
40								
45								
46								

Attach Calibration Sheet Attach site map showing grid ID

Page \_\_\_\_\_ of \_\_\_\_\_

# KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

-							Cal. Gas Exp	. Date:
ate: <u>2</u>	27-2/	_ Instrume	nt Used: _			_ Grid S	Spacing:	
emperat	ure:	Precip	:	_ Upwind	BG:		Downwind	BG:
GRID STAFF		START	STOP	тос	NIW I	ND INFOR	MATION	REMARKS
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	TAZI BILANG
93								
100								
108								
114								
115								
172	<u> </u>							
127								
130								

Attach Calibration Sheet
Attach site map showing grid ID

Page \_\_\_\_ of \_\_\_\_

# KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

	Esse mehring	2.0
NICH BONES		Cal. Gas Exp. Date: 9-2/-2/
Date: 2-24-2) Instrument Used:	tualous Gri	d Spacing: $25'$
Temperature: 4 b Precip: 0	Upwind BG: 2a4	Downwind BG: 3.0

ID	GRID	STAFF	START	STOP	тос	WIN	ID INFOR	MATION	REMARKS
169		ı							REMARKS
105 NB 0550 0615 9.72 5 8  109 JA 0550 0615 5.71 4 5 8  1100 LV 0615 0440 5.74 4 5 8  1111 0f 0615 0640 5.72 4 5 8  1112 NB 0615 0640 5.78 4 5 8  1117 LV 0640 0705 C.10 4 5 8  117 LV 0640 0705 C.10 4 5 9  118 0p 0640 0705 4.74 4 5 9  119 NB 0640 0705 J.12 4 5 9  120 JA 0640 0705 J.12 4 5 9  121 LV 0715 0700 0715 J.12 4 5 9  132 NB 070 0715 J.12 3 5 7  133 NB 070 0715 J.12 3 6 7  134 JA 0715 0820 4.89 4 6 7  139 LV 0820 0845 J.21 4 6 7  140 0p 0820 0845 J.21 4 6 8	103	16	0550	0615	5.64	9	5	8	
109 TA OND OBIS 4,72 Y S S S S S S OBIS 5.71 Y S S S S S S OBIS 5.71 Y S S S S S OBIS 5.71 Y S S S S S OBIS 5.71 Y S S S S S OBIS 5.74 Y S S S S S OBIS 5.74 Y S S S S S OBIS 5.74 Y S S S S OBIS 5.74 Y S S S S S OBIS 5.74 Y S S S S S OBIS 5.74 Y S S S S OBIS 5.74 Y S S S S S S OBIS 5.74 Y S S S S S S S S S S S S S S S S S S		op	0550	0615	4.25	9	5	8	
110		NB			4.72	9	5	8	
(11		TI	0550	0615	5.71	9	5	8	
11	110		0615		5.34		5	8	
		0.0	0615		5-72		5	8.	
117 LV 6640 0705 CLO 4 5 9  118 0p 0640 6705 4.74 4 5 9  119 ND 0640 0705 4.74 4 5 9  120 7m 0640 0705 5.12 4 5 9  124 LV 6705 0700 5.12 3 5 7  125 -0p 0701 0770 5.12 3 5 7  126 ND 0705 0770 5.37 2 5 7  127 Ja 0705 0770 5.37 2 5 7  128 LU 0720 0705 4.46 3 6 7  132 0p 0770 070 3.65 3 6 7  133 NB 0700 0705 4.48 3 6 7  134 Ja 0705 0820 4.87 4 6 7  136 0p 0705 0820 4.87 4 6 7  137 ND 0705 0820 4.87 4 6 7  138 Jo 0705 0820 4.55 4 6 7  139 LV 0820 0840 3.21 4 6 7  140 0p 0820 0840 3.21 4 6 7  140 0p 0820 0840 3.21 4 6 7  140 0p 0820 0840 3.21 4 6 8			olis	0640	5-38	Ч	5	7.6	
117 LV 6640 0705 S.10 4 \$ 9  118 0p 0640 6701 4.74 4 \$ 0  119 NO 0640 0711 4.62 4 \$ 0  120 7 0840 0715 5.12 4 \$ 9  124 LV 6715 0720 4.75 3 \$ 7  125 0p 0701 0770 5.12 3 \$ 7  126 ND 0705 0770 5.39 3 \$ 7  127 JA 0705 0770 5.39 3 \$ 7  128 LV 0730 0715 4.46 3 6 7  132 0p 0770 0711 3.65 3 6 7  133 NB 070 0711 3.65 3 6 7  134 JA 070 0715 0820 4.88 4 6 7  136 0p 0711 0820 4.81 4 6 7  137 ND 0715 0820 4.85 4 6 7  138 JO 0710 0820 4.55 4 6 7  138 JO 0710 0820 7.51 4.65 4 6 7  140 0p 0820 0841 3.21 4 6 7  140 0p 0820 0841 3.21 4 6 7  140 0p 0820 0841 3.21 4 6 8	116	31	0615	0640	4.22		5		
119		LV		0705	5.10	4	5	1	
120 Jm 0840 076 5-12 4 5 9 124 W 6715 0700 4.78 3 5 7 125 -00 0701 0770 5-12 3 5 7 126 WB 0761 0770 4.45 3 5 7 127 Ja 0705 0770 5.37 3 5 7 128 W 0730 0715 4.46 3 6 7 132 00 0770 071 3.65 3 6 7 133 NB 0700 0711 4.48 3 6 7 134 Ja 0770 0711 3.21 3 6 7 135 W 0715 0820 4.87 4 6 7 136 00 0715 0820 4.87 4 6 7 138 Jo 0715 0820 4.55 4 6 7 139 W 0820 0845 3.21 4 6 7 149 00 00 0820 0845 3.21 4 6 8		Op	0640	6705	4.74		5	Q	
124 LU 6715 0720 4.79 3 5 7  125 -0p 0701 6770 5.12 3 5 7  126 MB 0701 0772 4.45 3 5 7  127 Ja 0705 0772 5.37 2 5 7  128 LU 0720 0715 4.46 3 6 7  132 0p 0770 071 3.65 3 6 7  133 NB 0720 0711 3 6 7  134 Ja 0720 0715 4.88 4 6 7  136 0p 0711 0820 4.88 4 6 7  137 NB 075 0820 4.88 4 6 7  138 Ja 075 0820 4.55 4 6 7  138 Ja 075 0820 4.55 4 6 7  139 LU 0820 0845 3.21 4 6 8  140 0p 0820 0845 3.21 4 6 8  141 NB 6820 0845 4.15 4 6		NO		0711	4-62				
125 -00 0701 0770 5-12 3 5 7 126 MB 0781 0770 4.45 3 5 7 12 12 12 12 12 12 12 12 12 12 12 12 12			0640	0765	5-12	- 1	5		
126		LW	0715		4.79	3	S	1	
127		-0p			5-12	3	5	-1	
128 LU 0720 0715 4.46 ] 6 17   132 0p 0770 0711 3.65 ] 6 17   133 NB 0770 0711 4.48 ] 6 17   134 JA 0770 0711 3.67 3.21 ] 6 7   131 U 0715 0820 4.87 4 6 7   132 U 0715 0820 4.26 4 6 7   137 NB 0711 0820 4.26 4 6 7   137 NB 0711 0820 4.55 4 6 7   138 JO 0820 0820 3.22 4 6 7   139 U 0820 0845 3.21 4 6 8   140 0p 0820 0845 3.21 4 6 8   140 0p 0820 0845 3.21 4 6 8   140 0p 0820 0845 3.21 4 6 8   141 NB 0820 0845 4.15 4 6 8   141 NB 0820 0845 4   141 NB 0820 0845 4		NB			4.45	3	5		
132 OP 0770 OTN 3.65 3 6 7  133 NB 070 0751 4.48 3 6 7  134 JA 0770 0770 0751 3.21 3 6 7  135 LV 0755 0820 4.87 4 6 M  136 OP 0755 0820 4.26 4 6 M  137 NB 0755 0820 4.26 4 6 M  138 JO 0755 0820 4.55 4 6 M  138 JO 0755 0820 4.65 4 6 M  139 LV 0820 0845 3.21 4 6 M  140 OP 0820 0845 3.21 4 6 M						2	5	7	
133 NB 070 0751 4.48 3 6 7  134 JA 0770 0755 3-21 3 6 7  135 LV 0755 0820 4.87 4 6 M  136 ap 0755 0820 4.26 4 6 M  137 NB 0755 0820 4.26 4 6 M  138 JO 0755 0820 7.55 4 6 M  139 LV 0820 0845 4.65 4 6 M  140 op 0820 0845 3.21 4 6 M  141 ND 6820 0845 4.15 4 6	,			0715	4.46	3		7	
133 NB 0170 0751 4.48 3 6 7  134 JA 0770 0755 3-21 3 6 7  135 LV 0755 0820 4.87 4 6 7  136 ap 0755 0820 4.26 4 6 7  137 NB 0755 0820 4.55 4 6 7  138 JO 0755 0820 7.55 4 6 7  139 LV 0820 0845 4.65 4 6 5  140 op 0820 0845 3.21 4 6 8		op			3.65		b	1	
135 LV 0755 0820 4.87 4 6 M 136 ap 0755 0820 4.26 4 6 M 137 NB 0755 0820 4.55 4 6 M 138 JO 0755 0820 3.22 4 6 M 139 LV 0820 0845 4.65 4 6 S 140 op 0820 0845 3.21 4 6 S 141 NB 6820 0845 4.15 4 6		NB			4-48	]	b	- 1	
136 ap 075 0820 4.26 4 6 7 137 ND 075 0820 4.55 4 6 7 138 TO 675 0820 3.22 4 6 7 139 LU 0820 0845 4.65 4 6 8 140 op 0820 0845 3.21 4 6 8 141 ND 6820 0845 4.15 4 6		27		6755	3-21	31	6	/	
137 ND OTS OPZO 4.55 4 6 1 138 JO OTS 0820 J.22 4 6 7 139 LU 0820 0845 4.65 4 6 5 140 OP 0820 0845 3.21 4 6 5 141 ND 6820 0845 4.15 4 6			0755		4.87	4	6	1	
138 JO 675 0820 3.22 4 6 7 139 LV 0820 0845 4.65 4 6 5 140 op 0820 0845 3.21 4 6 5 141 ND 6820 0845 4.15 4 6		ap		0820	4.26	YI	6	1	
139 LV 0820 0845 4.65 4 6 5 140 op 0820 0845 3.21 4 6 8 141 ND 6820 0845 4.15 4		ND			4.55	4	6		
140 op 0820 0840 3.21 4 6 81 141 ND 6820 0840 4.15 4 6		50			7.22	4.	6	19	
14/ 20 0820 0820 4.15 4 6		4	0820	0845	4-65	4	6	8	
1.10		06		0845	3.2/	4	6	8/	
142 Ja 0820 0840 321 016 0		ND			4.15		6		
		50		0840	3.61	9	6	8	
147 62 0845 0910 4.17 3 4 8	147	LW	0845			j	4	8	
144 op 0845 0910 3.44 3 9 8	144	op	0845	0910			9		

Attach Calibration Sheet

Attach site map showing grid ID

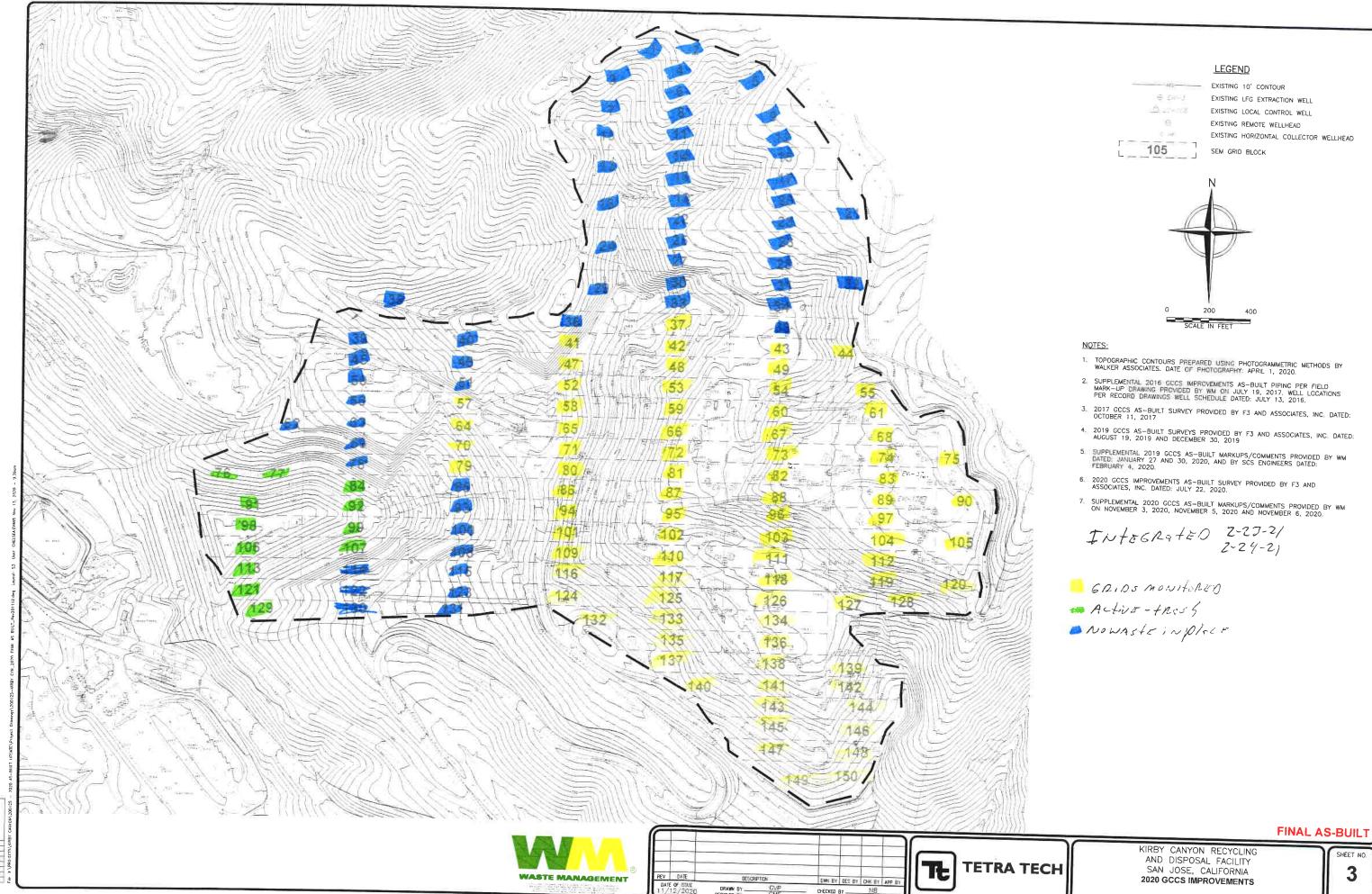
# KIRBY LANDFILL INTEGRATED LANDFILL SURFACE MONITORING

Personnel: Linghand	TESSE MENNING	
omen penecta		
MILL BENES		Cal. Gas Exp. Date: <u>9-21-21</u>
Date: <u>2-24~2/</u> Instrument Use	ed: 4/1000 G	rid Spacing: 2 /
Temperature: Precip:	Upwind BG: 24	Downwind BG: 3.0

GRID	STAFF	START	STOP	ТОС	WII	ND INFOR	RMATION	REMARKS
ID	INITIALS	TIME	TIME	PPM	AVG SPEED	MAX. SPEED	DIRECTION 16 POINT	KLHAKKS
145	NB	0845	0910	4.12	3	4	8	
146	500	0845	0810	7.99	3	4	8	
147	( v o p	0910	0935	4.50	2	3	la sat la	
148	op	0510	0831	3-61	<i>√</i>	3	19	
149	as	0910	0935	4.28	d	)	7	
150	71	0910	0930	3.96	2	3	7	
							a <sup>t</sup>	
	-							
	- 4							
					-			
1	ration Sho							

Attach Calibration Sheet Attach site map showing grid ID

Page 2 of 7



3 PROJECT NO

200125

SHEET NO.

SEM GRID MAP

#### **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:

INITIAL MONITORING PERFORMED BY: RES/WM FOLLOW-UP MONITORING PERFORMED BY: WM

LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Location	lı	nitial Monitorin	ıg	Correct	tive Action	10-Day Remonitoring		
	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech
Flare Station	02/23/21	ND	Leigh wade	-	-	-	-	-

ND= No 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/WM
FOLLOW-UP MONITORING PERFORMED BY: WM
LANDFILL NAME: Kirby Canyon Recycling & Disposal Facility

Location	In	itial Monitoring	9	Correc	tive Action	7-Day Remonitoring			
Location	Date	TOC (ppmv)	Tech	Date	Description	Date	TOC (ppmv)	Tech	
Flare Station	02/23/21	ND	Leigh wade	-	-	-	-	-	

ND= No Exceedances

# KCRDF Facility A1812

# LANDFILL NAME: 12,004 QUARTERLY LFG COMPONENT LEAK MONITORING

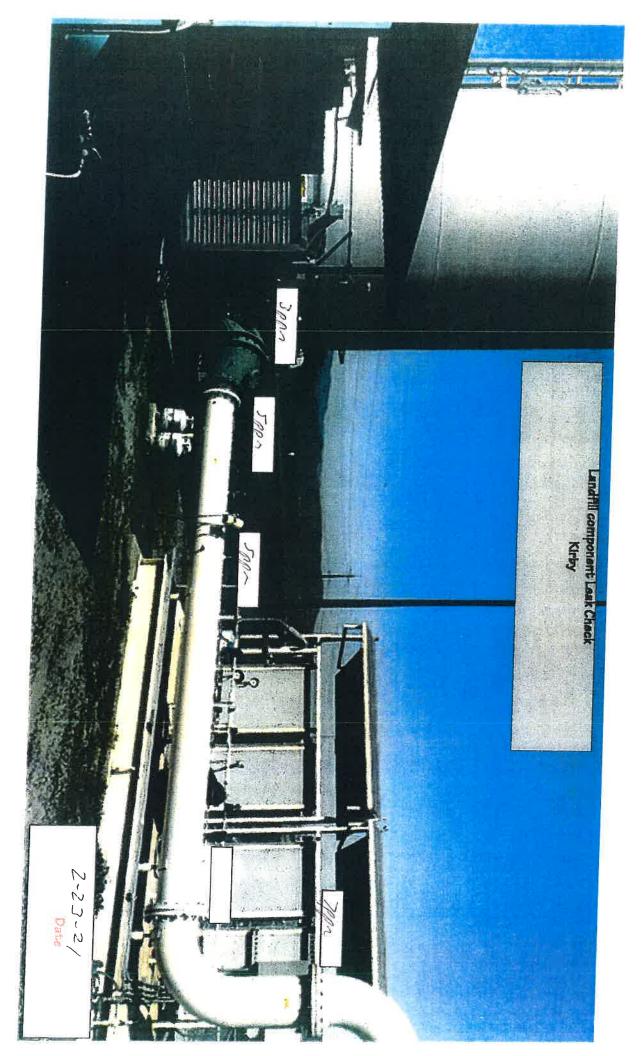
INSTRUMENT FID MAKE: Thermo Environr MODEL: TVA 1000 S/N: /ゥス63々くファフ

> DATE OF SAMPLING: 2-27-2/ TECHNICIAN: LEGA WARE

NOTE: Leaks over 500 ppmv methane are exceedances at any component containing landfill gas, pursuant to CARB 74, Subarticle 6, Section 95464(b)(1)(B).	In the event that an exceedance is detected, please intiate corrective action and re-monitor the exceedance location wi				220			Nocklospances	¥
v methane are exceed:	nce is detected, please								LEAK CONCENTRATION (ppmv)
ances at any compone	e intiate corrective acti								DATE OF DISCOVERY
ent containing land	on and re-monitor								TECHNICIAN
ifill gas, pursuant to CAR	the exceedance location								ACTION TAKEN TO REPAIR LEAK
3 Title 17 of Califo	within 7 days of th								DATE OF REPAIR
Title 17 of California Code of Regulations Subchapter 10, Article	thin 7 days of the initlal exceedance.								DATE OF ANY REQUIRED RE- MONITORING
s Subchapter 10, Article									RE-MONITORED CONCENTRATION (ppmv)

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

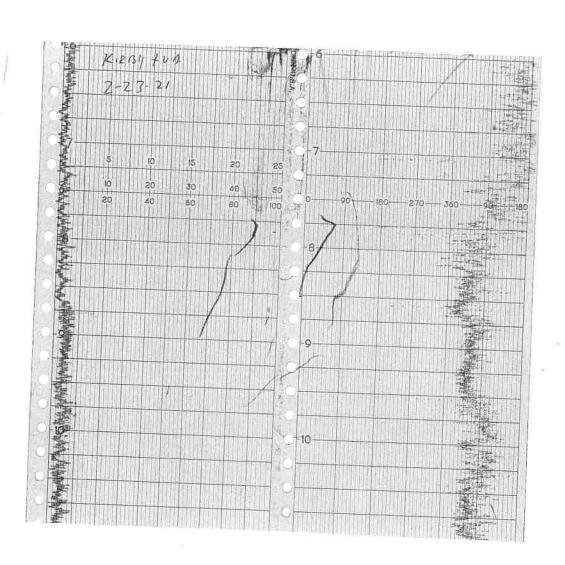




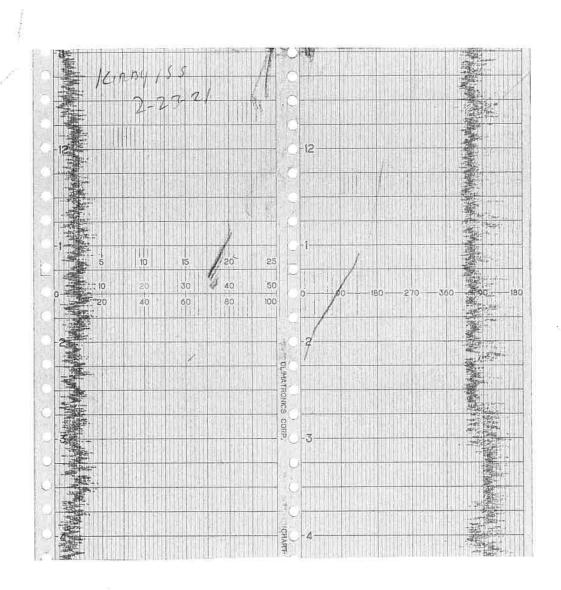
#### **Attachment D**

Weather Station Data

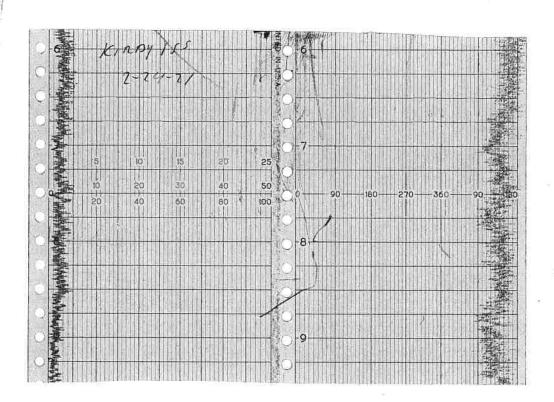
## **WIND SPEED & DIRECTION CHART ROLL**



### **WIND SPEED & DIRECTION CHART ROLL**



# **WIND SPEED & DIRECTION CHART ROLL**





	16-POINT V	VIND DIRECTION	N INDEX	
NO NO	DIRECTION		<u>DEGREES</u>	
		FROM	CENTER	<u>TO</u>
16	NORTH (N)	348.8	369,0	t (1.3
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	<u>067.5</u>	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	<u>157.5</u>	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	<u>247.</u> 5	258.8
12	WEST (W)	258.8	<u>270.0</u>	281.3
13	WEST-NORTHWEST (WNW)	281.3	292.5	303.8
14	NORTHWEST (NW)	30.3.8	315.0	326,3
15	NORTH-NORTHWEST (NNW)	326.3	337.5	348.8

#### Attachment E

Calibration Records



LANDFILL NAME/2	1204	1	INSTRUMENT MAKE _ f Horno					
MODEL: FUA 1000	EQUIPMENT #:	10	3	SERIAL #: 1036346773				
MONITORING DATE:	2-23-21		TIME:	0555				
Allow instrument to :     Introduce calibration     Adjust meter setting:	zero itself while introducing gas into the probe. Stabil s to read 500 ppm.	g dir. lized read	ding =	<i>р</i> рт				

#### **Background Determination Procedure**

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value:  (Upwind + Downwind) 2
2-4 ppm	3-0 ppm	2.7 <b>ppm</b>

Background Value = 2-7 ppm

#### INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Calibration Gas	Using	90% of the Stabili Reading	zed	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas		
#1	497	ppm	447	bbw	5		
#2	502	ppm	452	ppm	5		
#3	500	ppm	450	pộm	5		
	5	#DIV/0!					
					Must be less than	1 30 seconds	

#### CALIBRATION PRECISION RECORD

Calibration Gas Standard ≈ 500 ppm

Measurement #	Meter Reading for Zer	ro Air (A)	Meter Reading for Calibration Gas (B)		Calculate Precision [S	STD – (B)]
#1	0-27	ppm	49)	ppm	J	<del></del>
#2	0-15	ppm	502	ppm	2	
#3	0-07	ppm	508	ppm	9	
Calculate Precision	[STD-B1] + [ST	TD-B2] + [:	STD-B3] X 1 X 500	<u>100</u>	6-33	#DIV/0I
		-			Must be less than	10%

	Performed By	LOWGWADE	Date/Time	2-23-21	0.550
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LANDFILL NAME /ZIRBY	INSTRUMENT MAKE _ + HEARS				
MODEL #UA 1000 EQUIPMENT #:	11	E	SERIAL #:	1036346774	
MONITORING DATE: 2-23-2/	TIM	E:	0555		
Calibration Procedure:			ā		

#### Allow instrument to zero itself while introducing air.

2. Introduce calibration gas into the probe. Stabilized reading = 500 ppm

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	
2.4	ppm	3.0		ppm	2-5	ppm

Background Value = 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	6	
#2	506 ppm	456 pom	6	
#3	SOO ppm	410 ppm	6	
	Calculate Response Time (1	+2+3)	6 #DIV/0!	
			Must be less than 30 seconds	

#### CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zer	o Air (A)	Meter Reading for Calibration Gas (B)			
#1	0-38	ppm	492	ppm	8	
#2	0-27	ppm	506	ppm	4	
#3	0-14	ppm	500	ppm	0	
Calculate Precisio	on [STD-B1] + [ST	D-B2] + [3	STD-B3] X 1 X 500	<u>100</u> 1	0-93 Must be less than	#DIV/0!

Ferformed E ,	oman penalth	Date/Time	2-23-21	e sss



LANDFILL NAME	1C.RBY	INST	RUMENT	MAKE LAZARD	
MODEL FUATOOS	EQUIPMENT #:	12		SERIAL #: 163624674.	/_
	DL-23-21				
<ol><li>Introduce calibra</li></ol>	t to zero itself while introducir ation gas into the probe. Stat tings to read 500 ppm.	ng air. oilized reading	= 50	D ppm	

#### B

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value:  (Upwind + Downwind) 2	
2.4 ppm	3.0 ppm	2.7 ppm	

Background Value = 2.7 ppm

#### INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas	90% of the Stabilize Reading	zed	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas	
#1	489 ppm	439	ppm	6	
#2	507 ppm	452	ppm	L	
#3	SOO ppm	450	ppm	6	
	Calculate Response Time (1	+2+3)		6	#DIV/0!
	200-			Must be less that	n 30 seconds

#### CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #	Meter Reading for Zer	r Reading for Zero Air (A) Meter Reading for Calibration Gas (B)				STD - (B)]
#1	6-27	ppm	489	ppm	1./	
#2	0-15	ppm	502	ppm	2	
#3	0.09	ppm	500	ppm	0	
Calculate Precision	[STD-B1] + [ST	D-B2] + [5	STD-B3] X 1 X 500	<u>100</u>	0.86	#DIV/GI
					Must be less that	10%

Ferformed B, NICIC BOXICS Date/Time	2-27-2/	0555
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LANDFILL NAME /CIRBY	INSTRUMENT MAKE _ + Honro
MODEL FUA 1000 EQUIPMENT #:	13 SERIAL #: 1/62746775
MONITORING DATE: Z-23-2/	TIME: DSSS
Allow instrument to zero itself while introducing a Introduce calibration gas into the probe. Stabiliz Adjust meter settings to read 500 ppm.	air. red reading = <u>/ Ø ð</u> ppm

#### **Background Determination Procedure**

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value:  (Upwind + Downwind) 2
Z.4 ppm	3.0 ppm	2.> ppm

Background Value = 2.7 ppm

#### INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Reading Using Calibration Gas		90% of the Stabili Reading	zed	Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas	
#1	507	ppm	457	ppm	6	
#2	500	ppm '	450	pom	6	
#3	500	ppm	450	p <b>pm</b>	6	
	Calculate Response Ti	me ( <u>1</u> -	+2+3)		6	#DIV/0!
					Must be less than	30 seconds

#### CALIBRATION PRECISION RECORD

Calibration Gas Standard = 500 ppm

Measurement #			Meter Reading for Calibration Gas (B)		Calculate Precision [STD - (B)]	
#1	0-20	ppm	50)	ppm	7	
#2	0-14	ppm	500	ppm	O	
#3	0-10	ppm	500	ppm	5	
Calculate Precision	[STD-B1] + [S	TD-B2] + [: 3	STD-B3] X <u>1</u> X 500	<u>100</u> 1	0.46 #DIV	
					Must be less than 10%	

Ferfamed By	JESSE MENNING	Date/Time	2-23-210	0555



3-0

LANDFILL NAME:/C	insy	INSTRUMENT	MAKE: + HERRO
MODEL: EVA 1000	EQUIPMENT #:	10	SERIAL #: 1036346773
MONITORING DATE:	2-23-2/	TIME:	1105
Calibration Procedure:			
<ol> <li>Allow instrument I</li> <li>Introduce calibrate</li> <li>Adjust meter setti</li> </ol>	to zero itself while introducing ion gas into the probe. Stabilizings to read 25 ppm.	air. zed reading = 2	∑ ppm
Background Determination	on Procedure		
Upwind Background Reading:	Downwind Background Reading:	Background Valu	ie:
(Highest in 30 seconds)	(Highest in 30 seconds)	(Upwind + Down	nwind)

ppm

ppm

Background Value = \_\_\_ Z · > \_\_ ppm

2.4

#### **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	2.5 ppm	27.5	ppm	5	
#3	22 ppn	77.5	ppm	,	
	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 Zer			g for as (B)	Calculate Precision [STD - (B)]	
#1	0-34	ppm	2.4	ppm	/	
#2	0-17	ppm	21	ppm	0	
#3	0-10	ppm	7.5	ppm	d	
Calculate Precision	on [STD-B1] + [ST	TD-B2] + [3	STD-B3] X 1 25	X <u>100</u> 1	, /. J	#DIV/0!
					Must be less th	nan 10%



MODEL: +UA1000	EQUIPMENT #:	//	SERIAL	#: 1036346774
Calibration Procedure:  1. Allow instrument to	o zero itself while introducing a on gas into the probe. Stabilizings to read 25 ppm.	vir		
Background Determination	on Procedure			
Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Valu (Upwind + Down 2	1	54 ,85
2. 4 ppm	7.0 ppm	7-7	ppm	

#### INSTRUMENT RESPONSE TIME RECORD

Background Value = 2.7

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	27	ppm	70.7	ppm	6	
#2	25	ppm	225	ppm	6	
#3	7.3	ppm	27.5	ppm	6	
8	Calculate Response	Time (1	+2+3)		6	#DIV/0!
			. y		Must be less th	an 30 seconds

2->

#### **CALIBRATION PRECISION RECORD**

Calibration Gas Standard = 25 ppm

Meter Reading for Zero	er Reading for Zero Air (A) Meter Reading for Calibration Gas (B)		Calculate Precision [STD – (		
0.29	ppm	27	ppm	Z	
0-20	ppm	25	ppm	0	
0-13	ppm	25	ppm	0	
on [STD-B1] + [ST	D-B2] + [: 3	STD-B3] X 1 25	X <u>100</u> 1	. 2.6	#DIV/0!
	0.29	0-29 ppm 0-20 ppm 0-13 ppm	Calibration G  0.29 ppm 27  0.20 ppm 27  0.13 ppm 27  on [STD-B1] + [STD-B2] + [STD-B3] X 1	Calibration Gas (B)         O.29       ppm       27       ppm         0-20       ppm       27       ppm         0-13       ppm       27       ppm         on       [STD-B1] + [STD-B2] + [STD-B3]       X 1 X 100	Calibration Gas (B)  O . 2 9

oman	PERSCHA	Date/Time:	2-27-21	-110is.
	oman	omenponacta	Omanpenalta Date/Time:	OMERPERSCHA Date/Time: 2.27-21



LANDFILL NAME:/C	LINDY	INSTRUMENT M	AKE: +HEM	D
MODEL: +VA1000	EQUIPMENT #:	12	SERIAL #: 107	624674/
MONITORING DATE:	2-23-2/	TIME:/	105	
Calibration Procedure:				
<ol> <li>Allow instrument to</li> <li>Introduce calibration</li> <li>Adjust meter setting</li> </ol>	o zero itself while introducing a on gas into the probe. Stabiliz ngs to read 25 ppm.	nir. ed reading = 2 5	ppm	
Background Determination	on Procedure			
Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value: (Upwind + Downwi	ind)	*
7.4 ppm	7. <i>0</i> ppm	7,7	ppm	

#### INSTRUMENT RESPONSE TIME RECORD

Background Value = 2. >

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	>	
#2	24	ppm	246	ppm	7	
#3	75	ppm	27.5	ppm	7	
	Calculate Respons	e Time (1	+2+3)		>	#DIV/0!
			4		Must be less tha	an 30 seconds

ppm

#### CALIBRATION PRECISION RECORD

Calibration Gas Standard = 25 ppm

Measurement #	Meter Reading for Zer	o Air (A)	Meter Reading for Calibration Gas (B)		Calculate Precision [STD – (B)	
#1	0-37	ppm	76	ppm	1	
#2	0-24	ppm	24	ppm	/	
#3	0-16	ppm	25	ppm	0	
Calculate Precision	n [STD-B1] + [S1	[STD-B1] + [STD-B2] + [STD-B3] X 1 X 100 3 25 1			.26	#DIV/0!
				·	Must be less t	nan 10%

Performed By: Wick Banks	_Date/Time:	2-23-21-1105
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			6
LANDFILL NAME:		INSTRUMENT MA	KE: + HEnro
MODEL: KVA1000	EQUIPMENT #:	/3	BERIAL #: 1162746775
MONITORING DATE:	7 1	TIME://	
Introduce calibrat     Adjust meter sett	The second secon	air. zed reading = 2 3	ppm
Background Determinati			
Upwind Background Reading:	Downwind Background Reading:	Background Value:	
(Highest in 30 seconds)	(Highest in 30 seconds)	/I Inwind & Downwin	od\

ppm

2.7

ppm

Background Value = 20 ppm

2.4

#### INSTRUMENT RESPONSE TIME RECORD

ppm

3.0

Measurement #	Stabilized Readin Calibration Gas	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	27	ppm	20.7	ppm	>		
#2	24	ppm	7.1.6	ppm	7		
#3	75	ppm	27-5	ppm	7		
	Calculate Response	Time (1	<u>+2+3</u> )		7	#DIV/0!	
					Must be less tha	n 30 seconds	

#### **CALIBRATION PRECISION RECORD**

Measurement #	Meter Reading for Zer	o Air (A)	Meter Reading Calibration G	-	Calculate Precision	[STD - (B)]
#1	0.16	ppm	2.7	ppm	2	
#2	0.11	ppm	24	ppm	<b>a</b>	
#3	0.09	ppm	25	ppm	0	
Calculate Precision	on [STD-B1] + [ST	TD-B2] + [: 3	STD-B3] X <u>1</u> 25	X <u>100</u> 1	Must be less that	#DIV/0!

Performed By:	tosse	MENNINS	Date/Time:	2-27-21-1	1/65.
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LANDFILL NAME: /C, MODEL: +VA 160	EQUIPMENT #:	10	MAKE: +411100 _SERIAL#: 10363467	773
MONITORING DATE:	2-24-71	TIME:	0545	
Introduce calibrat     Adjust meter setti  Background Determination	on Procedure	ed reading = 2 5		
Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value (Upwind + Down) 2		

ppm

2.7

ppm

Background Value = 2-7 ppm

#### INSTRUMENT RESPONSE TIME RECORD

ppm

3.0

Measurement #	Calibration Gas Reading		Time to Reach 96 Stabilized Reading switching from 2 Calibration Gas	ng after		
#1	24	ppm	21,6	mqq	5	
#2	23	ppm	771	ppm	5	
#3	25	ppm	7715	ppm	5	
	Calculate Response	Time (1	+2+3)		<i>-</i>	#DIV/0!
					Must be less than	30 seconds

#### CALIBRATION PRECISION RECORD

Measurement #	Meter Reading for Ze	ero Air (A)	Meter Reading Calibration Ga		Calculate Precision	[STD - (B)]
#1	0-18	ppm	24	ppm	1	
#2	0-14	ppm	2/	ppm	0	
#3	0.07	ppm	20	ppm	0	
Calculate Precision	[STD-B1] + [S	TD-B2] + [	STD-B3] X 1 )	100	. 1.3	#DIV/0!
				,	Must be less th	an 10%

Performed By:	CEISLUADE	Date/Time:	7-24-2/-0545	
				_



LANDFILL NAME: _/C	RBY	INSTRUMENT	MAKE: HHARD	
MODEL: +VA 100	2-24-21	//	SERIAL #: _10363	146774
Calibration Procedure:  1. Allow instrument 2. Introduce calibrat 3. Adjust meter setti	to zero itself while introducing tion gas into the probe. Stabili ings to read 25 ppm.	air. zed reading =	) ppm	
Background Determinati	on Procedure			
Upwind Background Reading:	Downwind Background	Background Val	ue:	

Reading: (Highest in 30 se		Downwind Back Reading: (Highest in 30 sec		Background Value (Upwind + Dow 2	
7.4	ppm	7.0	ppm	2.7	ppm

Background Value = 2.7 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	2007	ppm	5	
#2	25	ppm	22.5	ppm	5	
#3	2.5	ppm	275	ppm	5	
	Calculate Response	Time (1	+2+3)		5	#DIV/0!
					Must be less than	30 seconds

### CALIBRATION PRECISION RECORD

Measurement #	Meter Reading for Ze	ro Air (A)	Air (A) Meter Reading for Calibration Gas (B)		Calculate Precision [STD – (B)]
#1	0.28	ppm	20	ppm	2
#2	0.16	ppm	25	ppm	o
#3	0.08	ppm	25	ppm	0
Calculate Precision	[STD-B1] + [S	TD-B2] + [5	STD-B3] X 1 25	X <u>100</u> 1	, 7.6 #DIV/0!
					Must be less than 10%

Performed By:	brich	penalfa	Date/Time: _	7-24-21	-0545
- 1	7				



7.0

LANDFILL NAME:	irby	INSTRUMENT	MAKE: +	Yenno
MODEL: FUA 1000	EQUIPMENT #:	12	SERIAL #:	103624674/
MONITORING DATE:	2-24-7/	TIME:	0545	
Calibration Procedure:				
<ol><li>Introduce calibrat</li></ol>	to zero itself while introducing ion gas into the probe. Stabi ngs to read 25 ppm.	g air. lized reading =	ppm	
Background Determination	on Procedure			
Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Valu	1	

ppm

2,7

ppm

Background Value = 27 ppm

2.4

#### INSTRUMENT RESPONSE TIME RECORD

ppm

Measurement #	Stabilized Reading Us Calibration Gas	ing	90% of the Stabili Reading	ized	Time to Reach Stabilized Read switching from Calibration Ga	ding after Zero Air to
#1	24	ppm	21,6	ppm	7	
#2	24	ppm	21.6	ppm	)	
#3	25	ppm	27,5	ppm	7	-
	Calculate Response Time	3 (1	+2+3)		7	#DIV/0!
			/ 		Must be less tha	an 30 seconds

### CALIBRATION PRECISION RECORD

Measurement #	Meter Reading for Z	ero Air (A)	Meter Reading Calibration G	_	Calculate Precision	[STD - (B)]
#1	0.34	ppm	24	ppm	/	
#2	0.19	ppm	24	ppm	/	
#3	0-11	ppm	25	ppm	0	
Calculate Precision	[STD-B1] + [S	STD-B2] + [3	STD-B3] X 1 25	X <u>100</u>	, Z. 6	#DIV/0!
				'	Must be less th	an 10%

Performed By:	NICK	Berles	Date/Time:	2-24-21	1-654.	5



LANDFILL NAME KIRBY	INSTRUMENT MAKE + Horn 6
MODEL: FUR 1000 EQUIPMENT #: /	3 SERIAL #: 1102746775
MONITORING DATE Z-24-7]	TIME:O545
Calibration Procedure:	
Allow instrument to zero itself while introducing air.     Introduce calibration gas into the probe. Stabilized a Adjust material and the probe.	reading = "2" one
<ol> <li>Adjust meter settings to read 25 ppm.</li> </ol>	ppm ppm

## Background Determination Procedure

Upwind Background Reading: (Highest in 30 seconds)	Downwind Background Reading: (Highest in 30 seconds)	Background Value:  (Upwind + Downwind)		
Z. 4 ppm	3.0 ppm	22	ppm	

Background Value = 27 ppm

## INSTRUMENT RESPONSE TIME RECORD

Measurement #	Stabilized Readin Calibration Gas	g Using	90% of the Stabi Reading	lized	Time to Reach Stabilized Reac switching from Calibration Gas	ling after Zero Air to
	<u>a</u> 3	ppm	20.7	ppm	6	
#2	24	ppm	21.6	ppm	1	
#3	75	ppm			6	
	Calculate Response		77.5 •2+3)	ррт	Must be less tha	#DIV/

## CALIBRATION PRECISION RECORD

Measurement #	Meter Reading for Z	ero Air (A)	Meter Readin Calibration G		Calculate Precision	[STD - (B)]
#1	0.70	ppm	2.7	ppm	7	
#2	0-16	ppm	74	ppm		
#3	0:1/	ppm	7	ppm	7	
Calculate Precision	n [STD-B1] + [S	STD-B2] + [5 3	STD-B3] X <u>1</u> 25		, 40 Must be less that	#DIV/0

Dorformed D.	Tics				
Leugimed BA.	J201e	ACRAINS	Date/Time	2-24-21	-0595
	100	0			

## CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Canyon Landfill Date: 3/3/21
Time: AM <u>3:21</u> 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 = $500 \text{ ppm}$
3. Adjust meter to read 500 ppm.
Background Determination Procedure
1. Upwind Reading (highest in 30 seconds):6 ppm (a)
2. Downwind Reading (highest in 30 seconds): 4 ppm (b)
Calculate Background Value:
$\frac{(a) + (b)}{2} \qquad \text{Background} = \underline{\qquad \qquad 5 \qquad \text{ppm}}$

Performed by: Markus Bernard

## CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Canyon Landfill Date:	3/23/21
Time: 11:35 AM PM	
Instrument Make: Thermo Scientific Model:	TVA 1000 S/N: 0928538411
<u>Calibration Procedure</u>	
1. Allow instrument to internally zero itself while intro	oducing zero air.
2. Introduce the calibration gas into the probe.	
Stable Reading = $\phantom{00000000000000000000000000000000000$	
3. Adjust meter to read 500 ppm.	
Background Determination Procedure	
1. Upwind Reading (highest in 30 seconds):	6 ppm (a)
2. Downwind Reading (highest in 30 seconds):	4 ppm (b)
Calculate Background Value:	
$\frac{(a) + (b)}{2} \qquad \text{Background} = \underline{\qquad \qquad 5} \qquad \text{ppm}$	

Performed by: Markus Bernard

## **CALIBRATION PRECISION TEST RECORD**

Date: 3/3/2021
Expiration Date (3 months): 6/2/2021
Time: <u>8:48</u> 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: ppm (c)
Meter Reading for Calibration Gas: 498ppm (d)
Measurement #3:
Meter Reading for Zero Air: 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: <u>3/3/21</u>		
Expiration Date (3 months): <u>6/2/21</u>		
Time: <u>8:48</u> AM PM		
Instrument Make: <u>Thermo Scientific</u> Model: <u>TVA 1000</u>	_ 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		_ 1 1
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		_ FF
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:		
$\frac{(a) + (b) + (c)}{3} = \frac{8}{3}$ seconds (must be less than 30 seconds)	econds)	
Performed by: M. Bernard		



#### INTERMOUNTAIN SPECIALTY GASES

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

#### CERTIFICATE OF ANALYSIS

<u>Composition</u> <u>Certification</u> <u>Analytical Accuracy</u>

Air - Zero

THC <2 PPM

Oxygen 20.9%  $\pm 2\%$ 

Nitrogen Balance

Lot # 19-6779

Mfg. Date:

4/3/2019

Parent Cylinder ID

001739, 02268

Number:

#### **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





#### INTERMOUNTAIN SPECIALTY GASES

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

#### CERTIFICATE OF ANALYSIS

Composition

Certification

**Analytical Accuracy** 

Methane

25 ppm

 $\pm 5\%$ 

Air

Balance

Lot #

17-6074

Mfg. Date:

10/16/2017

Parent Cylinder ID

17161

Number:

### 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



## Intermountain Specialty Gases

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



"Your calibration gas manufacturer since 1992"

### CERTIFICATE OF ANALYSIS

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

Lot# 20-7497

Mfg. Date: 7/10/2020

**Expiration Date:** 

Transfill Date: see cylinder

Parent Cylinder ID TWC001763

Number:

### 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

7/10/2020

Title: Certificate Date:

Quality Assurance Manager

Methane (0.0 Service itation (Mole%) Accuracy +/- 2% CONTAINS GAS UNDER PRESIDE Read label before use Yes, or you label at hand. Use execution Do not handle unit at sales per protective gloves, protective gloves, protected the #0 70°F and 1,000 PSIG Use a back flowproverse seems slowly. Close valve after set as surninght when artifers a seem as a surninght when artifers a seems a seems as a see Lot#: 20-7497 P/N:23-0500 Dispose of contact argy DO NOT REMOVE THE PROP Federal law fortids transport 103 L 5124). Federal law process of tenue, Irvine, CA 92614 201-8150 Fax (949) 757-0363 103 L Mar Nitrogen

## **Intermountain Specialty Gases**

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



"Your calibration gas manufacturer since 1992"

## CERTIFICATE OF ANALYSIS

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

Lot # 18-6641

Mfg. Date: 12/18/2018

**Expiration Date:** 

Transfill Date: see cylinder

Parent Cylinder ID 001763

Number:

#### Method of Preparation:

Gravimetric/Pressure Transfilled

## Method of Analysis:

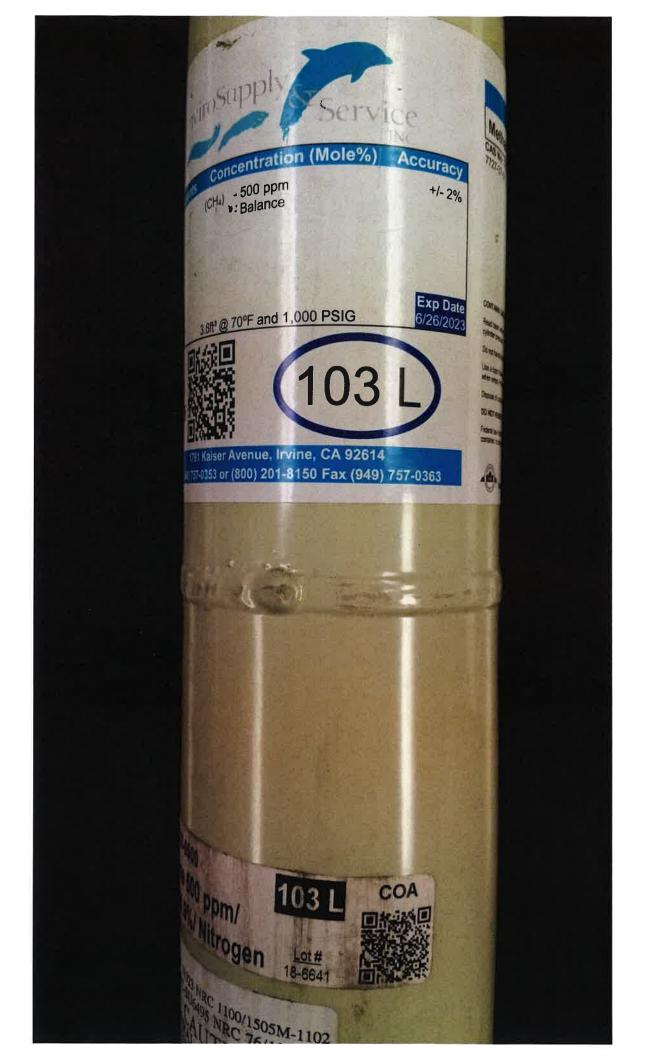
The parent mix was prepared gravimetrically and is traceable to the NIST by certified weights (ID #CA10814) used to calibrate the scale.

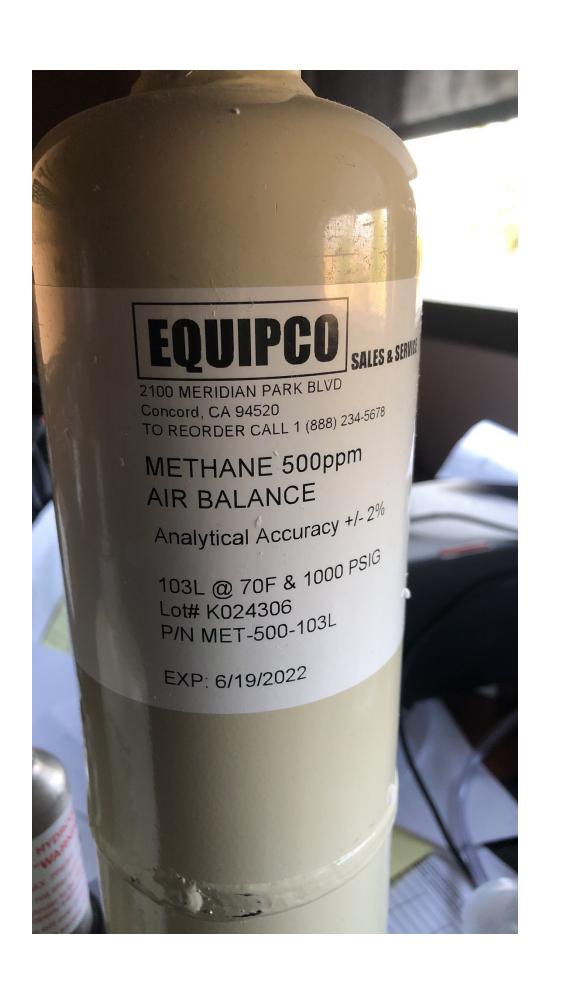
Analysis By:

Tony Janquart

Title: Certificate Date:

Quality Assurance Manager 12/18/2018







## SURFACE EMISSION MONITORING INSTRUMENT CALIBRATION LOG

Site:			
Purpose:			
Operator:			
Date: 2-6-2-1	Time:	0930	
Serial # 10 103 63 46 773			
Model # 10 103 6346 773		·	

INSTRUMENT INTEGRITY	CHECKLIST	INSTR	RUMENT CALIBRA	ATION
		CALIBRATION CHECK		CK
Battery test	Pass)/ Fail	Calibration Gas (ppm)	Actual	% ^~~~~~~~~
Reading following ignition		·	(ppm)	Accuracy
Leak test	Pass / Fail / NA	500	800	100%
			RESPONSE TIME	
Clean system check (check valve chatter)	Pass / Fail / NA	Calibration Gas, p	opm S	500
ŕ	<b>6</b> ) (5-3) (NA	90% of Calibration	n Gas, ppm	450
H <sub>2</sub> supply pressure gauge (acceptable range 9.5 - 12)	Pass / Fail / NA	Time required to a	attain 90% of Cal G	as ppm
- ,	1-9-1-1	2.	)	
Date of last factory calibration	1-1-0	3. 7		2.
Factory calibration record	Pass / Fail		3	(2)
w/instrument within 3 months		Equal to or less th		Ø N
		Instrument calibra	ited to <u>CUY</u>	_gas.

Comments:	



## SURFACE EMISSION MONITORING INSTRUMENT CALIBRATION LOG

Site:				
Purpose:				
Operator:	W M			
Date: 2-6-21		Time:	0945	
Model # 1000 B				
Serial ## 11 1036346	724			
INSTRUMENT INTEGRITY	CHECKLIST	INSTR	UMENT CALIBRA	TION
		CA	LIBRATION CHEC	K
Battery test	Pass / Fail	Calibration	Actual	%
Reading following ignition	_2,6 ppm	Gas (ppm)	(ppm)	Accuracy
reading tollowing ignition		500	500	1004
Leak test	Pass / Fail / NA			(00)
Clean system check	Pa₃s / Fail / NA	1	RESPONSE TIME	
(check valve chatter)	(ass/I all/IVA	Calibration Gas, p	pm	\$ <i>00</i>
	Co	90% of Calibration		450
H <sub>2</sub> supply pressure gauge	Pass / Fail / NA		ttain 90% of Cal G	as ppm
(acceptable range 9.5 - 12)		1	)	
Date of last factory calibration	1-9-21	2	<u> </u>	57
	6	3/	3	
Factory calibration record w/instrument within 3 months	Pass// Fail	Equal to or less th	an 30 seconds?	₽ N
William S Hondis		Instrument calibra		gas.
Comments:				



## SURFACE EMISSION MONITORING INSTRUMENT CALIBRATION LOG

Site:				
Purpose:				
Operator:	U M			
Date: 2-6-21		Time:	(000	
Model # + VA 1000 13				
Serial # #12 (0362)	16741			
INSTRUMENT INTEGRITY	Y CHECKLIST	INSTF	RUMENT CALIBRA	TION
<u>*</u>	0		ALIBRATION CHEC	CK
Battery test	Pass / Fail	Calibration Gas (ppm)	Actual	%
Reading following ignition		Cas (ppiii)	(ppm)	Accuracy
_eak test	Pass / Fail / NA	500	500	100/
LOUN (CS)	Pass/Fall/INA		RESPONSE TIME	
Clean system check	Pass / Fail / NA			
check valve chatter)		Calibration Gas, p 90% of Calibration		450
H <sub>2</sub> supply pressure gauge	Pass / Fail / NA	1	attain 90% of Cal G	
acceptable range 9.5 - 12)	U	1.	7	аз рріп
Date of last factory calibration	1-9-21	2.		9
-	~	3.	7	
Factory calibration record  v/instrument within 3 months	Fase / Fail	Average <u>6</u> Equal to or less the	an 30 seconds?	(D N
William Strong S		Instrument calibra		gas.
Comments:				



## SURFACE EMISSION MONITORING INSTRUMENT CALIBRATION LOG

Site: Purpose:				
Operator:	Mu ()	U		
Date: 2-6-21		Time:	1015	
Model # <u> </u>	146775			
INSTRUMENT INTEGRITY	Y CHECKLIST	INST	RUMENT CALIBRA	TION
	an an		ALIBRATION CHEC	K
Battery test	Pass / Fail	Calibration	Actual	%
Reading following ignition	2.6 ppm	Gas (ppm)	(ppm)	Accuracy
_eak test	eass / Fail / NA	500	500	100%
Clean system check	Pass / Fail / NA		RESPONSE TIME	500
check valve chatter)		Calibration Gas, p	, Pill	
H <sub>2</sub> supply pressure gauge	Pass / Fail / NA	90% of Calibration	n Gas, ppm <u> </u>	250 as nom
(acceptable range 9.5 - 12)		1. /		ао ррт
Date of last factory calibration	1-9-21	2. <u>7</u>		**
Factory calibration record w/instrument within 3 months	Fass/Fail	Average		Ø N gas.
Comments:				

# Environmental Inc.

CUSTOMER:	S Vait #10	<del></del> «
SERIAL NUMBER:	1036346713	
TECHNICIAN:		1-9-21

## GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

	F	ID	
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	12,64	< 3
	PII	D .	
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS_(ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50	1	+/- 12.5
100	100	/	+/- 25
500	500		+/- 125
<1	ZERO GAS		< 3

# TVA1000B CALIBRATION VERIFICATION Environmental Inc.

CUSTOMER:	RES Vait #	- [[	
SERIAL NUMBER:_	10363467	24	
TECHNICIAN:	Mr Mar	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	(00	+/- 25						
500	500	500	+/- 125						
10000	10000	10,101	+/- 2500						
<1	ZERO GAS	0,69	< 3						
	PI	<b>D</b>							
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	1	< 3						

# Environmental Inc.

CUSTOMER:	Pi	25 U	WIT # 12	
SERIAL NUMBER: _		103	36246741	
TECHNICIAN:	M	M	DATE: _	1-9-21

## GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

	F	ID		
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		
	PII	D ::		
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	

# Environmental Inc.

CUSTOMER: MES CRUT	# 13	
SERIAL NUMBER:	195	
TECHNICIAN:	DATE:	1-9-20

## GAS CALIBRATION CHECK (PERFORMED AT ROOM TEMPERATURE)

	F	ID	
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
	PI	<b>D</b> 2.	
ISOBUTYLENE GAS NOMINAL (ppm)	CALIBRATION GAS_(ppm)	TVA READING (ppm)	TOLERANCE (ppm)
50	50	1	+/- 12.5
100	100		+/- 25
500	500		+/- 125
< 1	ZERO GAS		< 3

# APPENDIX G COMPONENT LEAK CHECK REPORTS

## KIRBY CANYON RECYCLING & DISPOSAL FACILITY, San Jose, CA FIRST QUARTER 2021 LFG COMPONENT LEAK MONITORING

INSTRUMENT FID

MAKE: Photo Scientific DATES OF SAMPLING: February 23, 2021

MODEL: TVA 1000 FIELD TECHNICIANS: Leigh Wade

S/N: 1036346773

LOCATION OF LEAK	LEAK CONCENTRATION (ppmv)	DATE OF DISCOVERY	TECHNICIAN	ACTION TAKEN TO REPAIR LEAK	DATE OF REPAIR	DATE OF ANY REQUIRED RE- MONITORING	RE-MONITORED CONCENTRATION (ppmv)					
	NO EXCEEDANCES WERE DETECTED DURING THE FIRST QUARTER 2021 MONITORING EVENT											

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.

ND = Not Detected

## KIRBY CANYON RECYCLING & DISPOSAL FACILITY, San Jose, CA SECOND QUARTER 2021 LFG COMPONENT LEAK MONITORING

NSTRUMENT	FID	
MAKE:	Photo Scientific	DATES OF SAMPLING: May 18, 2021
MODEL:	TVA 1000	FIELD TECHNICIANS: Leigh Wade
S/N·	1036346773	

LOCATION OF LEAK	LEAK CONCENTRATION (ppmv)	DATE OF DISCOVERY	TECHNICIAN	ACTION TAKEN TO REPAIR LEAK	DATE OF REPAIR	DATE OF ANY REQUIRED RE- MONITORING	RE-MONITORED CONCENTRATION (ppmv)					
	NO EXCEEDANCES WERE DETECTED DURING THE SECOND QUARTER 2021 MONITORING EVENT											

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.

ND = Not Detected

# APPENDIX H MONTHLY SOLID WASTE PLACEMENT TOTALS

#### **Solid Waste Placement Totals**

January 1, 2021 through June 30, 2021

January	Disposed	February	Disposed	March	Disposed	April	Disposed	Мау	Disposed	June	Disposed
Total in Tons	21,063		19,197		19,432		17,984		16,625		17,423

Total Disposed January 1, 2021 through June 30, 2021

111,724

# APPENDIX I WELLFIELD MONITORING LOGS

Wellfield Monitoring Report - January 12, 13, and 14, 2021

<b>.</b> . :-		CH₄	CO <sub>2</sub>	O <sub>2</sub>	Balance	Initial	Adjusted	Initial	Adjusted
Device ID	Date Time	% by Volume	% by Volume	% by Volume	% by Volume	Temperature (degrees F)	Temperature (degrees F)	Pressure (in. w.c.)	Pressure (in. w.c.)
KCLC0108	1/14/21 9:58 AM	46.6	34.2	3.5	15.7	58.6	58.6	-4.0	-4.0
KCLC0109	1/14/21 9:50 AM	47.9	37.2	0.1	14.8	93.8	101.5	-53.1	-53.9
KCLC0110	1/14/21 9:43 AM	51.9	38.3	0.1	9.7	113.7	113.7	-51.8	-52.1
KCLC0111	1/14/21 8:54 AM	57.0	41.4	0.4	1.2	101.9	102.2	-52.1	-52.1
KCLC0112	1/14/21 8:49 AM	49.6	39.3	0.1	11.0	115.3	115.3	-51.1	-51.1
KCLC0139	1/12/21 4:32 PM	56.9	43.1	0.0	0.0	108.8	108.8	-38.5	-38.5
KCLC0140	1/12/21 3:53 PM	40.4	36.6	0.1	22.9	104.7	103.4	-2.4	-1.5
KCLC0141	1/14/21 1:08 PM	38.7	33.8	0.1	27.4	92.0	90.9	-0.7	-0.4
KCLC0142	1/13/21 8:14 AM	24.8	28.5	0.1	46.6	100.0	96.4	-0.4	-0.2
KCLC0143	1/12/21 3:22 PM	38.6	34.6	0.1	26.7	94.9	92.9	-1.7	-0.8
KCLC0143	1/13/21 7:58 AM	34.8	33.4	0.0	31.8	102.1	98.3	-0.8	-0.3
KCLC0144	1/13/21 3:03 PM	56.4	42.0	0.1	1.5	91.8	92.0	-46.0	-46.0
KCLC0145	1/13/21 10:41 AM	56.0	41.4	0.5	2.1	77.0	77.1	-47.7	-47.8
KCLC0146	1/13/21 10:33 AM	57.8	42.2	0.0	0.0	67.1	69.6	-47.8	-47.8
KCLC0147	1/13/21 10:28 AM	57.9	42.1	0.0	0.0	93.8	93.8	-44.2	-43.7
KCLC0148	1/13/21 10:45 AM	54.0	40.3	0.6	5.1	59.9	59.9	-47.7	-48.5
KCLC0149	1/13/21 10:51 AM	53.9	42.6	0.0	3.5	83.9	84.4	-3.5	-4.5
KCLC0151	1/13/21 10:23 AM	51.1	40.5	0.0	8.4		107.1	-22.4	-22.3
						107.1			
KCLC0152	1/13/21 10:19 AM	37.6	34.4	0.0	28.0	108.7	108.2	-13.0	-11.9
KCYN0014	1/14/21 9:10 AM	43.9	29.6	0.0	26.5	90.8	90.7	-2.7	-2.7
KCYN0027	1/12/21 11:16 AM	48.2	38.7	0.0	13.1	115.5	115.4	-22.0	-21.4
KCYN0037	1/12/21 4:59 PM	45.0	34.3	4.2	16.5	59.5	59.3	-4.0	-4.0
KCYN0048	1/14/21 8:39 AM	44.9	37.3	0.0	17.8	118.6	118.9	-0.8	-0.8
KCYN0051	1/12/21 4:13 PM	54.1	41.6	0.6	3.7	101.1	101.3	-40.6	-37.4
KCYN0054	1/14/21 3:22 PM	57.1	42.9	0.1	-0.1	79.2	78.9	-2.8	-1.9
KCYN0056	1/12/21 4:20 PM	56.3	43.7	0.0	0.0	119.0	119.1	-2.9	-2.9
KCYN0057	1/13/21 2:38 PM	0.0	0.4	20.7	78.9	73.1	72.8	-0.7	-0.6
KCYN0057	1/13/21 2:43 PM	0.0	0.4	20.7	78.9	71.5	71.5	-0.7	-0.7
KCYN0057	1/21/21 10:50 AM	0.0	0.1	20.3	79.6	67.7	67.7	-1.2	-1.2
KCYN0057	1/21/21 10:53 AM	0.0	0.1	20.5	79.4	67.7	66.8	-1.2	-1.1
KCYN0058	1/13/21 9:37 AM	57.3	42.7	0.0	0.0	132.4	132.4	-3.6	-4.0
KCYN0062	1/12/21 8:53 AM	47.7	37.6	0.0	14.7	122.7	122.6	-3.3	-2.9
KCYN0063	1/12/21 8:48 AM	54.1	38.7	0.1	7.1	115.1	115.4	-1.2	-1.3
KCYN0065	1/12/21 3:30 PM	56.8	43.1	0.0	0.1	95.2	102.6	0.02	-0.5
KCYN0066	1/14/21 8:34 AM	48.1	37.5	0.1	14.3	128.9	128.9	-15.5	-15.3
KCYN0070	1/11/21 4:33 PM	48.9	35.9	0.0	15.2	112.3	111.7	-4.2	-3.6
KCYN0071	1/12/21 10:45 AM	49.5	38.7	0.0	11.8	132.2	132.4	-10.0	-10.0
KCYN0072	1/12/21 9:02 AM	54.5	37.3	0.0	8.2	108.9	111.1	-1.7	-2.0
KCYN0074	1/12/21 11:31 AM	54.9	40.6	1.0	3.5	132.1	132.0	-48.6	-48.2
KCYN0075	1/12/21 4:27 PM	55.2	42.7	0.2	1.9	97.1	97.3	-29.1	-31.2
KCYN0076	1/12/21 9:43 AM	52.7	40.5	0.0	6.8	137.7	137.8	-25.7	-25.9
KCYN0078	1/12/21 11:55 AM	48.0	38.5	0.0	13.5	133.7	133.7	-32.1	-30.8
KCYN0082	1/13/21 7:47 AM	43.5	36.3	0.0	20.2	113.1	113.3	-4.9	-3.9
KCYN0083	1/12/21 4:01 PM	55.9	41.4	0.0	2.7	62.3	63.2	-3.8	-3.9
KCYN0084	1/13/21 8:03 AM	46.8	37.2	0.0	16.0	119.8	119.3	-1.4	-1.0
KCYN0086	1/13/21 9:02 AM	57.5	42.4	0.0	0.1	134.6	134.5	-32.4	-32.4
KCYN0087	1/13/21 9:20 AM	43.9	38.4	0.0	17.7	144.4	143.5	-16.1	-14.4
KCYN0087	1/13/21 9:55 AM					CO 5 ppm			
KCYN0088	1/12/21 10:23 AM	51.4	37.7	0.1	10.8	110.9	110.9	-44.8	-45.9

Wellfield Monitoring Report - January 12, 13, and 14, 2021

Device ID	Date Time	CH₄ % by Volume	CO <sub>2</sub> % by Volume	O <sub>2</sub> % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCYN0089	1/11/21 5:02 PM	47.2	37.4	0.1	15.3	142.0	142.0	-32.5	-32.2
KCYN0089	1/11/21 5:11 PM					CO 10 ppm	•		
KCYN0090	1/12/21 10:18 AM	51.1	37.1	0.1	11.7	100.0	100.0	-24.7	-24.7
KCYN0091	1/11/21 4:49 PM	50.2	38.8	0.0	11.0	134.0	134.0	-15.1	-15.0
KCYN0092	1/12/21 11:23 AM	50.7	38.4	0.2	10.7	132.4	132.4	-39.1	-40.6
KCYN0093	1/12/21 11:36 AM	47.8	37.0	0.0	15.2	126.9	127.0	-5.4	-5.4
KCYN0094	1/12/21 10:02 AM	52.5	38.0	0.0	9.5	122.8	122.7	-9.7	-9.7
KCYN0095	1/12/21 10:10 AM	57.8	41.1	0.0	1.1	125.4	125.5	-46.0	-44.0
KCYN0097	1/11/21 4:40 PM	55.9	38.9	0.2	5.0	120.5	121.3	-3.8	-4.4
KCYN0098	1/12/21 9:55 AM	50.3	38.3	0.0	11.4	132.2	132.2	-3.8	-3.8
KCYN0099	1/11/21 4:26 PM	49.6	37.8	0.2	12.4	132.3	132.3	-4.8	-4.6
KCYN0101	1/12/21 11:07 AM	42.7	33.8	0.0	23.5	91.8	91.3	-1.5	-1.4
KCYN0102	1/12/21 11:01 AM	42.3	35.1	0.0	22.6	88.2	87.7	-1.2	-1.1
KCYN0103	1/12/21 10:50 AM	34.6	32.9	0.0	32.5	112.4	115.3	-11.3	-11.5
KCYN0105	1/14/21 9:39 AM	58.5	41.3	0.1	0.1	103.4	103.3	-52.3	-52.7
KCYN0118	1/13/21 3:18 PM	53.4	41.7	0.0	4.9	119.0	118.9	-45.4	-44.0
KCYN0119	1/13/21 3:36 PM	54.9	41.6	0.0	3.5	129.0	129.0	-4.8	-5.2
KCYN0121	1/13/21 3:08 PM	49.6	39.6	0.7	10.1	116.4	116.4	-48.9	-48.9
KCYN0122	1/13/21 3:31 PM	53.5	41.1	0.7	4.7	106.6	106.0	-46.8	-45.9
KCYN0123	1/13/21 8:25 AM	57.1	42.9	0.0	0.0	68.6	69.1	0.13	0.12
KCYN0124	1/12/21 4:07 PM	45.2	37.2	0.1	17.5	109.5	109.4	-5.0	-4.3
KCYN0125	1/14/21 12:52 PM	58.3	41.4	0.3	0.0	125.7	125.7	-26.3	-26.2
KCYN0126	1/12/21 4:38 PM	57.2	42.8	0.0	0.0	64.0	63.8	0.18	0.19
KCYN0127	1/13/21 8:44 AM	51.6	39.3	0.0	9.1	130.5	130.4	-7.6	-7.6
KCYN0128	1/13/21 8:52 AM	52.9	41.8	0.0	5.3	135.8	135.7	-32.5	-32.5
KCYN0129	1/13/21 10:13 AM	57.7	42.3	0.0	0.0	121.3	121.2	-42.7	-41.9
KCYN0130	1/14/21 9:05 AM	45.6	34.8	0.1	19.5	114.7	114.7	-20.9	-20.9
KCYN0131	1/14/21 9:00 AM	58.2	41.5	0.3	0.0	113.7	113.6	-52.8	-52.7
KCYN0133	1/12/21 11:47 AM	57.4	42.6	0.0	0.0	112.1	126.9	0.95	-6.6
KCYN0134	1/12/21 12:00 PM	47.7	37.7	0.0	14.6	109.5	108.7	-14.3	-13.0
KCYN0135	1/12/21 12:05 PM	46.8	39.5	0.0	13.7	129.1	128.9	-26.7	-24.0
KCYNLR04	1/12/21 3:16 PM	46.3	31.8	2.6	19.3	97.9	98.0	-38.4	-36.8
KCYNLR08	1/12/21 9:25 AM	60.7	39.1	0.2	0.0	72.3	71.3	-40.9	-31.9
KCYNLR11	1/14/21 10:18 AM	59.8	40.0	0.0	0.2	76.1	76.1	-0.2	-0.2

<sup>\*</sup>The following wells are approved to operate at a temperature HOV of 145°F: 37, 45, 51, 57, 58,65, 66, 71, 74, 76, 78, 86, 87, 89, 91, 98, 120, 128 and 135. Wells 56, 75, 76, 87, 89, and 120, are approved to operate at a temperature HOV of 156°F.

As of January 31, 2021, there are 74 vertical wells, 0 horizontal collector, and 3 LCR at KCRDF.

%= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

HOV = Higher Operating Value

Wellfield Monitoring Report - February 11, 12, 16, and 20, 2021

Device ID	Date Time	CH₄ % by Volume	CO <sub>2</sub> % by Volume	O <sub>2</sub> % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCLC0108	2/20/2021 13:10	36.1	33.4	1.2	29.3	97.2	94.3	-46.4	-24.2
KCLC0109	2/16/2021 9:50	49.6	41.0	0.0	9.4	102.0	103.0	-49.8	-50.1
KCLC0110	2/16/2021 9:42	54.3	42.5	0.0	3.2	114.0	114.0	-48.9	-49.0
KCLC0111	2/16/2021 9:34	55.8	44.1	0.0	0.1	98.0	99.0	-46.9	-47.0
KCLC0112	2/16/2021 9:31	49.6	42.0	0.0	8.4	116.0	116.0	-47.1	-46.9
KCLC0139	2/11/2021 15:12	56.0	44.0	0.0	0.0	113.0	113.0	-37.6	-37.6
KCLC0140	2/20/2021 14:43	55.8	42.3	0.0	1.9	99.8	100.7	-1.4	-3.8
KCLC0141	2/11/2021 15:01	54.7	40.5	0.0	4.8	84.4	87.5	-0.5	-1.7
KCLC0142	2/12/2021 12:00	35.1	31.1	0.0	33.8	97.1	97.1	-0.5	-0.4
KCLC0143	2/11/2021 15:37	45.4	37.1	0.0	17.5	98.3	98.6	-0.6	-0.7
KCLC0144	2/20/2021 12:43	57.0	43.0	0.0	0.0	81.6	82.6	-43.4	-43.0
KCLC0145	2/12/2021 13:52	55.9	40.8	1.0	2.3	74.4	75.1	-43.8	-43.3
KCLC0146	2/12/2021 13:56	57.5	42.5	0.0	0.0	78.8	79.0	-43.7	-43.3
KCLC0146	2/12/2021 13:56	57.5	42.5	0.0	0.0	78.8	79.0	-43.7	-43.3
KCLC0147	2/12/2021 14:04	57.4	42.6	0.0	0.0	91.3	91.3	-40.1	-40.1
KCLC0148	2/12/2021 13:48	47.0	37.5	3.3	12.2	58.8	58.8	-43.5	-43.5
KCLC0149	2/12/2021 13:45	55.4	44.6	0.0	0.0	86.5	87.1	-4.1	-10.2
KCLC0151	2/12/2021 14:08	53.0	42.3	0.0	4.7	108.2	108.2	-20.5	-20.4
KCLC0152	2/12/2021 14:13	44.3	36.7	0.0	19.0	106.7	106.4	-9.0	-8.9
KCYN0014	2/16/2021 9:56	43.3	31.8	0.0	24.9	89.0	89.0	-2.7	-2.7
KCYN0027	2/12/2021 11:32	49.7	39.5	0.0	10.8	116.1	115.6	-23.9	-23.9
KCYN0037	2/11/2021 16:32	47.0	34.7	4.5	13.8	54.6	54.5	-2.3	-2.3
KCYN0048	2/16/2021 10:01	45.2	39.2	0.0	15.6	118.0	117.0	-1.0	-1.1
KCYN0051	2/11/2021 15:31	55.4	44.6	0.0	0.0	106.6	106.6	-36.9	-35.2
KCYN0054	2/11/2021 15:03	56.6	43.4	0.0	0.0	72.9	73.0	-4.6	-8.3
KCYN0054	2/11/2021 15:44	55.4	44.6	0.0	0.0	117.7	118.0	-1.2	-1.2
KCYN0056	2/20/2021 15:19	56.8	43.1	0.1	0.0	118.7	118.6	-1.0	-1.0
KCYN0057	2/12/2021 12:53	0.0	0.3	21.3	78.4	58.4	58.5	0.0	0.0
KCYN0057	2/20/2021 15:13	1.5	2.3	21.3	74.9	61.0	60.8	-0.8	-0.7
KCYN0058	2/12/2021 13:05	56.3	43.7	0.0	0.0	133.1	133.2	-3.6	-4.2
KCYN0062	2/12/2021 10:38	50.5	38.5	0.0	11.0	123.6	123.5	-2.9	-2.9
KCYN0063	2/12/2021 10:33	50.0	37.2	0.1	12.7	116.6	116.6	-1.3	-1.3
KCYN0065	2/12/2021 12:05	57.3	42.7	0.0	0.0	91.0	95.0	-0.2	-5.7
KCYN0066	2/16/2021 10:05	49.7	40.4	0.0	9.9	127.0	127.0	-15.1	-15.2
KCYN0070	2/16/2021 8:36	49.4	39.0	0.0	11.6	109.0	110.0	-3.8	-3.8
KCYN0071	2/16/2021 8:10	48.1	40.0	0.0	11.9	123.0	124.0	-10.7	-9.8
KCYN0072	2/12/2021 10:50	51.0	37.3	0.0	11.7	111.9	112.0	-2.4	-2.3
KCYN0074	2/12/2021 11:23	55.1	41.7	0.7	2.5	129.8	129.7	-47.1	-46.5
KCYN0075	2/11/2021 15:51	55.7	44.2	0.1	0.0	124.9	126.1	-29.8	-30.2
KCYN0076	2/20/2021 12:35	53.7	40.9	0.0	5.4	133.6	133.5	-26.1	-26.1
KCYN0078	2/12/2021 11:37	50.2	38.8	0.0	11.0	134.5	134.5	-30.7	-30.7
KCYN0082	2/11/2021 15:18	51.0	39.8	0.0	9.2	113.7	113.6	-3.5	-3.5
KCYN0083	2/11/2021 15:10	54.3	40.8	1.4	3.5	57.7	57.5	-1.9	-1.9
KCYN0084	2/11/2021 15:21	52.4	40.2	0.0	7.4	119.8	119.7	-1.1	-1.1
KCYN0084	2/11/2021 13:41	56.9	42.3	0.0	0.6	135.0	135.1	-29.8	-29.8
KCYN0087	2/20/2021 15:36	47.9	39.4	0.0	12.7	139.9	139.7	-11.5	-11.5
KCYN0087 KCYN0088	2/16/2021 9:00	50.1	40.1	0.0	9.8	111.0	112.0	-43.5	-44.1
KCYN0089		46.5		0.0	16.2	142.1	142.1	-33.0	
KCYN0089 KCYN0090	2/12/2021 11:06	49.9	36.8 39.8	0.5	10.3	95.0	95.0	-27.0	-33.0 -27.1
	2/16/2021 8:29								-27.1
KCYN0091	2/20/2021 15:41	48.3	38.8	0.0	12.9	133.3	134.2	-15.2	-15.3
KCYN0092	2/12/2021 11:27	50.7	39.3	0.0	10.0	132.8	132.5	-38.5 7.1	-37.6 7.1
KCYN0093	2/12/2021 11:17	48.6	37.4	0.0	14.0	127.2	127.2	-7.1	-7.1

Wellfield Monitoring Report - February 11, 12, 16, and 20, 2021

Device ID	Date Time	CH₄ % by Volume	CO₂ % by Volume	O <sub>2</sub> % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCYN0095	2/16/2021 8:55	56.3	43.6	0.0	0.1	125.0	126.0	-43.9	-44.4
KCYN0097	2/16/2021 8:32	56.0	43.0	0.0	1.0	119.0	120.0	-6.9	-7.9
KCYN0098	2/16/2021 8:46	48.3	40.8	0.0	10.9	126.0	126.0	-5.4	-5.5
KCYN0099	2/20/2021 15:45	47.8	39.8	0.1	12.3	131.3	132.5	-4.8	-4.8
KCYN0101	2/16/2021 8:23	48.2	37.7	0.0	14.1	56.0	56.0	-1.3	-1.4
KCYN0102	2/16/2021 8:19	45.3	37.4	0.0	17.3	53.0	53.0	-1.0	-1.0
KCYN0103	2/16/2021 8:14	33.4	33.9	0.0	32.7	83.0	83.0	-11.7	-11.1
KCYN0105	2/16/2021 9:46	55.3	44.6	0.0	0.1	63.0	64.0	-49.0	-49.3
KCYN0118	2/16/2021 9:24	55.4	44.5	0.0	0.1	120.0	121.0	-42.7	-42.8
KCYN0119	2/16/2021 9:16	55.5	44.4	0.0	0.1	127.0	127.0	-5.6	-6.0
KCYN0121	2/16/2021 9:28	49.5	40.9	0.7	8.9	115.0	116.0	-45.5	-45.6
KCYN0122	2/16/2021 9:21	54.8	45.1	0.0	0.1	103.0	104.0	-43.0	-42.6
KCYN0123	2/12/2021 12:47	55.4	44.6	0.0	0.0	73.2	73.3	0.3	0.4
KCYN0124	2/11/2021 15:27	52.2	40.4	0.0	7.4	105.0	106.4	-3.7	-5.9
KCYN0125	2/11/2021 15:08	55.8	44.2	0.0	0.0	126.8	126.8	-23.6	-23.5
KCYN0126	2/20/2021 15:05	57.1	42.9	0.0	0.0	63.5	63.4	0.5	0.6
KCYN0127	2/12/2021 12:58	54.8	40.9	0.0	4.3	130.7	131.0	-5.7	-6.3
KCYN0128	2/12/2021 13:36	53.8	41.6	0.0	4.6	136.6	136.5	-30.2	-30.2
KCYN0129	2/20/2021 15:29	57.9	42.0	0.1	0.0	121.9	121.9	-42.1	-43.3
KCYN0130	2/20/2021 12:54	46.7	35.6	0.0	17.7	115.6	115.6	-19.7	-19.7
KCYN0131	2/16/2021 9:38	55.2	44.7	0.0	0.1	111.0	111.0	-48.5	-49.0
KCYN0133	2/12/2021 11:11	56.5	43.5	0.0	0.0	97.6	109.0	0.3	-5.3
KCYN0133	2/20/2021 14:19	54.3	39.5	0.3	5.9	122.4	123.2	-23.0	-26.1
KCYN0134	2/12/2021 11:50	49.5	39.1	0.0	11.4	106.0	106.0	-13.8	-13.8
KCYN0135	2/12/2021 11:54	50.8	41.5	0.0	7.7	129.2	129.2	-24.1	-24.1
KCYNLR04	2/20/2021 14:40	47.6	33.4	1.9	17.1	98.7	98.7	-36.7	-38.9
KCYNLR08	2/12/2021 10:53	59.4	40.6	0.1	-0.1	64.9	64.9	-55.3	-54.7
KCYNLR08	2/20/2021 13:26	59.5	40.5	0.0	0.0	86.3	86.2	-54.1	-53.8
KCYNLR11	2/20/2021 15:56	59.7	40.3	0.1	-0.1	68.0	69.6	-0.4	-0.4

<sup>\*</sup>The following wells are approved to operate at a temperature HOV of 145°F: 37, 45, 51, 57, 58,65, 66, 71, 74, 76, 78, 86, 87, 89, 91, 98, 120, 128 and 135. Wells 56, 75, 76, 87, 89, and 120, are approved to operate at a temperature HOV of 156°F.

KCRDF Facility A1812 KCRDF January 1-June 30- 2021 SAR

As of January 31, 2021, there are 74 vertical wells, 0 horizontal collector, and 3 LCR at KCRDF.

<sup>%=</sup> percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

HOV = Higher Operating Value

Wellfield Monitoring Report - March 3, 4, 8, 15, 16, and 17, 2021

Device ID	Date Time	CH₄ % by Volume	CO <sub>2</sub> % by Volume	O <sub>2</sub> % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCLC0108	3/3/2021 19:02	49.30	37.60	1.40	11.70	77.0	77.0	-6.40	-6.80
KCLC0108	3/8/2021 12:01	51.60	37.70	1.40	9.30	77.0	78.0	-5.90	-8.50
KCLC0108	3/17/2021 8:22					CO was 5 ppn	า		
KCLC0109	3/8/2021 12:14	47.10	37.80	0.90	14.20	99.0	99.0	-46.80	-47.00
KCLC0110	3/3/2021 18:42	55.20	41.60	0.20	3.00	116.0	116.0	-50.20	-50.00
KCLC0111	3/8/2021 12:43	56.40	43.10	0.40	0.10	100.0	100.0	-44.60	-44.80
KCLC0112	3/8/2021 12:28	50.40	40.70	0.00	8.90	118.0	118.0	-44.80	-44.90
KCLC0139	3/17/2021 9:56	56.00	43.90	0.00	0.10	115.9	115.9	-25.52	-25.52
KCLC0140	3/17/2021 14:46	43.60	38.00	0.00	18.40	106.9	107.0	-3.70	-3.71
KCLC0141	3/16/2021 14:12	39.90	36.40	0.00	23.70	93.5	92.5	-1.52	-1.09
KCLC0142	3/16/2021 13:55	13.00	25.50	0.10	61.40	92.7	92.9	-0.35	-0.32
KCLC0143	3/17/2021 9:10	19.90	27.90	0.00	52.20	101.7	101.2	-0.95	-0.83
KCLC0144	3/3/2021 19:24	56.10	43.80	0.00	0.10	86.0	86.0	-44.00	-44.20
KCLC0145	3/17/2021 13:24	53.00	40.70	1.00	5.30	74.7	74.7	-44.44	-44.75
KCLC0146	3/17/2021 13:05	57.90	42.10	0.00	0.00	77.3	77.2	-44.87	-44.78
KCLC0147	3/17/2021 13:55	57.10	41.90	0.00	1.00	92.5	92.5	-41.25	-41.24
KCLC0148	3/17/2021 12:45	45.20	36.20	3.80	14.80	58.4	58.4	-45.16	-43.76
KCLC0149	3/17/2021 12:23	49.30	40.30	0.10	10.30	97.2	97.2	-10.61	-10.54
KCLC0151	3/17/2021 13:39	51.00	41.40	0.00	7.60	107.0	107.0	-20.77	-20.75
KCLC0152	3/17/2021 14:05	45.20	37.80	0.00	17.00	105.2	105.2	-6.10	-6.08
KCYN0014	3/3/2021 19:13	43.30	30.40	0.70	25.60	93.0	93.0	-2.50	-2.50
KCYN0014	3/8/2021 11:51	44.40	30.30	0.30	25.00	96.0	97.0	-2.40	-2.60
KCYN0027	3/16/2021 13:25	49.30	38.80	0.10	11.80	112.8	113.9	-24.62	-25.16
KCYN0037	3/3/2021 11:44	49.80	38.40	2.80	9.00	50.0	50.0	-24.80	-25.90
KCYN0037	3/3/2021 11:44	49.80	38.40	2.80	9.00	50.0	50.0	-24.80	-27.20
KCYN0037	3/4/2021 14:11	54.50	41.90	1.20	2.40	55.0	55.0	-39.30	-39.00
KCYN0037	3/4/2021 14:14	55.80	42.20	0.90	1.10	66.0	66.0	-40.20	-40.40
KCYN0048	3/8/2021 13:06	44.20	38.00	0.00	17.80	125.0	125.0	-1.00	-1.00
KCYN0051	3/16/2021 15:14	54.80	43.60	0.30	1.30	104.4	104.5	-31.44	-32.88
KCYN0054	3/16/2021 14:21	50.10	40.40	0.10	9.40	73.6	73.6	-6.03	-6.02
KCYN0056	3/17/2021 9:44	55.60	44.40	0.00	0.00	118.8	119.1	-26.18	-26.24
KCYN0057	3/3/2021 12:24	55.40	44.30	0.20	0.10	139.0	139.0	-23.50	-23.50
KCYN0057	3/3/2021 12:26	00.40					PRESSURE)-Insta		20.00
KCYN0058	3/17/2021 11:48	34.80	38.20	0.00	27.00	132.9	132.7	-9.49	-8.85
KCYN0062	3/15/2021 13:29	51.20	39.80	0.00	9.00	121.7	121.7	-2.51	-2.50
KCYN0063	3/15/2021 13:29	50.50	38.70	0.00	10.80	114.4	114.2	-0.92	-0.98
KCYN0065	3/17/2021 10:06	40.50	32.50	4.40	22.60	97.9	97.2	-2.46	-1.96
KCYN0066	3/3/2021 18:19	48.10	39.30	0.00	12.60	129.0	129.0	-38.60	-38.70
KCYN0066	3/3/2021 18:21	48.10	39.30	0.00	12.60	129.0	129.0	-38.60	-41.50
KCYN0070	3/15/2021 14:13	51.70	37.80	0.00	10.40	107.5	107.4	-2.39	-2.39
KCYN0071	3/16/2021 9:11	49.90	39.50	0.00	10.40	131.0	131.1	-8.59	-8.59
KCYN0072	3/15/2021 13:38	51.50	37.30	0.00	11.20	111.1	109.9	-1.83	-1.83
KCYN0072	3/16/2021 7:53	52.30	37.70	0.00	10.00	108.0	109.3	-2.10	-2.31
KCYN0074	3/16/2021 9:53	57.00	43.00	0.00	0.00	131.8	131.8	-44.07	-44.70
KCYN0075	3/3/2021 12:06	54.30	45.50	0.10	0.10	112.0	112.0	-25.50	-25.20
KCYN0076	3/8/2021 13:47	55.20	42.10	0.00	2.70	138.0	138.0	-17.10	-17.30
KCYN0078	3/8/2021 14:11	56.80	43.10	0.00	0.10	132.0	133.0	-17.10	-14.80
KCYN0078	3/16/2021 14:11	37.00	34.60	0.00	28.40	112.8	112.6	-3.83	-3.21
KCYN0083	3/16/2021 14:58	34.00	40.30	0.40	25.30	62.2	62.2	-40.34 1.15	-39.83
KCYN0084	3/17/2021 9:29	31.30	33.00	0.00	35.70	118.3	114.9	-1.15	-0.56
KCYN0086	3/17/2021 11:05	56.40	42.60	0.00	1.00	134.7	134.7	-29.37	-29.32
KCYN0087	3/17/2021 11:17	37.40	36.80	0.00	25.80	142.4	142.3	-12.35	-10.08
KCYN0087	3/17/2021 11:32	50.00	20.00	0.00	0.40	CO was5 ppm		40.00	10.05
KCYN0088	3/16/2021 8:33	52.00	38.90	0.00	9.10	110.2	110.2	-40.82	-43.03

Wellfield Monitoring Report - March 3, 4, 8, 15, 16, and 17, 2021

Device ID	Date Time	CH₄ % by Volume	CO <sub>2</sub> % by Volume	O <sub>2</sub> % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCYN0089	3/16/2021 13:05	47.50	37.90	0.60	14.00	142.1	142.1	-26.98	-26.99
KCYN0089	3/17/2021 8:06	47.30	38.00	0.60	14.10	142.2	142.2	-27.40	-27.00
KCYN0089	3/17/2021 8:23					CO was5 ppn	1		1.
KCYN0090	3/16/2021 9:21	45.70	34.60	2.20	17.50	90.7	90.8	-24.24	-24.23
KCYN0091	3/15/2021 14:34	48.80	39.40	0.00	11.80	133.2	133.2	-13.87	-13.85
KCYN0091	3/16/2021 8:03	49.30	39.90	0.00	10.80	134.1	134.1	-16.32	-16.32
KCYN0092	3/16/2021 9:43	53.60	40.00	0.00	6.40	130.2	130.6	-36.66	-37.41
KCYN0093	3/16/2021 10:01	46.20	37.30	0.00	16.50	125.9	125.4	-7.13	-6.61
KCYN0094	3/17/2021 14:22	43.80	35.30	1.20	19.70	119.3	118.2	-9.92	-8.33
KCYN0095	3/16/2021 8:24	57.30	41.80	0.20	0.70	124.8	124.8	-41.43	-41.61
KCYN0097	3/15/2021 14:21	50.90	39.00	0.20	9.90	118.4	118.4	-8.45	-8.45
KCYN0098	3/16/2021 8:13	49.60	39.10	0.00	11.30	131.6	131.7	-5.11	-5.10
KCYN0099	3/15/2021 13:56	45.20	38.00	0.00	16.80	131.6	131.8	-7.86	-7.90
KCYN0101	3/16/2021 8:43	55.30	38.30	0.00	6.40	71.7	73.0	-0.64	-0.78
KCYN0102	3/16/2021 8:51	37.80	34.00	0.00	28.20	88.6	86.9	-1.59	-1.31
KCYN0103	3/16/2021 9:03	36.30	33.60	0.00	30.10	109.9	109.0	-8.10	-7.74
KCYN0105	3/3/2021 18:52	56.40	43.10	0.40	0.10	112.0	108.0	-47.00	-47.00
KCYN0105	3/8/2021 12:21	56.70	43.00	0.20	0.10	115.0	115.0	-46.40	-46.40
KCYN0118	3/8/2021 13:28	56.50	42.90	0.30	0.30	120.0	120.0	-39.50	-39.50
KCYN0119	3/8/2021 13:42	56.30	43.60	0.00	0.10	130.0	131.0	-4.60	-5.10
KCYN0121	3/8/2021 13:13	53.40	41.20	0.50	4.90	119.0	119.0	-43.60	-43.30
KCYN0122	3/8/2021 13:36	55.90	44.00	0.00	0.10	109.0	107.0	-40.90	-40.20
KCYN0123	3/3/2021 12:40	54.30	45.50	0.10	0.10	129.0	129.0	-13.00	-13.00
KCYN0123	3/3/2021 12:42		Con	ective Action	n Completed	PCAC_STATIC_I	PRESSURE)-Insta	lled new jumper	!
KCYN0124	3/16/2021 15:09	32.30	33.00	0.10	34.60	108.9	108.8	-6.53	-5.39
KCYN0125	3/17/2021 10:23	56.70	43.20	0.10	0.00	125.9	125.9	-18.48	-18.47
KCYN0126	3/3/2021 11:50	54.50	45.30	0.10	0.10	126.0	126.0	-14.50	-14.50
KCYN0126	3/8/2021 11:52		Con	ective Actio	n Completed	(PCAC_STATIC_I	PRESSURE)-Insta	lled new jumper	
KCYN0127	3/17/2021 10:40	34.30	35.70	0.00	30.00	129.40	128.70	-8.96	-8.33
KCYN0127	3/17/2021 10:47	34.40	35.50	0.00	30.10	129.1	128.4	-9.28	-8.40
KCYN0128	3/17/2021 10:55	47.30	41.00	0.00	11.70	135.8	135.8	-30.21	-29.79
KCYN0129	3/17/2021 13:32	56.20	42.70	0.00	1.10	121.2	121.1	-40.56	-41.03
KCYN0130	3/8/2021 12:54	46.80	35.80	0.00	17.40	117.0	117.0	-18.90	-18.70
KCYN0131	3/8/2021 12:48	51.90	38.90	2.10	7.10	110.0	111.0	-45.70	-46.00
KCYN0133	3/8/2021 13:54	56.70	42.20	0.00	1.10	115.0	118.0	-11.80	-14.00
KCYN0134	3/16/2021 13:19	55.20	40.50	0.10	4.20	102.9	104.5	-12.44	-14.65
KCYN0135	3/16/2021 13:31	53.60	43.00	0.00	3.40	129.1	129.1	-18.96	-19.31
KCYNLR04	3/16/2021 13:43	49.30	34.80	1.90	14.00	97.8	98.0	-33.06	-32.28
KCYNLR08	3/15/2021 13:14	60.00	39.50	0.50	0.00	81.7	81.5	-54.17	-53.65
KCYNLR11	3/3/2021 19:08	58.40	41.20	0.20	0.20	75.0	75.0	-0.10	-0.10
KCYNLR11	3/8/2021 11:57	58.40	39.50	1.00	1.10	74.0	74.0	-0.20	-0.40

<sup>\*</sup>The following wells are approved to operate at a temperature HOV of 145°F: 37, 45, 51, 57, 58,65,66,71,74,76,78,86,87,89,91,98,120,128 and 135. Wells 56, 75, 76, 87, 89, and 120, are approved to operate at a temperature HOV of 156°F. As of March 31, 2021, there are 73 vertical wells, 0 horizontal collector, and 3 LCR at KCRDF.

in. w.c.= inches in water column degrees F= degrees Fahrenheit

HOV = Higher Operating Value

KCRDF Facility A1812 KCRDF January 1-June 30- 2021 SAR

<sup>%=</sup> percent

Wellfield Monitoring Report - April 12, 13, 14, and 16, 2021

Device ID	Date Time	CH₄ % by Volume	CO₂ % by Volume	O <sub>2</sub> % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.
KCLC0108	4/13/2021 9:34	37.3	30.5	3.6	28.60	87.00	84.00	-14.7	-11.5
KCLC0109	4/13/2021 9:49	50.0	38.1	0.1	11.80	102.00	102.00	-51.6	-52.2
KCLC0110	4/13/2021 9:56	55.5	40.8	0.0	3.70	116.00	116.00	-50.9	-51.2
KCLC0111	4/13/2021 10:17	56.5	43.0	0.4	0.10	89.00	89.00	-50.0	-50.0
KCLC0112	4/13/2021 10:08	50.1	40.2	0.0	9.70	118.00	118.00	-49.3	-49.4
KCLC0139	4/12/2021 10:31	55.0	44.9	0.0	0.10	117.00	117.00	-21.5	-21.5
KCLC0140	4/12/2021 10:16	39.6	36.7	0.2	23.50	108.00	108.00	-3.7	-1.5
KCLC0141	4/16/2021 13:14	37.2	34.4	0.0	28.40	75.00	86.00	-1.6	-0.8
KCLC0142	4/12/2021 14:27	13.2	23.8	0.0	63.00	95.00	95.00	-0.1	-0.1
KCLC0143	4/12/2021 9:41	20.7	26.8	0.1	52.40	109.00	109.00	-0.7	-0.3
KCLC0144	4/16/2021 13:58	57.2	42.7	0.0	0.10	108.00	108.00	-45.9	-46.2
KCLC0145	4/13/2021 13:22	57.2	42.7	0.0	0.10	87.00	87.00	-45.3	-44.9
KCLC0146	4/13/2021 13:20	57.1	42.8	0.0	0.10	78.00	78.00	-45.4	-45.7
KCLC0147	4/13/2021 13:49	57.1	42.6	0.1	0.20	94.00	94.00	-42.2	-41.7
KCLC0148	4/13/2021 13:28	50.7	43.7	1.5	4.10	66.00	66.00	-45.7	-45.4
KCLC0149	4/14/2021 12:47	47.0	41.3	0.0	11.70	100.00	100.00	-11.2	-11.2
KCLC0151	4/14/2021 10:47	52.8	42.9	0.0	4.30	110.00	110.00	-21.3	-21.4
KCLC0151	4/14/2021 10:47	43.4	38.6	0.0	18.00	105.00	104.00	-6.4	-6.2
KCYN0014	4/13/2021 9:30	43.8	29.3	0.0	26.80	94.00	95.00	-3.1	-3.1
KCYN0027	4/16/2021 13:25	48.1	39.2	0.0	12.70	115.00	115.00	-27.2	-27.2
KCYN0048	4/13/2021 10:39	43.9	37.5	0.0	18.60	118.00	118.00	-1.1	-1.1
KCYN0051	4/16/2021 13:04	50.4	43.6	0.2	5.80	106.00	106.00	-38.5	-38.2
KCYN0054	4/12/2021 10:04	47.5	40.6	0.0	11.90	79.00	80.00	-9.8	-9.7
KCYN0056	4/12/2021 14:13	53.1	45.3	0.1	1.50	123.00	123.00	-28.9	-28.9
KCYN0057	4/12/2021 13:36	41.2	38.9	0.1	19.80	138.00	138.00	-23.2	-16.9
KCYN0058	4/12/2021 13:54	39.0	38.7	0.0	22.30	109.00	106.00	-2.1	-2.0
KCYN0062	4/14/2021 9:31	50.5	39.5	0.1	9.90	121.00	121.00	-2.8	-3.4
KCYN0063	4/14/2021 9:27	49.8	39.2	0.0	11.00	114.00	114.00	-1.2	-1.3
KCYN0065	4/12/2021 10:11	45.1	36.5	2.9	15.50	101.00	101.00	-1.6	-0.5
KCYN0066	4/13/2021 10:35	37.0	33.9	0.0	29.10	128.00	127.00	-44.7	-32.8
KCYN0070	4/14/2021 13:01	53.4	38.7	0.0	7.90	109.00	109.00	-2.5	-3.0
KCYN0071	4/14/2021 14:42	49.7	39.9	0.0	10.40	132.00	132.00	-8.4	-8.7
KCYN0071	4/14/2021 9:39	47.2	36.8	0.0	16.00	115.00	115.00	-2.7	-2.6
KCYN0074	4/16/2021 13:40	56.1	43.8	0.0	0.10	129.00	129.00	-45.5	-45.9
KCYN0075	4/16/2021 11:24	56.0	43.7	0.1	0.20	135.00	135.00	-34.7	-35.1
KCYN0076	4/13/2021 11:06	53.0	41.4	0.0	5.60	137.00	137.00	-27.3	-27.3
KCYN0078	4/13/2021 14:02	51.3	39.4	0.8	8.50	135.00	135.00	-23.4	-23.3
KCYN0082	4/12/2021 9:59	36.5	34.0	0.0	29.50	111.00	112.00	-3.6	-2.3
KCYN0083	4/12/2021 9:54	26.4	35.1	0.0	38.40	70.00	70.00	-41.5	-41.6
KCYN0084	4/12/2021 9:44	39.5	35.6	0.0	24.90	119.00	118.00	-0.4	-0.2
KCYN0086	4/13/2021 12:55	56.7	43.2	0.0	0.10	133.00	133.00	-33.0	-33.0
KCYN0087	4/16/2021 14:05	43.9	39.4	0.0	16.70	138.00	138.00	-11.0	-12.7
KCYN0088	4/14/2021 14:12	50.6	39.2	0.0	10.20	113.00	113.00	-42.8	-41.5
KCYN0089	4/14/2021 13:24	46.5	38.7	0.3	14.50	137.00	137.00	-27.5	-27.5
KCYN0090	4/14/2021 14:55	49.1	37.5	0.7	12.70	96.00	95.00	-24.0	-24.0
KCYN0091	4/14/2021 13:19	49.3	40.3	0.0	10.40	135.00	135.00	-16.0	-15.9
KCYN0092	4/16/2021 13:36	53.1	40.0	0.0	6.90	128.00	128.00	-37.9	-37.5
KCYN0093	4/16/2021 13:44	51.3	39.9	0.0	8.80	129.00	129.00	-3.5	-3.5
KCYN0094	4/14/2021 13:49	48.0	37.4	0.8	13.80	116.00	116.00	-7.6	-7.6
KCYN0095	4/14/2021 13:52	57.6	42.1	0.0	0.20	126.00	126.00	-40.9	-42.0
KCYN0097	4/14/2021 13:10	52.0	39.7	0.2	8.10	122.00	123.00	-9.1	-9.1
KCYN0098	4/14/2021 13:42	51.1	39.7	0.0	9.20	128.00	128.00	-4.1	-4.1
KCYN0099	4/14/2021 13:42	44.4	38.2	0.0	17.40	132.00	131.00	-8.1	-7.1
	.,, 202 1 12.00	47.0	36.6	0.0	16.40	95.00	95.00	-1.1	-1.1

Wellfield Monitoring Report - April 12, 13, 14, and 16, 2021

Device ID	Date Time	CH₄ % by Volume	CO <sub>2</sub> % by Volume	O <sub>2</sub> % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCYN0102	4/14/2021 15:06	40.0	34.4	0.0	25.60	105.00	105.00	-1.1	-1.0
KCYN0103	4/14/2021 14:17	37.6	34.8	0.0	27.60	120.00	119.00	-6.9	-6.4
KCYN0105	4/13/2021 10:02	57.3	42.3	0.3	0.10	111.00	111.00	-48.3	-47.8
KCYN0118	4/13/2021 10:50	57.0	42.9	0.0	0.10	119.00	121.00	-44.4	-44.5
KCYN0119	4/13/2021 10:59	57.0	42.6	0.0	0.40	128.00	128.00	-6.8	-7.6
KCYN0121	4/13/2021 10:45	53.6	41.5	0.2	4.70	120.00	120.00	-48.1	-47.9
KCYN0122	4/13/2021 10:55	57.0	42.9	0.0	0.10	110.00	110.00	-44.8	-44.5
KCYN0123	4/12/2021 13:50	44.3	43.8	0.0	11.90	128.00	128.00	-13.2	-10.4
KCYN0124	4/12/2021 9:49	30.8	32.7	0.0	36.50	110.00	109.00	-5.1	-3.1
KCYN0125	4/12/2021 10:28	55.8	44.1	0.0	0.10	129.00	129.00	-19.5	-19.8
KCYN0126	4/12/2021 10:35	49.5	43.0	0.0	7.50	123.00	123.00	-14.7	-14.7
KCYN0127	4/12/2021 13:41	36.0	35.5	0.0	28.50	129.00	127.00	-7.9	-5.4
KCYN0128	4/13/2021 13:00	46.6	40.2	0.0	13.20	139.00	139.00	-33.1	-33.1
KCYN0129	4/13/2021 13:08	56.3	43.6	0.0	0.10	122.00	122.00	-41.1	-41.2
KCYN0130	4/13/2021 10:26	45.4	35.4	0.0	19.20	114.00	114.00	-20.1	-20.2
KCYN0131	4/13/2021 10:21	54.5	41.6	0.8	3.10	111.00	111.00	-50.4	-49.8
KCYN0133	4/13/2021 13:58	50.2	39.7	0.1	10.00	126.00	126.00	-27.9	-27.9
KCYN0134	4/13/2021 14:06	55.0	41.1	0.0	3.90	108.00	108.00	-14.7	-14.7
KCYN0135	4/13/2021 14:13	52.7	43.5	0.0	3.80	129.00	129.00	-21.0	-21.1
KCYNLR04	4/16/2021 13:19	48.0	34.2	2.0	15.80	98.00	98.00	-38.8	-36.6
KCYNLR08	4/14/2021 9:53	58.1	41.2	0.5	0.20	80.00	80.00	-54.5	-54.2
KCYNLR11	4/14/2021 10:10	58.5	41.0	0.4	0.10	75.00	75.00	-0.1	-0.2

\*The following wells are approved to operate at a temperature HOV of 145°F: 37, 45, 51, 57, 58,65, 66, 71, 74, 76, 78, 86, 87, 89, 91, 98, 120, 128 and 135. Wells 56, 75, 76, 87, 89, and 120, are approved to operate at a temperature HOV of 156°F.

As of April 30, 2021, there are 73 vertical wells, 0 horizontal collector, and 3 LCR at KCRDF.

%= percent

in. w.c.= inches in water column degrees F= degrees Fahrenheit

HOV = Higher Operating Value

KCRDF Facility A1812 KCRDF January 1-June 30- 2021 SAR

Wellfield Monitoring Report - May 3, 5, 6, and 7, 2021

Device ID	Date Time	CH₄ % by Volume	CO₂ % by Volume	O₂ % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCLC0108	5/5/2021 9:18	38.3	30.8	4.2	26.7	94.0	94.0	-10.6	-10.7
KCLC0109	5/5/2021 9:41	48.6	38.0	0.1	13.3	105.0	105.0	-51.1	-51.0
KCLC0110	5/5/2021 9:45	55.0	40.9	0.1	4.0	117.0	117.0	-50.1	-50.3
KCLC0111	5/5/2021 10:14	56.5	42.9	0.4	0.2	101.0	101.0	-49.0	-49.0
KCLC0112	5/5/2021 10:09	49.8	40.4	0.0	9.8	119.0	119.0	-48.5	-48.5
KCLC0139	5/3/2021 11:59	54.3	45.5	0.0	0.2	120.0	120.0	-22.6	-22.5
KCLC0140	5/3/2021 11:54	51.4	42.7	0.0	5.9	109.0	109.0	-1.3	-1.2
KCLC0141	5/3/2021 13:09	44.4	37.4	0.0	18.2	93.0	93.0	-0.6	-0.5
KCLC0142	5/3/2021 13:13	22.7	26.3	0.0	51.0	100.0	100.0	-0.1	-0.1
KCLC0143	5/3/2021 12:41	39.8	32.3	0.0	27.9	88.0	88.0	-0.1	-0.2
KCLC0144	5/5/2021 13:56	56.9	42.9	0.1	0.1	98.0	98.0	-44.8	-44.7
KCLC0145	5/3/2021 14:37	55.7	44.1	0.1	0.1	95.0	95.0	-44.8	-45.0
KCLC0146	5/3/2021 14:34	56.3	43.6	0.0	0.1	89.0	89.0	-45.3	-45.4
KCLC0147	5/3/2021 14:25	56.0	42.8	0.4	0.8	98.0	98.0	-42.3	-42.4
KCLC0147	5/3/2021 14:41	50.4	41.0	1.5	7.1	86.0	85.0	-45.1	-45.3
KCLC0148	5/3/2021 14:44	45.4	40.8	0.0	13.8	103.0	103.0	-10.7	-10.7
KCLC0149 KCLC0151	5/3/2021 14:20	52.2	42.7	0.0	5.1	111.0	111.0	-20.8	-20.7
KCLC0151 KCLC0152	5/3/2021 14:16	44.0	38.4	0.0	17.6	108.0	109.0	-5.0	-5.0
KCYN0014	5/5/2021 9:35	42.4	29.0	0.6	28.0	99.0	99.0	-3.0	-2.7
KCYN0014 KCYN0027	5/6/2021 12:20	48.7	39.7	0.0	11.6	117.0	117.0	-2.7	-2.7
KCYN0048	5/5/2021 10:38	44.2	38.0	0.0	17.8	122.0	122.0	-1.1	-1.1
KCYN0051	5/3/2021 10:33	51.2	44.2	0.0	4.3	109.0	109.0	-39.2	-38.8
KCYN0054	5/3/2021 11:23	51.4	41.4	0.1	7.1	82.0	82.0	-17.0	-17.1
KCYN0056	5/3/2021 12:29	53.0	44.5	0.0	2.5	125.0	124.0	-28.7	-28.8
KCYN0057	5/3/2021 12:18	47.1	40.7	0.0	12.2	139.0	139.0	-12.8	-12.9
KCYN0058	5/6/2021 12:39	50.3	41.0	0.3	8.4	108.0	109.0	-2.2	-2.2
KCYN0062	5/6/2021 11:31	44.3	37.5	0.0	18.2	124.0	124.0	-7.5	-3.8
KCYN0063	5/6/2021 11:27	43.9	37.8	0.1	18.2	117.0	117.0	-1.7	-1.6
KCYN0065	5/3/2021 13:05	55.7	43.9	0.3	0.1	103.0	103.0	-0.3	-0.3 -14.2
KCYN0066	5/5/2021 10:31	49.7	37.8	0.0	12.5	127.0	126.0	-14.2	
KCYN0070	5/6/2021 11:48	50.5	37.9	0.1	11.5	111.0	112.0	-6.3	-3.5
KCYN0071	5/5/2021 14:54	49.5	39.3	0.1	11.1	131.0	131.0	-8.6	-8.7
KCYN0072	5/6/2021 11:34	45.1	36.1	0.0	18.8	113.0	114.0	-2.7	-2.7
KCYN0074	5/5/2021 14:25	56.4	43.5	0.0	0.1	130.0	130.0	-45.4	-45.8
KCYN0075	5/3/2021 12:09	54.6	44.8	0.5	0.1	120.0	120.0	-26.9	-26.4
KCYN0076	5/5/2021 11:33	50.2	40.4	0.7	8.7	138.0	138.0	-26.4	-26.3
KCYN0078	5/3/2021 15:12	51.5	40.5	0.4	7.6	137.0	137.0	-22.7	-22.7
KCYN0082	5/3/2021 11:28	49.1	37.5	0.0	13.4	111.0	111.0	-1.0	-1.1
KCYN0082	5/3/2021 11:33	29.2	34.6	0.3	35.9	78.0	79.0	-40.2	-42.0
KCYN0083	5/6/2021 12:29	29.3	35.2	0.2	35.3	74.0	74.0	-42.2	-42.8
KCYN0084	5/6/2021 13:05	50.9	39.1	0.1	9.9	109.0	109.0	-0.3	-0.3
KCYN0086	5/6/2021 13:00	56.2	43.7	0.0	0.1	135.0	136.0	-31.8	-31.8
KCYN0087	5/5/2021 14:04	40.5	27.7	0.0	24.0	CO was 0 ppn		14.10	40.00
KCYN0087	5/5/2021 14:07	40.5	37.7	0.0	21.8	143.0	142.0	-14.10	-13.30
KCYN0088	5/5/2021 15:00	50.5	37.9	0.0	11.6	112.0	112.0	-41.00	-43.00
KCYN0089	5/6/2021 12:04	46.0	38.6	0.4	15.0	137.0	138.0	-27.30	-27.00
KCYN0090	5/5/2021 15:05	50.5	38.4	0.0	11.1	106.0	107.0	-24.60	-24.60
KCYN0091	5/6/2021 11:59	49.0	40.4	0.0	10.6	135.0	135.0	-16.40	-16.30
KCYN0092	5/5/2021 14:20	53.7	39.2	0.1	7.0	120.0	123.0	-36.70	-37.10
KCYN0093	5/5/2021 14:30	50.4	39.2	0.0	10.4	126.0	126.0	-3.80	-3.70
KCYN0094	5/5/2021 15:25	48.5	37.9	0.5	13.1	120.0	120.0	-7.50	-7.50
KCYN0095	5/5/2021 15:20	58.0	41.6	0.2	0.2	128.0	127.0	-41.50	-41.30
KCYN0097	5/6/2021 11:54	51.6	39.4	0.2	8.8	120.0	121.0	-13.10	-9.20
KCYN0098	5/7/2021 7:52	51.2	40.0	0.1	8.7	128.0	128.0	-4.90	-4.90

Wellfield Monitoring Report - May 3, 5, 6, and 7, 2021

Device ID	Date Time	CH₄ % by Volume	CO <sub>2</sub> % by Volume	O <sub>2</sub> % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCYN0099	5/6/2021 11:43	45.6	38.4	0.0	16.0	132.0	133.0	-9.50	-6.60
KCYN0101	5/5/2021 14:44	44.7	35.3	0.1	19.9	102.0	102.0	-1.40	-1.40
KCYN0102	5/5/2021 15:12	43.4	35.3	0.0	21.3	108.0	108.0	-0.90	-0.90
KCYN0103	5/5/2021 14:50	41.5	35.3	0.0	23.2	119.0	118.0	-4.50	-4.60
KCYN0105	5/5/2021 10:04	56.7	42.8	0.4	0.1	112.0	112.0	-48.30	-48.20
KCYN0118	5/5/2021 11:08	56.6	43.1	0.0	0.3	123.0	123.0	-42.80	-43.50
KCYN0119	5/5/2021 11:27	53.3	41.4	0.0	5.3	128.0	129.0	-9.00	-8.90
KCYN0121	5/5/2021 11:04	55.1	41.7	0.1	3.1	122.0	122.0	-46.80	-47.00
KCYN0122	5/5/2021 11:13	57.3	42.6	0.0	0.1	111.0	111.0	-43.40	-43.40
KCYN0123	5/3/2021 12:14	47.3	43.3	0.0	9.4	128.0	128.0	-9.20	-9.10
KCYN0124	5/3/2021 12:37	47.4	38.1	0.0	14.5	109.0	109.0	-0.50	-1.10
KCYN0125	5/3/2021 11:51	55.2	44.1	0.0	0.7	129.0	129.0	-20.00	-20.00
KCYN0126	5/3/2021 12:03	50.3	43.2	0.0	6.5	125.0	125.0	-15.00	-15.00
KCYN0127	5/3/2021 12:23	44.6	39.2	0.0	16.2	124.0	125.0	-3.40	-3.70
KCYN0128	5/6/2021 12:48	48.3	41.2	0.1	10.4	137.0	137.0	-32.30	-32.50
KCYN0129	5/3/2021 14:11	56.0	43.9	0.0	0.1	125.0	125.0	-41.30	-41.50
KCYN0130	5/5/2021 10:26	45.5	35.7	0.2	18.6	115.0	115.0	-20.20	-20.30
KCYN0131	5/5/2021 10:18	56.9	42.4	0.6	0.1	116.0	116.0	-49.20	-49.80
KCYN0133	5/3/2021 15:08	48.6	40.0	0.1	11.3	128.0	128.0	-24.30	-24.30
KCYN0134	5/3/2021 15:17	53.5	41.2	0.0	5.3	106.0	107.0	-14.10	-14.10
KCYN0135	5/3/2021 15:24	52.0	43.3	0.0	4.7	132.0	132.0	-20.30	-20.40
KCYNLR04	5/5/2021 14:14	46.5	34.0	2.3	17.2	100.0	100.0	-36.00	-38.50
KCYNLR08	5/6/2021 11:13	58.5	40.8	0.6	0.1	103.0	103.0	-54.10	-54.10
KCYNLR11	5/5/2021 9:14	59.2	40.1	0.6	0.1	0.0	86.0	-0.20	-0.40

The following wells are approved to operate at a temperature HOV of 145°F: 37, 45, 51, 57, 58,65, 66, 71, 74, 76, 78, 86, 87, 89, 91, 98, 128 and 135. Wells 56, 75, 76, 87, and 89 are approved to operate at a temperature HOV of 156°F.

As of May 31, 2021, there are 73 vertical wells, 0 horizontal collector, and 3 LCR at KCRDF. %= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

HOV = Higher Operating Value

KCRDF Facility A1812 KCRDF January 1-June 30- 2021 SAR

### KIRBY CANYON RECYCLING & DISPOSAL FACILITY Wellfield Monitoring Report - June 4, 5, 8, and 9, 2021

Device ID	Date Time	CH₄ % by Volume	CO₂ % by Volume	O₂ % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCLC0108	6/5/2021 10:43	33.8	31.5	1.1	33.6	95.0	95.0	-23.1	-23.3
KCLC0109	6/5/2021 11:00	44.7	36.0	1.9	17.4	106.0	105.0	-46.4	-46.1
KCLC0110	6/5/2021 11:09	57.0	42.2	0.1	0.7	118.0	118.0	-45.2	-45.2
KCLC0111	6/5/2021 11:32	56.1	42.7	0.7	0.5	99.0	102.0	-43.6	-43.4
KCLC0112	6/5/2021 11:25	47.3	39.6	0.5	12.6	122.0	122.0	-44.1	-44.3
KCLC0139	6/8/2021 13:32	55.0	44.5	0.4	0.1	120.0	119.0	-20.2	-20.1
KCLC0140	6/8/2021 13:26	52.3	43.1	0.0	4.6	98.0	102.0	-2.7	-3.4
KCLC0141	6/8/2021 11:14	39.6	35.7	0.4	24.3	90.0	91.0	-0.8	-0.8
KCLC0142	6/8/2021 10:00	8.3	21.7	0.6	69.4	105.0	105.0	-1.0	-0.5
KCLC0143	6/8/2021 15:26	19.4	26.3	0.0	54.3	110.0	107.0	-3.5	-1.2
KCLC0144	6/5/2021 14:22	57.2	42.5	0.2	0.1	94.0	95.0	-30.5	-40.5
KCLC0145	6/5/2021 14:48	57.1	42.4	0.3	0.2	104.0	104.0	-41.3	-41.2
KCLC0146	6/5/2021 14:46	57.4	42.5	0.0	0.1	92.0	92.0	-41.9	-41.6
KCLC0147	6/5/2021 14:43	57.2	42.7	0.0	0.1	100.0	100.0	-38.6	-38.6
KCLC0148	6/5/2021 14:50	54.6	43.1	0.0	2.3	90.0	90.0	-41.7	-41.4
KCLC0149	6/5/2021 14:57	46.8	40.4	0.0	12.8	112.0	112.0	-10.3	-10.3
KCLC0151	6/5/2021 14:35	53.8	42.7	0.0	3.5	111.0	111.0	-18.1	-18.3
KCLC0152	6/5/2021 14:32	51.3	40.5	0.0	8.2	110.0	109.0	-4.6	-5.0
KCYN0014	6/5/2021 10:48	45.6	31.0	0.4	23.0	89.0	89.0	-1.6	-1.6
KCYN0027	6/4/2021 15:00	51.4	39.4	0.0	9.2	118.0	117.0	-23.2	-26.7
KCYN0048	6/5/2021 11:53	44.6	38.3	0.0	17.1	120.0	120.0	-0.9	-0.9
KCYN0051	6/9/2021 12:55	48.1	39.6	1.5	10.8	111.0	111.0	-30.6	-31.4
KCYN0054	6/8/2021 11:23	55.5	42.0	0.8	1.7	86.0	86.0	-7.9	-20.7
KCYN0056	6/8/2021 14:22	51.1	43.1	0.5	5.3	123.0	123.0	-23.7	-23.8
KCYN0057	6/9/2021 13:00	47.0	40.2	0.2	12.6	138.0	131.0	-12.3	-12.3
KCYN0058	6/8/2021 13:59	50.4	41.5	0.1	8.0	122.0	122.0	-2.0	-2.4
KCYN0058	6/8/2021 14:16	47.9	40.8	0.0	11.3	138.0	138.0	-11.9	-11.8
KCYN0062	6/4/2021 9:52	47.0	38.4	0.0	14.6	123.0	125.0	-2.9	-6.1
KCYN0063	6/4/2021 9:46	51.1	39.9	0.0	9.0	117.0	117.0	-0.9	-1.3
KCYN0065	6/8/2021 15:39	41.6	33.4	4.5	20.5	80.0	80.0	-0.3	-0.3
KCYN0066	6/5/2021 11:49	45.3	34.9	0.4	19.4	127.0	127.0	-13.0	-13.0
KCYN0070	6/4/2021 11:58	47.9	36.3	1.0	14.8	113.0	113.0	-4.3	-5.0
KCYN0070	6/4/2021 15:58	49.2	39.6	0.0	11.2	130.0	130.0	-7.6	-7.6
KCYN0071	6/4/2021 9:57	45.6	36.0	0.0	18.4	117.0	117.0	-7.0	-7.6
KCYN0074	6/4/2021 15:07	54.7	41.4	1.1	2.8	126.0	126.0	-39.2	-38.3
	+			1					-21.3
KCYN0074 KCYN0075	6/4/2021 15:25	49.1	40.6	0.0	10.3	115.0	115.0	-21.6 25.2	
	6/8/2021 13:50	54.5	43.7	1.7	0.1	122.0	120.0	-25.2	-25.5
KCYN0076	6/5/2021 12:24	52.4	41.6	0.1	5.9	138.0	139.0	-23.6	-23.6 -22.0
KCYN0078	6/4/2021 14:49	54.0		0.0	5.3	137.0	137.0	-20.7	
KCYN0078	6/4/2021 14:51	46.3	36.7	2.5	14.5	132.0	132.0	-21.5	-21.4
KCYN0082	6/8/2021 14:43	32.0	32.8	0.2	35.0	112.0	113.0	-7.2 36.6	-4.4
KCYN0083	6/8/2021 14:47	23.9	29.8	3.7	42.6	74.0	75.0	-36.6	-37.4
KCYN0084	6/8/2021 15:30	46.7	39.0	0.1	14.2	117.0	117.0	-0.2	-0.2
KCYN0086	6/5/2021 15:06	56.5	43.3	0.0	0.2	129.0	129.0	-25.4	-25.1
KCYN0087	6/8/2021 9:50	37.5	36.7	0.1	25.7	139.0	139.0	-25.5	-23.1
KCYN0088	6/4/2021 16:01	52.5	39.3	0.0	8.2	118.0	118.0	-35.5	-35.2
KCYN0089	6/4/2021 14:38	46.8	36.9	0.9	15.4	139.0	138.0	-20.0	-19.9
KCYN0090	6/5/2021 12:54	53.3	39.4	0.0	7.3	110.0	111.0	-21.9	-21.4
KCYN0091	6/4/2021 14:32	48.4	39.1	0.1	12.4	138.0	138.0	-25.0	-25.1
KCYN0092	6/4/2021 14:55	54.8	40.9	0.0	4.3	117.0	117.0	-28.2	-27.7

KCRDF Facility A1812 KCRDF January 1-June 30- 2021 SAR

Wellfield Monitoring Report - June 4, 5, 8, and 9, 2021

Device ID	Date Time	CH₄ % by Volume	CO₂ % by Volume	O₂ % by Volume	Balance % by Volume	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)
KCYN0093	6/4/2021 15:15	53.3	40.0	0.0	6.7	126.0	126.0	-2.8	-2.9
KCYN0094	6/5/2021 12:39	51.8	38.9	0.5	8.8	125.0	125.0	-5.9	-5.9
KCYN0095	6/4/2021 16:27	55.5	40.8	0.9	2.8	126.0	126.0	-35.0	-36.0
KCYN0097	6/8/2021 15:55	54.9	40.6	0.2	4.3	123.0	122.0	-7.4	-9.7
KCYN0098	6/5/2021 12:34	53.0	40.4	0.1	6.5	119.0	119.0	-3.0	-3.0
KCYN0099	6/4/2021 11:48	38.6	35.9	0.0	25.5	132.0	132.0	-12.3	-9.4
KCYN0101	6/4/2021 15:41	43.3	35.1	0.0	21.6	102.0	102.0	-1.2	-1.2
KCYN0102	6/4/2021 15:51	45.7	36.8	0.0	17.5	108.0	108.0	-0.7	-0.7
KCYN0103	6/5/2021 12:48	43.6	37.1	0.0	19.3	119.0	119.0	-4.1	-4.2
KCYN0105	6/5/2021 11:17	55.6	40.7	1.1	2.6	105.0	105.0	-44.1	-44.2
KCYN0105	6/5/2021 11:18	55.6	40.7	1.1	2.6	105.0	105.0	-44.1	-43.8
KCYN0118	6/5/2021 12:02	53.5	41.2	0.8	4.5	122.0	122.0	-38.1	-38.4
KCYN0119	6/5/2021 12:17	44.5	37.7	0.2	17.6	132.0	132.0	-17.6	-17.9
KCYN0121	6/5/2021 11:58	56.1	43.8	0.0	0.1	118.0	122.0	-42.5	-42.4
KCYN0122	6/5/2021 12:07	51.6	38.0	2.1	8.3	111.0	111.0	-39.3	-37.5
KCYN0123	6/8/2021 14:18	48.0	42.8	0.2	9.0	129.0	129.0	-11.8	-11.6
KCYN0123	6/8/2021 14:18	48.0	42.8	0.2	9.0	129.0	129.0	-11.8	-11.6
KCYN0124	6/8/2021 14:56	46.7	38.7	0.1	14.5	108.0	108.0	-1.2	-1.3
KCYN0125	6/8/2021 13:23	53.0	41.1	1.1	4.8	128.0	128.0	-15.9	-15.8
KCYN0126	6/8/2021 13:37	50.8	42.4	0.2	6.6	123.0	123.0	-12.5	-12.5
KCYN0127	6/8/2021 14:27	43.3	38.4	0.0	18.3	128.0	128.0	-4.4	-4.4
KCYN0128	6/5/2021 15:10	50.6	42.0	0.0	7.4	139.0	139.0	-26.8	-26.7
KCYN0129	6/5/2021 14:28	56.1	43.7	0.0	0.2	125.0	125.0	-36.2	-37.3
KCYN0130	6/5/2021 11:42	45.3	34.9	0.2	19.6	115.0	115.0	-18.0	-18.0
KCYN0131	6/5/2021 11:37	54.0	41.0	0.9	4.1	113.0	117.0	-44.7	-44.5
KCYN0133	6/4/2021 14:43	53.2	40.9	0.2	5.7	127.0	129.0	-16.0	-22.7
KCYN0134	6/8/2021 15:49	46.7	40.2	0.0	13.1	115.0	115.0	-27.3	-27.1
KCYN0135	6/4/2021 15:30	50.2	41.7	0.8	7.3	126.0	127.0	-12.9	-14.3
KCYNLR04	6/8/2021 9:54	46.7	34.3	2.6	16.4	101.0	101.0	-33.1	-31.8
KCYNLR08	6/4/2021 10:34	58.9	40.3	0.5	0.3	77.0	77.0	-47.9	-47.5
KCYNLR11	6/9/2021 13:11	57.9	42.0	0.0	0.1	96.0	96.0	-0.2	-0.4

\*The following wells are approved to operate at a temperature HOV of 145°F: 37, 45, 51, 57, 58,65, 66, 71, 74, 76, 78, 86, 87, 89, 91, 98, 128 and 135. Wells 56, 75, 76, 87, and 89 are approved to operate at a temperature HOV of 156°F.

As of June 30, 2021, there are 73 vertical wells, 0 horizontal collector, and 3 LCR at KCRDF. %= percent

in. w.c.= inches in water column

degrees F= degrees Fahrenheit

HOV = Higher Operating Value

KCRDF Facility A1812 KCRDF January 1-June 30- 2021 SAR

# APPENDIX J BAAQMD CORRESPONDENCE



#### Kirby Canyon Recycling & Disposal Facility 910 Coyote Creek Golf Drive, San Jose, CA 95037

February 12, 2021

Mr. Raymond Salalila Air Quality Specialist Compliance and Enforcement Division Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, California 94105

Re: Kirby Canyon Recycling & Disposal Facility

Facility Number A1812

Request for Limited Exemption (for construction activities) from Regulation 8, Rule 34 (Solid Waste Disposal Sites), Section 303 (Landfill Surface Requirements)-Updated

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 landfill construction activities to be conducted from February 22, 2021 through April 30, 2021, at the Kirby Canyon Recycling & Disposal Facility (KCRDF) Landfill in San Jose, California. This notification is submitted pursuant to Regulation 8, Rule 34, Section 118, "Limited Exemptions for Construction Activities." The work consists of installation and repair of landfill gas (LFG) piping and laterals to improve the existing LFG collection efficiency to maintain compliance with Regulation 8, Rule 34, and is to be performed during the period of February 22, 2021 through April 30, 2021.

The construction work will include excavation and installation of new piping and laterals that will connect to existing LFG extraction wells and to the gas collection and control system (GCCS). The affected areas will then be backfilled. The work for this project includes installation and repair of piping, excavation and backfilling. 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; and
- Description of air quality mitigation measures planned.

No significant interruption of the current site LFG extraction and control operations is anticipated due to the work. The construction crew will mobilize to the site on or around February 22, 2021. We anticipate construction activities to conclude by April 30, 2021.

Unless notified otherwise, KCRDF 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 pursuant to Regulation 8, Rule 34, Section 118. Please do not hesitate to contact me at (408) 960-0770 with any questions.

Sincerely,

Kirby Canyon Recycling & Disposal Facility

Michael L. Winter

District Engineer

Cc: Loi Chau, BAAQMD

Michael L. Winter

Enrique Perez, KCRDF

Bill Louis, WM

#### **BAAQMD RULE 8-34-118 CONSTRUCTION PLAN**

#### Kirby Canyon Recycling & Disposal Facility

#### CONSTRUCTION FOR INSTALLATION AND REPAIR OF LFG PIPING

#### February 22, 2021 through April 30, 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.

Section 303 requires maintaining the concentration of organic compounds and methane below 500 parts per million by volume (ppmv) 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."

- 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 pipe 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

KCRDF 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 bench crossing. Perform bench crossing near well 87, to tie in wells 57, 123 and 56;
- Installation, repair and tie-ins of piping from well 139 to wells 126 and 37;
- Installation, repair and tie-ins of piping from well 142 to 83;
- 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, KCRDF will take the GCCS wells with ID Numbers 87, 57, 123, 139, 126, 37, 142, and 83 offline, as necessary. KCRDF 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 February 22, 2021 through April 30, 2021, and is summarized in the table below:

**Table 1 - Preliminary Construction Schedule** 

Task	Project Duration
Mobilize crew, equipment, and materials to site	Week 1
Repair and installation of piping, excavation and backfilling	Up to 8 weeks
Clean-up and demobilize crew and materials	Week 1

#### 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 of laterals and piping is independent of ongoing operations of the existing GCCS. Air quality mitigation will be provided during the installation and connection of piping 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:

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

During 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 open borings or 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
- Excavations will not be left open overnight or for periods greater than 8 hours

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

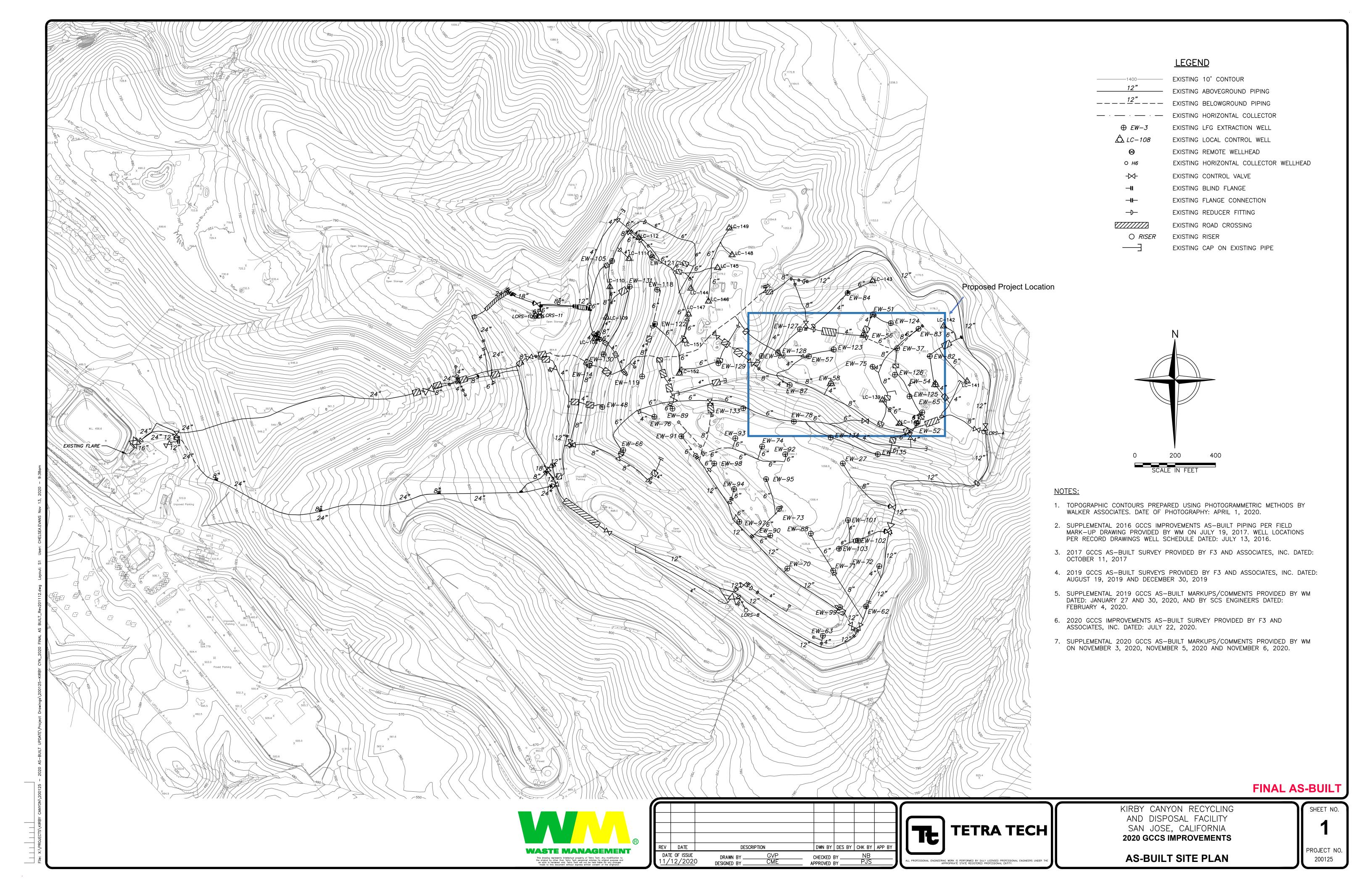
- Capping or blind flanging of all pipes and collector openings, which will remain sealed until time of connection to a vacuum source;
- Using isolation valves;
- Minimizing installation time for making each connection; and
- Minimizing the amount of open pipe during each installation, by using flange 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 KCRDF'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 – Gas Collection and Control System layout





#### KIRBY CANYON RECYCLING & DISPOSAL FACILITY A WASTE MANAGEMENT COMPANY

910 Coyote Creek Golf Drive P.O. Box 1870 Morgan Hill, CA 95037 (408) 779-2206 (408) 779-5165 Fax

March 12, 2021

Ms. Loi Chau Air Quality Engineer Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105

Subject: Decommissioning Notification for One Vertical Well Facility Number A1812 Kirby Canyon Recycling & Disposal Facility, San Jose, California

Dear Ms. Chau,

This letter is to notify the Bay Area Air Quality Management District (BAAQMD) of the decommissioning of one vertical landfill gas (LFG) well 37 on March 4, 2021, at the Kirby Canyon Recycling & Disposal Facility (KCRDF), pursuant to Title V Permit Condition Number 1437 Part 6, as modified by Application Number 27673.

As stated in the most recent well Decommissioning notification letter submitted on October 15, 2020, there were 74 vertical LFG collection wells, 0 horizontal collectors and 3 LCRS connected to the GCCS at the KCRDF. After the completion of these well actions, the KCRDF current GCCS component count and remaining permitted actions per Application Number 27673 are listed in the following table:

Well Action Per Application #27673	Vertical Decommissioning	Vertical Installation Actions	Vertical Replacement Actions	Decomr	izontal missioning tions	Insta	zontal allation tions
	VW	VW	VW	НС	LCRS	НС	LCRS
Permitted Actions	40	50	103	5	8	2	15
Actions Performed	25	37	0	3	0	0	0
Remaining Actions	15	13	103	2	8	2	15
Current Active Well Count		73 vertical L	FG wells, 0 HC	C and 3 L	.CRS		

HC= Horizontal Trench Collectors; LCRS= Leachate Cleanout Riser; VW= Vertical Wells

If you have any questions or need any additional information, please do not hesitate to contact me at (408) 960-0769.

Sincerely,

Kirby Canyon Recycling & Disposal Facility

Becky Azevedo Technical Manager

cc: Bill Louis, KCRDF Mike Winter, KCRDF From: Phadnis, Rajan

To: <u>"compliance@baaqmd.gov"</u>

Cc: Perez, Enrique; Azevedo, Becky; "ephillips@baaqmd.gov"; Phadnis, Rajan

Subject: KCRDF-A1812- Title V Section I.F 10-day Title V Report

**Date:** Friday, March 19, 2021 3:08:21 PM

Attachments: KCRDF NOV 57374-10 day Title V written report 03.19.2021.pdf

Attached is the 10-day Title V report for BAAQMD Notice of Violation A-57374, dated March 12, 2021, for Kirby Canyon Recycling and Disposal Facility- A1812.

Thank you,
Rajan Phadnis
rphadnis@wm.com
Kirby Canyon Disposal and Recycling Facility
910 Coyote Creek Golf Road
San Jose, CA 95037



#### KIRBY CANYON RECYCLING & DISPOSAL FACILITY A WASTE MANAGEMENT COMPANY

910 Coyote Creek Golf Drive P.O. Box 1870 Morgan Hill, CA 95037 (408) 779-2206 (408) 779-5165 Fax

March 19, 2021 (via email: compliance@baaqmd.gov)

Director of Compliance and Enforcement Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, California 94105

Attn: Title V Reports

Re: Kirby Canyon Recycling & Disposal Facility, San Jose, CA. Facility Number A1812,

Section I.F Title V, 10-Day written report

#### Dear Sir or Madam:

Waste Management of California, Inc. d/b/a Kirby Canyon Recycling & Disposal Facility ("KCRDF") is submitting this 10-day written report to the Bay Area Air Quality Management District (BAAQMD) as required under Title V Permit Condition Section I.F for KCRDF. On March 12, 2021, Erin Phillips, Bay Area Air Quality Management District (BAAQMD) Air Quality Inspector, issued Notice of Violation ("NOV") Number A-57372, (see attachment) for alleged temporary flare shutdown events caused by unplanned utility power outages on January 2 and 9, February 9 and 11, March 17, April 3, May 8, 9, and 27, June 9 and 30, July 12, August 24, September 27, and December 29, 2020 ("NOV Dates"). The NOV alleges violation of:

- 1. Regulation 2, Section 1-307 "...shall not operate any...equipment...for which an authority to construct or permit to operate has been issued, in violation of any permit condition imposed pursuant to Section 2-1-403 [Permit Conditions]." ("2-1-307")
- 2. Regulation 1, Section 523.3 "...violation of permit conditions or District regulations to which the source is required to conform...shall be reported to the APCO within 96 hours after such occurrence...." ("1-523.3")
- 3. Regulation 8 Section 34-301.1 "...gas collection and emission control systems are operated continuously..." ("8-34-301.1")

The unplanned power outage shutdowns noted in the NOV did not result in emissions and do not qualify as non-compliance. The downtime recorded for each of the events noted on the NOV was significantly less than 24 hours per event. KCRDF believes that it complied with the Title V permit conditions and safety protocols. KCRDF followed all measures to ensure gas movers and valves were closed during the shutdown events. KCRDF's downtime events were not the result of equipment malfunction, knowing, willful, intentional, chronic nor committed by a recalcitrant, and did not benefit KCRDF economically nor result in a nuisance. The frequency and duration of weather or utility-related electrical interruptions are outside of KCRDF's control.

KCRDF is committed to operating its landfill in compliance with applicable regulations and will ensure that compliance is achieved. However, KCRDF disagrees with the BAAQMD that temporary shutdowns resulting from unplanned power outages are violations of any BAAQMD regulation. As required, a 30-day follow-up letter will confirm the contents of this submittal.

If you have any questions or need any additional information please do not hesitate to contact me at (408) 779-2206.

Sincerely,

Kirby Canyon Recycling & Disposal Facility

Enrique Perez District Manager

cc: Erin Phillips, BAAQMD

Attachment: Copy of BAAQMD Notice of Violation A-57374



## BAY AREA BAY AREA BAY AREA AIR QUALITY MANAGEMENT DISTRICT AIR QUALITY MANAGEMENT 375 Beale Street, Suite 600, San Francisco, CA 94105 (415) 749-5000

NOTICE OF VIOLATIO	No. A57374
ISSUED TO: Kirby Canyon Recycling and Dispo	osal Facility PGGN# A1812
ADDRESS: 910 Coyote Creek Golf Drive	
CITY: San Jose	STATE: CA ZIP: 95111
PHONE: (408 ) <u>960-0769</u>	
✓ N# Mailing Address on F61	
OCCURRENCE	
NAME:	
ADDRESS:	Same As Above
CITY:	ZIP
SOURCE: S#1 NAME: Landfill with	Gas Collection System
EMISSION PT: P# NAME:	
DATE: 1/2/20 - 12/29/20 15 Days -	TIME: HRS
REG 2 RULE 1 SEC 301	REG 2 RULE 1 SEC 302
No Authority to Construct	No Permit to Operate
REG 1 SEC 301	REG 2 RULE 1_SEC 307
H & S CODE - 41700 Public Nuisance	Failure to Meet Permit Condition
REG 5 SEC 301	REG 6 RULE 1 SEC 301
Prohibited Open Burning	Excessive Visible Emissions
$ Arr$ REG $rac{8}{r}$ RULE $rac{34}{r}$ SECTION	
REG 1 RULE SECTION	ON <u>523.3</u> CODE
Details: Min. flare temp P.C. 1437, gas collection	n not operated continuously, RCA's not reported
RECIPIENT NAME: Enrique Perez	
TITLE: District Manager	/
SIGNING THIS NOTICE IS NOT AN ADMISSION OF GUILT X	seen [_
DESCRIPTION OF THE IMMEDIATION TAKEN TO PREVENT CONTINUED	TANTIAL PENALTY, YOUR RESPONSE
ISSUED BY; Erin Phillips	INSP #
DATE: 3/12/21	TIME: 1430 HRS ✓ MAILED

#### INSTRUCTIONS

#### PERMIT VIOLATIONS - (REG 2, RULE 1, SECTION 301 AND/OR 302)

Within 30 days, a permit application must be submitted to the District's Permit Division. The permit application must reference the Violation Notice Number Shown on the front of this notice. If either the Violation Notice Number is not referenced or no permit application is received, then this matter will be referred to the District's Legal Department for legal action. Your response does not preclude further legal action.

If there are any questions regarding the submission of a Permit Application, call the Permit Services Division at (415) 749-4990.

#### ALL OTHER VIOLATIONS

Within 10 days, return a copy of this notice with a written description of the corrective action you have taken to prevent continued or recurrent violation. Immediate corrective action must be taken to stop the violation. This violation is subject to substantial penalty. Your response does not preclude further legal action.

A variance should be sought if it is necessary to continue to operate in violation of District Regulations. For information on eligiblity for, or filing of, a variance, call (415) 749-5073.

From: Phadnis, Rajan

To: <u>"compliance@baaqmd.gov"</u>

Cc: Perez, Enrique; Azevedo, Becky; Phadnis, Rajan; "ephillips@baaqmd.gov"

Subject: KCRDF-A1812 10-Day NOV Response to BAAQMD NOV A-57374

**Date:** Friday, March 19, 2021 3:09:41 PM

Attachments: KCRDF 10 day NOV 57374- power outages response 03.19.2021.pdf

Attached is the 10-day NOV response letter for BAAQMD Notice of Violation A-57374, dated March 12, 2021, for Kirby Canyon Recycling and Disposal Facility- A1812.

Thank you,
Rajan Phadnis
rphadnis@wm.com
Kirby Canyon Disposal and Recycling Facility
910 Coyote Creek Golf Road
San Jose, CA 95037





910 Coyote Creek Golf Drive P.O. Box 1870 Morgan Hill, CA 95037 (408) 779-2206 (408) 779-5165 Fax

March 19, 2021 (via email: compliance@baaqmd.gov)

Director of Compliance and Enforcement Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, California 94105

Attn: Title V Reports

Re: Kirby Canyon Recycling & Disposal Facility, San Jose, CA, Facility Number A1812 10-Day NOV Response to BAAQMD Notice of Violation A-57374, Dated March 12, 2021

#### Dear Sir or Madam:

Waste Management of California, Inc. d/b/a Kirby Canyon Recycling & Disposal Facility ("KCRDF") is submitting this 10-day NOV response letter<sup>1</sup> to Notice of Violation ("NOV") Number A-57372 dated March 12, 2021, (see attachment) for alleged temporary flare shutdown events caused by unplanned utility power outages allegedly on January 2 and 9, February 9 and 11, March 17, April 3, May 8, 9, and 27, June 9 and 30, July 12, August 24, September 27, and December 29, 2020 ("NOV Dates"). A signed copy of the NOV is attached. KCRDF Flare data for these dates is attached. The NOV alleges violation of:

- 1. Regulation 2, Section 1-307 "...shall not operate any...equipment...for which an authority to construct or permit to operate has been issued, in violation of any permit condition imposed pursuant to Section 2-1-403 [Permit Conditions]." ("2-1-307")
- 2. Regulation 1, Section 523.3 "...violation of permit conditions or District regulations to which the source is required to conform...shall be reported to the APCO within 96 hours after such occurrence...." ("1-523.3")
- 3. Regulation 8 Section 34-301.1 "...gas collection and emission control systems are operated continuously..." ("8-34-301.1")

Alleged violations of 2-1-307 and 1-523.3 are predicated on an alleged violation of 8-34-301.1. However, KCRDF was not in violation of 8-34-301.1. The alleged NOV Dates had unforeseeable and unpreventable power outages at KCRDF.

Regulation 8, Rule 34, Section 113 ("8-34-113") Limited Exemption, Inspection and Maintenance, states that "requirements of Sections 8-34-301...shall not apply to solid waste sites

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<sup>&</sup>lt;sup>1</sup> KCRDF submitted its 10-day Title V letter to BAAQMD on March 19, 2021, under Title V Permit Condition Section I.F.

during inspection and maintenance of the landfill gas collection or emission control system..." KCRDF appropriately reported flare downtime events under 8-34-113, as each event required inspection and maintenance during the downtime. These events were reported in KCRDF's startup and shutdown logs in its semi-annual reports. Startup could begin only after the restoration of power by the utility company and KCRDF's safety and environmental inspection and maintenance process for flare startup and emission minimization. Further, the exemption in 8-34-113 applies as KCRDF met the requirement that the "gas collection and emission control systems are not shutdown for more than 240 hours in any calendar year." As KCRDF did not violate 8-34-301.1, it also did not violate 2-1-307 nor 1-523.3.

BAAQMD's apparent interpretation that 8-34-113 does not apply where inspection and maintenance has occurred simply because an unplanned power shutoff event also occurred leads to a result that may create harm to health, safety and/or the environment. Automatically restarting flares and auxiliary equipment (blower skid, air compressor, condensate injection system, PLC and data logger, etc.) without a safety and environmental inspection and/or maintenance may cause serious health, safety and/or environmental concerns. Similarly, using an automatic backup generator would have the same concerns, with the addition of potential additional emissions associated with the generator. Further, switching between a generator and the power system creates additional downtime, as does refueling or other issues that may be associated with use of a generator.

KCRDF additionally asserts that the downtime events did not: 1) interfere with attainment of the BAAQMD, federal, or state standards; 2) endanger health, safety, or welfare of any person; 3) endanger the environment; 4) increase emissions of toxic air contaminants; 5) cause or contribute to a violation of a SAAQS or NAAQS; 6) interfere with the BAAQMD's compliance work; nor 7) result in emissions exceeding de minimis levels. Moreover, KCRDF's downtime events were not the result of equipment malfunction, knowing, willful, intentional, chronic nor committed by a recalcitrant, and did not benefit KCRDF economically nor result in a nuisance. The frequency and duration of weather or utility-related electrical interruptions are outside of KCRDF's control but in either case, best practice requires inspection and/or maintenance prior to startup and, therefore, is reported as such.

For the above reasons, KCRDF asserts that it did not violate 2-1-307, 1-523.3 nor 8-34-301.1 and respectfully requests the NOV be rescinded.

Despite its objections, at BAAQMD's request, KCRDF has also focused its efforts toward a solution to reduce power outage downtime hours by reconfiguring the existing electrical panel for transfer switch operation and adding a backup generator to serve as an emergency power source. KCRDF has taken the following proactive steps:

- KCRDF installed a manual transfer switch to reduce the time for switching between utility power and generator.
- KCRDF procured a new emergency generator and automatic transfer switch (ATS).
- KCRDF hired a certified electrical contractor to reconfigure the existing panels to the new generator unit.

• KCRDF is currently in the process of obtaining electrical permit for the ATS from the City of San Jose, CA.

KCRDF is committed to operating its landfill in compliance with applicable regulations and requests a meeting with BAAQMD executive staff to discuss Regulation 8-34-301.1. We may also supplement this response in the future. If you have any questions or need any additional information, please do not hesitate to contact me at (408) 779-2206.

Sincerely,

Kirby Canyon Recycling & Disposal Facility

Enrique Perez District Manager

cc: Erin Phillips, BAAQMD

Attachments: Copy of BAAQMD Notice of Violation A-57374

KCRDF Flare Data



## BAY AREA BAY AREA BAY AREA AIR QUALITY MANAGEMENT DISTRICT AIR QUALITY MANAGEMENT 375 Beale Street, Suite 600, San Francisco, CA 94105 (415) 749-5000

NOTICE OF VIOLATIO	No. A57374
ISSUED TO: Kirby Canyon Recycling and Dispo	osal Facility PGGN# A1812
ADDRESS: 910 Coyote Creek Golf Drive	
CITY: San Jose	STATE: CA ZIP: 95111
PHONE: (408 ) <u>960-0769</u>	
✓ N# Mailing Address on F61	
OCCURRENCE	
NAME:	
ADDRESS:	Same As Above
CITY:	ZIP
SOURCE: S#1 NAME: Landfill with	Gas Collection System
EMISSION PT: P# NAME:	
DATE: 1/2/20 - 12/29/20 15 Days -	TIME: HRS
REG 2 RULE 1 SEC 301	REG 2 RULE 1 SEC 302
No Authority to Construct	No Permit to Operate
REG 1 SEC 301	REG 2 RULE 1_SEC 307
H & S CODE - 41700 Public Nuisance	Failure to Meet Permit Condition
REG 5 SEC 301	REG 6 RULE 1 SEC 301
Prohibited Open Burning	Excessive Visible Emissions
$ Arr$ REG $rac{8}{r}$ RULE $rac{34}{r}$ SECTION	
REG 1 RULE SECTION	ON <u>523.3</u> CODE
Details: Min. flare temp P.C. 1437, gas collection	n not operated continuously, RCA's not reported
RECIPIENT NAME: Enrique Perez	
TITLE: District Manager	/
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DESCRIPTION OF THE IMMEDIATION TAKEN TO PREVENT CONTINUED	TANTIAL PENALTY, YOUR RESPONSE
ISSUED BY; Erin Phillips	INSP #
DATE: 3/12/21	TIME: 1430 HRS ✓ MAILED

#### INSTRUCTIONS

#### PERMIT VIOLATIONS - (REG 2, RULE 1, SECTION 301 AND/OR 302)

Within 30 days, a permit application must be submitted to the District's Permit Division. The permit application must reference the Violation Notice Number Shown on the front of this notice. If either the Violation Notice Number is not referenced or no permit application is received, then this matter will be referred to the District's Legal Department for legal action. Your response does not preclude further legal action.

If there are any questions regarding the submission of a Permit Application, call the Permit Services Division at (415) 749-4990.

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Within 10 days, return a copy of this notice with a written description of the corrective action you have taken to prevent continued or recurrent violation. Immediate corrective action must be taken to stop the violation. This violation is subject to substantial penalty. Your response does not preclude further legal action.

A variance should be sought if it is necessary to continue to operate in violation of District Regulations. For information on eligiblity for, or filing of, a variance, call (415) 749-5073.

#### **KCRDF Flare Data**

Flare shutdown due to power interruptions (power outage/surge/single phasing) during the following events

Date	Duration	Event Reason
1/2/2020	9.37	Outage
1/9/2020	7.73	Outage
2/9/2020	3.23	Outage
2/11/2020	2.57	Single-phasing
3/17/2020	0.43	Surge
4/3/2020	1.6	Surge
5/8/2020	1.23	Outage
5/9/2020	0.4	Outage
5/27/2020	0.4	Outage
6/9/2020	2.47	Outage
6/30/2020	0.3	Surge
7/12/2020	2.27	Surge
8/24/2020	0.97	Outage
9/27/2020	8.87	Outage
12/29/2020	0.6	Surge

### Kirby Canyon Recycling and Disposal Facility

		CH01 Flare		CH02 Flare	
5 /	<del>-</del> -	F		SCFM	
Date	Time	MIN	MAX	MIN	MAX
2020/01/02	22:00:00	1666	1684	2295	2394
2020/01/02	22:02:00	1667	1672	2298	2421
2020/01/02	22:04:00	1662	1688	2297	2401
2020/01/02	22:06:00	1664	1684	2287	2381
2020/01/02	22:08:00	1666	1674	2310	2409
2020/01/02	22:10:00	1667	1677	2280 2300	2387 2400
2020/01/02 2020/01/02	22:12:00 22:14:00	1673 1664	1681 1677	2300 2273	2386
2020/01/02	22:14:00	1660	1677	2273 2294	2408
2020/01/02	22:18:00	1662	1686 1684	2294	2381
2020/01/02	22:10:00	1666	1681	2282	2396
2020/01/02	22:22:00	1664	1677	2303	2388
2020/01/02	22:24:00	1664	1691	2303	2383
2020/01/02	22:26:00	1664	1686	2313	2406
2020/01/02	22:28:00	1663	1681	2269	2400
2020/01/02	22:30:00	1676	1683	2292	2401
2020/01/02	22:32:00	1662	1677	2264	2391
2020/01/02	22:34:00	1667	1683	2274	2425
2020/01/02	22:36:00	1669	1681	2303	2392
2020/01/02	22:38:00	1669	1679	2292	2398
2020/01/02	22:40:00	1660	1676	2299	2396
2020/01/02	22:42:00	1669	1689	2267	2385
2020/01/02	22:44:00	1663	1683	2305	2395
2020/01/02	22:46:00	1671	1681	2272	2378
2020/01/02	22:48:00	1669	1672	2272	2394
2020/01/02	22:50:00	1666	1686	2277	2397
2020/01/02	22:52:00	1664	1683	2269	2380
2020/01/02	22:54:00	1665	1684	2300	2380
2020/01/02	22:56:00	1660	1684	2292	2378
2020/01/02	22:58:00	1669	1686	2285	2394
2020/01/02	23:00:00	1666	1670	2274	2385
2020/01/02	23:02:00	1664	1693	2285	2419
2020/01/02	23:04:00	1664	1681	2280	2398
2020/01/02	23:06:00	1667	1677	2308	2388
2020/01/02	23:08:00	1666	1674	2289	2406
2020/01/02	23:10:00	1672	1688	2308	2400
2020/01/02	23:12:00	1659	1679	2280	2386
2020/01/02	23:14:00	1660	1686	2299	2389
2020/01/02	23:16:00	1660	1686	2284	2388
2020/01/02	23:18:00	1659	1689	2292	2406
2020/01/02	23:20:00	1664	1683	2305	2398
2020/01/02	23:22:00	1666	1670	2294	2403
2020/01/02	23:24:00	1666	1691	2274	2378
2020/01/02	23:26:00	1666	1681	2310	2388
2020/01/02	23:28:00	1661	1683	2295	2384
2020/01/02	23:30:00	1669	1681	2298	2384

2020/01/03
2020/01/03 01:12:00 2020/01/03 01:14:00

2020/01/03	01:16:00
2020/01/03	01:18:00
2020/01/03	01:20:00
2020/01/03	01:22:00
2020/01/03	01:24:00
2020/01/03	01:26:00
2020/01/03	01:28:00
2020/01/03	01:30:00
2020/01/03	01:32:00
2020/01/03	01:34:00
2020/01/03	01:36:00
2020/01/03	01:38:00
2020/01/03	01:40:00
2020/01/03	01:42:00
2020/01/03	01:44:00
2020/01/03	01:46:00
2020/01/03	01:48:00
2020/01/03	01:50:00
2020/01/03	01:52:00
2020/01/03	01:54:00
2020/01/03	01:56:00
2020/01/03	01:58:00
2020/01/03	02:00:00
2020/01/03	02:02:00
2020/01/03	02:04:00
2020/01/03	02:06:00
2020/01/03 2020/01/03	02:08:00 02:10:00
2020/01/03	02:10:00
2020/01/03	02:12:00
2020/01/03	02:14:00
2020/01/03	02:18:00
2020/01/03	02:20:00
2020/01/03	02:22:00
2020/01/03	02:24:00
2020/01/03	02:26:00
2020/01/03	02:28:00
2020/01/03	02:30:00
2020/01/03	02:32:00
2020/01/03	02:34:00
2020/01/03	02:36:00
2020/01/03	02:38:00
2020/01/03	02:40:00
2020/01/03	02:42:00
2020/01/03	02:44:00
2020/01/03	02:46:00
2020/01/03	02:48:00
2020/01/03	02:50:00
2020/01/03	02:52:00
2020/01/03	02:54:00
2020/01/03	02:56:00
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2020/02/11	12:10:00	1506	1693	2611	2773
2020/02/11	12:12:00	1674	1707	2593	2722
2020/02/11	12:14:00	1668	1688	2569	2652
2020/02/11	12:16:00	1671	1687	2532	2668
2020/02/11	12:18:00	1661	1677	2534	2647
2020/02/11	12:20:00	1663	1688	2500	2642
2020/02/11	12:22:00	1664	1683	2500	2622
2020/02/11	12:24:00	1661	1674	2482	2628
2020/02/11	12:26:00	1669	1686	2505	2607
2020/02/11	12:28:00	1664	1677	2488	2586
2020/02/11	12:30:00	1667	1674	2484	2579
2020/02/11	12:32:00	1663	1683	2470	2587
2020/02/11	12:34:00	1662	1681	2468	2590
2020/02/11	12:36:00	1668	1683	2480	2580
2020/02/11	12:38:00	1666	1680	2460	2587
2020/02/11	12:40:00	1663	1678	2456	2578
2020/02/11	12:42:00	1667	1688	2461	2578
2020/02/11	12:44:00	1658	1685	2446	2562
2020/02/11	12:46:00	1666	1689	2453	2575
2020/02/11	12:48:00	1663	1680	2453	2562
2020/02/11	12:50:00	1659	1686	2463	2542
2020/02/11	12:52:00	1663	1688	2455	2553
2020/02/11	12:54:00	1659	1687	2461	2548
2020/02/11	12:56:00	1656	1684	2453	2583
2020/02/11	12:58:00	1666	1688	2448	2555
2020/02/11	13:00:00	1663	1691	2446	2532

		CH01 Flare		CH02 Flare	
		F		SCFM	
Date	Time	MIN	MAX	MIN	MAX
2020/03/17	15:00:00	1665	1683	2235	2351
2020/03/17	15:02:00	1660	1679	2228	2352
2020/03/17	15:04:00	1667	1679	2222	2342
2020/03/17	15:06:00	1660	1683	2223	2343
2020/03/17	15:08:00	1661	1684	2267	2358
2020/03/17	15:10:00	1663	1686	2256	2363
2020/03/17	15:12:00	1661	1686	2239	2332
2020/03/17	15:14:00	1660	1688	2243	2363
2020/03/17	15:16:00	1662	1687	2235	2348
2020/03/17	15:18:00	1663	1686	2248	2369
2020/03/17	15:20:00	1663	1679	2246	2347
2020/03/17	15:22:00	1665	1686	2253	2360
2020/03/17	15:24:00	1666	1677	2268	2340
2020/03/17	15:26:00	1668	1678	2241	2335
2020/03/17	15:28:00	1667	1686	2244	2347
2020/03/17	15:30:00	1656	1686	2254	2365
2020/03/17	15:32:00	1661	1685	2236	2337
2020/03/17	15:34:00	1663	1683	2225	2344
2020/03/17	15:36:00	1666	1683	2238	2350
2020/03/17	15:38:00	1663	1676	2243	2350
2020/03/17	15:40:00	1662	1685	2240	2369
2020/03/17	15:42:00	1663	1683	2256	2342
2020/03/17	15:44:00	1661	1681	2222	2335
2020/03/17	15:46:00	1665	1676	2238	2347
2020/03/17	15:48:00	1667	1688	2246	2360
2020/03/17	15:50:00	1662	1684	2232	2373
2020/03/17	15:52:00	1662	1684	2238	2348
2020/03/17	15:54:00	1671	1684	2221	2352
2020/03/17	15:56:00	1668	1677	2223	2344
2020/03/17	15:58:00	1662	1677	2199	2335
2020/03/17	16:00:00	1661	1688	2230	2348
2020/03/17	16:02:00	1587	1638	-361	-358
2020/03/17	16:04:00	1155	1587	-411	96
2020/03/17	16:06:00	899	1155	-3	22
2020/03/17	16:08:00	741	899	-3	-3
2020/03/17	16:10:00	624	741	-3	-2
2020/03/17	16:12:00	537	624	-3	-2
2020/03/17	16:14:00	471	537	-3	-2
2020/03/17	16:16:00	417	471	-3	-2
2020/03/17	16:18:00	373	417	-3	-2
2020/03/17	16:20:00	335	373	-3	-2
2020/03/17	16:22:00	303	335	-3	-2
2020/03/17	16:24:00	272	303	-3	-2
2020/03/17	16:26:00	241	272	-3	-2
2020/03/17	16:28:00	231	465	-3	3433

2020/03/17	16:30:00	465	1091	2261	2915
2020/03/17	16:32:00	1091	1503	2355	2552
2020/03/17	16:34:00	1503	1654	2392	2513
2020/03/17	16:36:00	1643	1680	2351	2497
2020/03/17	16:38:00	1662	1681	2391	2477
2020/03/17	16:40:00	1663	1675	2379	2482
2020/03/17	16:42:00	1650	1688	2366	2457
2020/03/17	16:44:00	1660	1686	2343	2470
2020/03/17	16:46:00	1662	1684	2363	2457
2020/03/17	16:48:00	1668	1684	2380	2459
2020/03/17	16:50:00	1663	1671	2358	2459
2020/03/17	16:52:00	1669	1690	2348	2484
2020/03/17	16:54:00	1662	1684	2347	2441
2020/03/17	16:56:00	1663	1686	2327	2433
2020/03/17	16:58:00	1666	1684	2357	2428
2020/03/17	17:00:00	1667	1672	2332	2418
2020/03/17	17:02:00	1669	1691	2322	2444
2020/03/17	17:04:00	1662	1686	2330	2431
2020/03/17	17:06:00	1660	1693	2324	2426
2020/03/17	17:08:00	1669	1686	2309	2434
2020/03/17	17:10:00	1663	1688	2351	2433
2020/03/17	17:12:00	1662	1688	2320	2426
2020/03/17	17:14:00	1663	1681	2314	2426
2020/03/17	17:16:00	1673	1683	2308	2428
2020/03/17	17:18:00	1662	1679	2320	2425
2020/03/17	17:20:00	1669	1676	2291	2413
2020/03/17	17:22:00	1669	1677	2309	2406
2020/03/17	17:24:00	1676	1683	2294	2451
2020/03/17	17:26:00	1661	1684	2317	2399
2020/03/17	17:28:00	1662	1681	2296	2435
2020/03/17	17:30:00	1669	1674	2297	2404

		CH01 Flare		CH02 Flare	
		F		SCFM	
Date	Time	MIN	MAX	MIN	MAX
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2020/04/03	08:04:00	1660	1686	2304	2406
2020/04/03	08:06:00	1660	1684	2317	2400
2020/04/03	08:08:00	1660	1681	2290	2398
2020/04/03	08:10:00	1662	1686	2290	2410
2020/04/03	08:12:00	1664	1686	2311	2401
2020/04/03	08:14:00	1667	1686	2282	2406
2020/04/03	08:16:00	1667	1673	2292	2404
2020/04/03	08:18:00	1667	1672	2297	2419
2020/04/03	08:20:00	1669	1686	2320	2393
2020/04/03	08:22:00	1660	1683	2304	2396
2020/04/03	08:24:00	1669	1687	2295	2408
2020/04/03	08:26:00	1662	1674	2290	2383
2020/04/03	08:28:00	1674	1680	2310	2419
2020/04/03	08:30:00	1671	1676	2303	2404
2020/04/03	08:32:00	1665	1689	2295	2398
2020/04/03	08:34:00	1664	1683	2310	2401
2020/04/03	08:36:00	1665	1684	2303	2422
2020/04/03	08:38:00	1657	1687	2302	2414
2020/04/03	08:40:00	1662	1684	2292	2424
2020/04/03	08:42:00	1667	1675	2297	2411
2020/04/03	08:44:00	1672	1676	2308	2417
2020/04/03	08:46:00	1669	1676	2300	2439
2020/04/03	08:48:00	1672	1677	2310	2391
2020/04/03	08:50:00	1669	1688	2312	2429
2020/04/03	08:52:00	1671	1684	2295	2429
2020/04/03	08:54:00	1664	1675	2295	2399
2020/04/03	08:56:00	1671	1675	2295	2401
2020/04/03	08:58:00	1672	1677	2298	2392
2020/04/03	09:00:00	1669	1674	2300	2407
2020/04/03	09:02:00	1517	1688	34	2419
2020/04/03	09:04:00	1045	1517	-3	34
2020/04/03	09:06:00	797	1045	-3	-2
2020/04/03	09:08:00	641	797	-3	-2
2020/04/03	09:10:00	527	641	-3	-2
2020/04/03	09:12:00	444	527	-3	-2
2020/04/03	09:14:00	377	444	-3	-2
2020/04/03	09:16:00	323	377	-3	-2
2020/04/03	09:18:00	282	323	-3	-2
2020/04/03	09:20:00	248	282	-3	-2
2020/04/03	09:22:00	224	248	-3	-2
2020/04/03	09:24:00	202	224	-3	-2
2020/04/03	09:26:00	182	202	-3	-2
2020/04/03	09:28:00	165	182	-3	-2

2020/04/03	09:30:00	150	165	-3	-2
2020/04/03	09:32:00	138	150	-3	-2
2020/04/03	09:34:00	128	138	-3	-2
2020/04/03	09:36:00	121	128	-3	-2
2020/04/03	09:38:00	115	121	-3	-2
2020/04/03	09:40:00	109	115	-3	-2 -2
2020/04/03	09:42:00	109	109	-3	-2 -2
2020/04/03	09:44:00	99	109	-3 -3	-2 -2
					-2 -2
2020/04/03	09:46:00	95	100	-3	
2020/04/03	09:48:00	92	96	-3	-2
2020/04/03	09:50:00	89	92	-3	-2
2020/04/03	09:52:00	86	89	-3	-2
2020/04/03	09:54:00	84	87	-3	-3
2020/04/03	09:56:00	82	84	-3	-2
2020/04/03	09:58:00	80	82	-3	-3
2020/04/03	10:00:00	78	80	-3	-2
2020/04/03	10:02:00	77	78	-3	-2
2020/04/03	10:04:00	75	77	-3	-3
2020/04/03	10:06:00	75	76	-3	-1
2020/04/03	10:08:00	74	75	-3	-3
2020/04/03	10:10:00	73	74	-3	-2
2020/04/03	10:12:00	72	73	-3	-2
2020/04/03	10:14:00	71	72	-3	-3
2020/04/03	10:16:00	71	71	-3	-2
2020/04/03	10:18:00	70	71	-3	-3
2020/04/03	10:20:00	70	70	-3	-3
2020/04/03	10:22:00	68	70	-3	-2
2020/04/03	10:24:00	68	69	-3	-2
2020/04/03	10:26:00	68	69	-3	-1
2020/04/03	10:28:00	68	68	-3	-3
2020/04/03	10:30:00	68	68	-3	-3
2020/04/03	10:32:00	67	68	-3	-3
2020/04/03	10:34:00	67	67	-3	-3
2020/04/03	10:36:00	65	67	-3	-1
2020/04/03	10:38:00	65	66	-3	-1
2020/04/03	10:40:00	65	76	-3	2785
2020/04/03	10:42:00	76	951	2785	3513
2020/04/03	10:44:00	951	1298	2623	3190
2020/04/03	10:46:00	1293	1563	2634	2710
2020/04/03	10:48:00	1563	1651	2624	2698
2020/04/03	10:50:00	1645	1674	2601	2669
2020/04/03	10:52:00	1661	1674	2576	2665
2020/04/03	10:54:00	1666	1679	2587	2655
2020/04/03	10:56:00	1646	1688	2577	2656
2020/04/03	10:58:00	1658	1681	2582	2676
2020/04/03	11:00:00	1660	1688	2555	2661
2020/04/03	11:02:00	1662	1679	2565	2639
2020/04/03	11:04:00	1664	1676	2539	2635
2020/04/03	11:06:00	1664	1681	2534	2623
2020/04/03	11:08:00	1666	1679	2559	2626
2020/04/03	11:10:00	1666	1691	2544	2634
2020/04/03	11:12:00	1664	1686	2544	2630

2020/04/03	11:14:00	1662	1681	2559	2628
2020/04/03	11:16:00	1662	1691	2553	2631
2020/04/03	11:18:00	1663	1681	2578	2647
2020/04/03	11:20:00	1663	1684	2580	2634
2020/04/03	11:22:00	1666	1681	2583	2637
2020/04/03	11:24:00	1666	1694	2555	2638
2020/04/03	11:26:00	1664	1695	2570	2643
2020/04/03	11:28:00	1665	1681	2573	2644
2020/04/03	11:30:00	1667	1683	2573	2647
2020/04/03	11:32:00	1664	1681	2573	2636
2020/04/03	11:34:00	1666	1681	2573	2636
2020/04/03	11:36:00	1663	1673	2583	2654
2020/04/03	11:38:00	1661	1690	2586	2644
2020/04/03	11:40:00	1660	1688	2583	2639
2020/04/03	11:42:00	1667	1676	2593	2641
2020/04/03	11:44:00	1665	1683	2563	2634
2020/04/03	11:46:00	1665	1676	2583	2634
2020/04/03	11:48:00	1661	1666	2571	2632
2020/04/03	11:50:00	1662	1669	2590	2633
2020/04/03	11:52:00	1665	1672	2570	2642
2020/04/03	11:54:00	1668	1671	2583	2634
2020/04/03	11:56:00	1667	1675	2586	2631
2020/04/03	11:58:00	1665	1674	2573	2633
2020/04/03	12:00:00	1658	1666	2573	2633

		CH01 Flare		CH02 Flare	
		F		SCFM	
Date	Time	MIN	MAX	MIN	MAX
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2020/05/08	16:34:00	1666	1686	2185	2244
2020/05/08	16:36:00	1666	1685	2151	2257
2020/05/08	16:38:00	1659	1686	2161	2267
2020/05/08	16:40:00	1661	1682	2133	2283
2020/05/08	16:42:00	1663	1685	2150	2247
2020/05/08	16:44:00	1665	1685	2138	2266
2020/05/08	16:46:00	1666	1679	2154	2266
2020/05/08	16:48:00	1675	1684	2152	2242
2020/05/08	16:50:00	1659	1686	2160	2288
2020/05/08	16:52:00	1658	1687	2139	2247
2020/05/08	16:54:00	1663	1683	2154	2247
2020/05/08	16:56:00	1668	1684	2145	2262
2020/05/08	16:58:00	1658	1685	2165	2262
2020/05/08	17:00:00	1661	1684	2165	2266
2020/05/08	17:02:00	1662	1685	2121	2269
2020/05/08	17:04:00	1670	1684	2121	2266
2020/05/08	17:06:00	1661	1681	2144	2261
2020/05/08	17:08:00	1663	1675	2155	2255
2020/05/08	17:10:00	1664	1685	2129	2264
2020/05/08	17:12:00	1664	1689	2126	2232
2020/05/08	17:14:00	1659	1689	2164	2267
2020/05/08	17:16:00	1659	1683	2129	2251
2020/05/08	17:18:00	1673	1685	2154	2269
2020/05/08	17:20:00	1664	1673	2152	2278
2020/05/08	17:22:00	1666	1681	2150	2259
2020/05/08	17:24:00	1663	1684	2147	2289
2020/05/08	17:26:00	1665	1688	2160	2266
2020/05/08	17:28:00	1669	1683	2119	2269
2020/05/08	17:30:00	1666	1675	2178	2263
2020/05/08	17:32:00	1671	1678	2141	2256
2020/05/08	17:34:00	1666	1686	2157	2263
2020/05/08	17:36:00	1664	1682	2151	2264
2020/05/08	17:38:00	1666	1675	2150	2256
2020/05/08	17:40:00	1670	1685	2136	2277
2020/05/08	17:42:00	1662	1690	2173	2276
2020/05/08	17:44:00	1659	1691	2167	2276
2020/05/08	17:46:00	1658	1685	2148	2256
2020/05/08	17:48:00	1663	1688	2172	2271
2020/05/08	17:50:00	1662	1681	2146	2233
2020/05/08	17:52:00	1663	1673	2154	2264
2020/05/08	17:54:00	1664	1690	2126	2281
2020/05/08	17:56:00	1653	1687	418	2258
2020/05/08	17:58:00	1175	1653	-6	418

2020/05/08	18:00:00	881	1175	-6	-5
2020/05/08	18:02:00	710	881	-5	-5
2020/05/08	18:04:00	587	710	-5	-5
2020/05/08	18:06:00	498	587	-5	-5
2020/05/08	18:08:00	431	498	-5	-5
2020/05/08	18:10:00	378	431	-5	-4
2020/05/08	18:12:00	334	378	-5 -5	-4
	18:14:00	296	334	-5 -5	-4 -4
2020/05/08 2020/05/08					-4 -4
	18:16:00	268	296	-5 -	
2020/05/08	18:18:00	245	268	-5	-4
2020/05/08	18:20:00	226	245	-5	-4
2020/05/08	18:22:00	209	226	-5	-4
2020/05/08	18:24:00	193	209	-5	-4
2020/05/08	18:26:00	181	193	-5	-4
2020/05/08	18:28:00	171	181	-5	-4
2020/05/08	18:30:00	161	171	-5	-4
2020/05/08	18:32:00	154	161	-5	-4
2020/05/08	18:34:00	146	154	-5	-4
2020/05/08	18:36:00	140	147	-5	-4
2020/05/08	18:38:00	135	140	-5	-4
2020/05/08	18:40:00	130	135	-5	-4
2020/05/08	18:42:00	127	130	-5	-4
2020/05/08	18:44:00	123	127	-5	-4
2020/05/08	18:46:00	120	123	-5	-4
2020/05/08	18:48:00	117	120	-5	-4
2020/05/08	18:50:00	115	118	-5	-4
2020/05/08	18:52:00	113	116	-5	-4
2020/05/08	18:54:00	111	113	-4	-4
2020/05/08	18:56:00	110	111	-4	-4
2020/05/08	18:58:00	110	111	-4	-4
2020/05/08	19:00:00	110	110	-4	-4
2020/05/08	19:02:00	108	110	-4	-4
2020/05/08	19:02:00	108	109	-4 -4	-4 -4
2020/05/08	19:04:00			-4 -5	-4 -4
		105	108		
2020/05/08	19:08:00	103	106	-4	-4
2020/05/08	19:10:00	102	103	-4	-4
2020/05/08	19:12:00	101	103	-4	-4
2020/05/08	19:14:00	99	135	-4	3264
2020/05/08	19:16:00	135	1192	2756	3264
2020/05/08	19:18:00	1192	1405	2677	2798
2020/05/08	19:20:00	1405	1598	2564	2713
2020/05/08	19:22:00	1598	1653	2551	2632
2020/05/08	19:24:00	1607	1667	2465	2601
2020/05/08	19:26:00	1657	1684	2473	2572
2020/05/08	19:28:00	1663	1672	2448	2539
2020/05/08	19:30:00	1672	1686	2387	2506
2020/05/08	19:32:00	1661	1678	2392	2492
2020/05/08	19:34:00	1659	1688	2376	2498
2020/05/08	19:36:00	1673	1681	2367	2466
2020/05/08	19:38:00	1669	1676	2328	2467
2020/05/08	19:40:00	1664	1681	2320	2437
2020/05/08	19:42:00	1658	1692	2323	2432

2020/05/08	19:44:00	1663	1674	2312	2422
2020/05/08	19:46:00	1670	1679	2313	2406
2020/05/08	19:48:00	1666	1673	2287	2432
2020/05/08	19:50:00	1673	1680	2322	2387
2020/05/08	19:52:00	1670	1679	2294	2412
2020/05/08	19:54:00	1667	1672	2289	2411
2020/05/08	19:56:00	1664	1690	2288	2378
2020/05/08	19:58:00	1660	1683	2309	2381
2020/05/08	20:00:00	1666	1675	2279	2398
2020/05/08	20:02:00	1663	1691	2284	2380
2020/05/08	20:04:00	1662	1682	2264	2381
2020/05/08	20:06:00	1673	1683	2264	2355
2020/05/08	20:08:00	1662	1677	2264	2363
2020/05/08	20:10:00	1667	1690	2255	2375
2020/05/08	20:12:00	1663	1682	2239	2358
2020/05/08	20:14:00	1657	1690	2251	2357
2020/05/08	20:16:00	1664	1692	2255	2347
2020/05/08	20:18:00	1664	1690	2266	2371
2020/05/08	20:20:00	1656	1683	2251	2363
2020/05/08	20:22:00	1665	1681	2241	2360
2020/05/08	20:24:00	1661	1683	2235	2345
2020/05/08	20:26:00	1662	1683	2240	2347
2020/05/08	20:28:00	1663	1683	2245	2332
2020/05/08	20:30:00	1663	1684	2229	2339
2020/05/08	20:32:00	1664	1688	2217	2313
2020/05/08	20:34:00	1665	1695	2228	2349
2020/05/08	20:36:00	1662	1695	2215	2318
2020/05/08	20:38:00	1666	1681	2215	2312
2020/05/08	20:40:00	1661	1679	2212	2291
2020/05/08	20:42:00	1662	1692	2194	2301
2020/05/08	20:44:00	1661	1689	2167	2314
2020/05/08	20:46:00	1659	1680	2189	2288
2020/05/08	20:48:00	1663	1678	2172	2295
2020/05/08	20:50:00	1673	1681	2166	2324
2020/05/08	20:52:00	1657	1692	2187	2281
2020/05/08	20:54:00	1660	1689	2186	2282
2020/05/08	20:56:00	1657	1691	2189	2308
2020/05/08	20:58:00	1657	1674	2174	2306
2020/05/08	21:00:00	1674	1688	2190	2273

		CH01 Flare		CH02 Flare	
		F		SCFM	
Date	Time	MIN	MAX	MIN	MAX
2020/05/09	04:30:00	1676	1681	2051	2148
2020/05/09	04:32:00	1671	1677	2033	2137
2020/05/09	04:34:00	1669	1672	2029	2142
2020/05/09	04:36:00	1669	1679	2040	2152
2020/05/09	04:38:00	1670	1688	2025	2122
2020/05/09	04:40:00	1669	1679	2051	2141
2020/05/09	04:42:00	1669	1680	2020	2132
2020/05/09	04:44:00	1665	1671	2046	2147
2020/05/09	04:46:00	1667	1684	2019	2147
2020/05/09	04:48:00	1660	1679	2054	2130
2020/05/09	04:50:00	1667	1687	2054	2132
2020/05/09	04:52:00	1667	1682	2038	2144
2020/05/09	04:54:00	1672	1685	2035	2125
2020/05/09	04:56:00	1660	1674	2049	2125
2020/05/09	04:58:00	1663	1686	2035	2127
2020/05/09	05:00:00	1662	1688	2043	2114
2020/05/09	05:02:00	1660	1682	2045	2127
2020/05/09	05:04:00	1660	1689	2036	2137
2020/05/09	05:06:00	1662	1672	2031	2132
2020/05/09	05:08:00	1672	1679	2048	2131
2020/05/09	05:10:00	1670	1677	2017	2144
2020/05/09	05:12:00	1676	1679	2038	2144
2020/05/09	05:14:00	1672	1676	2035	2127
2020/05/09	05:16:00	1666	1679	2038	2119
2020/05/09	05:18:00	1664	1688	2026	2137
2020/05/09	05:20:00	1670	1688	2043	2137
2020/05/09	05:22:00	1657	1687	2038	2124
2020/05/09	05:24:00	1662	1687	2038	2144
2020/05/09	05:26:00	1669	1683	2035	2136
2020/05/09	05:28:00	1660	1683	2035	2145
2020/05/09	05:30:00	1660	1683	2036	2148
2020/05/09	05:32:00	1657	1686	2033	2131
2020/05/09	05:34:00	1657	1685	2033	2150
2020/05/09	05:36:00	1662	1679	2048	2121
2020/05/09	05:38:00	1674	1677	2030	2126
2020/05/09	05:40:00	1667	1675	2037	2116
2020/05/09	05:42:00	1667	1675	2053	2126
2020/05/09	05:44:00	1671	1675	2040	2127
2020/05/09	05:46:00	1667	1689	2036	2140
2020/05/09	05:48:00	1660	1689	2003	2137
2020/05/09	05:50:00				
2020/05/09	05:52:00				
2020/05/09	05:54:00				
2020/05/09	05:56:00	673	708	-400	101
2020/05/09	05:58:00	595	684	-2	-1

2020/05/09	06:00:00	513	595	-2	-1
2020/05/09	06:02:00	448	514	-2	-1
2020/05/09	06:04:00	396	448	-2	-1
2020/05/09	06:06:00	353	396	-2	-1
2020/05/09	06:08:00	316	353	-2	-1
2020/05/09	06:10:00	283	316	-2	-1
2020/05/09	06:12:00	249	283	-2	-1
2020/05/09	06:14:00	232	340	-2	3156
2020/05/09	06:16:00	340	1176	2410	3035
2020/05/09	06:18:00	1176	1532	2396	2528
2020/05/09	06:20:00	1532	1639	2369	2465
2020/05/09	06:22:00	1577	1683	2336	2448
2020/05/09	06:24:00	1660	1685	2296	2408
2020/05/09	06:26:00	1660	1685	2235	2372
2020/05/09	06:28:00	1660	1681	2243	2325
2020/05/09	06:30:00	1676	1680	2241	2347
2020/05/09	06:32:00	1655	1678	2205	2347
2020/05/09	06:34:00	1662	1682	2182	2314
2020/05/09	06:36:00	1660	1679	2173	2314
2020/05/09	06:38:00	1674	1681	2155	2271
2020/05/09	06:40:00	1663	1678	2152	2256
2020/05/09	06:42:00	1660	1684	2148	2266
2020/05/09	06:44:00	1665	1682	2142	2239
2020/05/09	06:46:00	1662	1686	2136	2256
2020/05/09	06:48:00	1662	1682	2144	2239
2020/05/09	06:50:00	1662	1685	2127	2243
2020/05/09	06:52:00	1665	1676	2137	2221
2020/05/09	06:54:00	1667	1680	2120	2221
2020/05/09	06:56:00	1669	1681	2126	2248
2020/05/09	06:58:00	1664	1680	2104	2213
2020/05/09	07:00:00	1667	1681	2133	2218
2020/05/09	07:02:00	1664	1676	2107	2220
2020/05/09	07:04:00	1674	1679	2115	2220
2020/05/09	07:06:00	1676	1680	2118	2221
2020/05/09	07:08:00	1660	1679	2117	2210
2020/05/09	07:10:00	1660	1675	2107	2208
2020/05/09	07:12:00	1674	1682	2109	2245
2020/05/09	07:14:00	1667	1683	2110	2227
2020/05/09	07:16:00	1664	1682	2097	2194
2020/05/09	07:18:00	1670	1681	2110	2227
2020/05/09	07:20:00	1669	1671	2117	2193
2020/05/09	07:22:00	1666	1676	2080	2194
2020/05/09	07:24:00	1676	1682	2099	2204
2020/05/09	07:26:00	1662	1677	2097	2206
2020/05/09	07:28:00	1660	1683	2098	2198
2020/05/09	07:30:00	1662	1684	2107	2181
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		CH01 Flare		CH02 Flare	
Date	Time	F MIN	MAX	SCFM MIN	MAX
2020/05/27	17:00:00	1661	1686	2058	2132
2020/05/27	17:00:00	1671	1685	2036	2146
2020/05/27	17:02:00	1657	1689	2070	2124
2020/05/27	17:04:00	1659	1684	2056	2160
2020/05/27	17:08:00	1670	1677	2056	2160
2020/05/27	17:00:00	1669	1683	2050	2162
2020/05/27	17:10:00	1667	1673	2030	2142
2020/05/27	17:12:00	1666	1680	2043	2134
2020/05/27	17:14:00	1673	1679	2076	2134
2020/05/27	17:18:00	1673	1676	2067	2155
2020/05/27	17:10:00	1672	1677	2063	2137
2020/05/27	17:20:00	1670	1677	2050	2151
2020/05/27	17:22:00	1663	1675	2025	2153
2020/05/27	17:24:00	1669		2023	2153
2020/05/27	17:28:00	1661	1685 1686	2063	2132
2020/05/27	17:28:00	1667	1681	2049	2151
2020/05/27	17:30:00	1671	1680	2059	2140
2020/05/27	17:32:00	1671	1678	2039	2136
2020/05/27	17:34:00	1673		2044	2130
2020/05/27	17:38:00	1664	1678	2033	2151
2020/05/27	17:30:00		1679 1674	2047	2134
2020/05/27	17:40:00	1666 1673	1674 1683	2049	2149
2020/05/27	17:42:00	1661	1684	2051	2149
2020/05/27	17:44:00	1667	1676	2059	2138
2020/05/27	17:48:00	1673	1685	2036	2149
2020/05/27	17:50:00	1665	1679	2043	2149
2020/05/27	17:50:00	1659	1686	2060	2136
2020/05/27	17:54:00	1661	1692	2063	2131
2020/05/27	17:54:00	1669	1681	2003	2148
2020/05/27	17:58:00	1661	1684	2056	2148
2020/05/27	18:00:00	1662	1693	2049	2146
2020/05/27	18:02:00	1659	1683	2043	2140
2020/05/27	18:04:00	1656	1683	2045	2159
2020/05/27	18:06:00	1662	1681	2062	2164
2020/05/27	18:08:00	1661	1683	2062	2138
2020/05/27	18:10:00	1665	1690	2047	2159
2020/05/27	18:12:00	1663	1687	2037	2151
2020/05/27	18:14:00	1658	1679	2030	2141
2020/05/27	18:16:00	1662	1687	2062	2135
2020/05/27	18:18:00	1662	1684	2052	2140
2020/05/27	18:20:00	1002	1001	2002	2110
2020/05/27	18:22:00				
2020/05/27	18:24:00				
2020/05/27	18:26:00				
2020/05/27	18:28:00	532	576	-387	98
	. 5.25.00	30-	5.5	551	

2020/05/27	18:30:00	503	573	-4	-4
2020/05/27	18:32:00	448	503	-4	-4
2020/05/27	18:34:00	405	448	-5	-4
2020/05/27	18:36:00	368	405	-5	-4
2020/05/27	18:38:00	335	368	-5	-4
2020/05/27	18:40:00	303	335	-5	-4
2020/05/27	18:42:00	270	303	-5	39
2020/05/27	18:44:00	263	664	39	3066
2020/05/27	18:46:00	664	1289	2341	2620
2020/05/27	18:48:00	1289	1569	2298	2419
2020/05/27	18:50:00	1569	1640	2250	2380
2020/05/27	18:52:00	1594	1668	2266	2370
2020/05/27	18:54:00	1665	1671	2264	2380
2020/05/27	18:56:00	1670	1683	2248	2375
2020/05/27	18:58:00	1668	1680	2248	2367
2020/05/27	19:00:00	1666	1677	2254	2362
2020/05/27	19:02:00	1673	1681	2253	2355
2020/05/27	19:04:00	1665	1679	2238	2324
2020/05/27	19:06:00	1658	1690	2221	2306
2020/05/27	19:08:00	1658	1689	2186	2315
2020/05/27	19:10:00	1657	1680	2175	2262
2020/05/27	19:12:00	1664	1678	2167	2270
2020/05/27	19:14:00	1672	1685	2153	2259
2020/05/27	19:16:00	1649	1685	2152	2269
2020/05/27	19:18:00	1663	1674	2155	2257
2020/05/27	19:20:00	1664	1683	2132	2249
2020/05/27	19:22:00	1671	1677	2145	2251
2020/05/27	19:24:00	1662	1676	2139	2256
2020/05/27	19:26:00	1666	1688	2137	2223
2020/05/27	19:28:00	1665	1688	2142	2228
2020/05/27	19:30:00	1665	1677	2127	2232

		CH01 Flare F		CH02 Flare SCFM	
Date	Time	MIN	MAX	MIN	MAX
2020/06/09	17:00:00	1665	1678	2064	2171
2020/06/09	17:00:00	1666	1688	2072	2167
2020/06/09	17:02:00	1659	1685	2072	2154
2020/06/09	17:04:00	1660	1687	2073	2181
2020/06/09	17:08:00	1662	1687	2054	2149
2020/06/09	17:10:00	1661	1682	2099	2173
2020/06/09	17:10:00	1658	1686	2067	2171
2020/06/09	17:14:00	1661	1685	2092	2166
2020/06/09	17:16:00	1659	1685	2058	2184
2020/06/09	17:18:00	1668	1684	2091	2178
2020/06/09	17:20:00	1661	1688	2084	2165
2020/06/09	17:22:00	1658	1688	2087	2168
2020/06/09	17:24:00	1663	1687	2077	2170
2020/06/09	17:26:00	1661	1686	2079	2160
2020/06/09	17:28:00	1669	1687	2069	2173
2020/06/09	17:30:00	1663	1681	2084	2168
2020/06/09	17:32:00	1662	1687	2080	2170
2020/06/09	17:34:00	1662	1687	2094	2153
2020/06/09	17:36:00	1664	1684	2084	2167
2020/06/09	17:38:00	1665	1684	2076	2175
2020/06/09	17:40:00	1662	1685	2082	2178
2020/06/09	17:42:00	1659	1687	2076	2153
2020/06/09	17:44:00	1662	1685	2086	2173
2020/06/09	17:46:00	1662	1683	2084	2162
2020/06/09	17:48:00	1658	1685	2074	2171
2020/06/09	17:50:00	1663	1683	2074	2165
2020/06/09	17:52:00	1662	1682	2087	2180
2020/06/09	17:54:00	1663	1694	2078	2173
2020/06/09	17:56:00	1659	1685	2078	2184
2020/06/09	17:58:00	1661	1689	2071	2178
2020/06/09	18:00:00	1665	1680	2059	2186
2020/06/09	18:02:00				
2020/06/09	18:04:00				
2020/06/09	18:06:00				
2020/06/09	18:08:00				
2020/06/09	18:10:00				
2020/06/09	18:12:00				
2020/06/09	18:14:00				
2020/06/09 2020/06/09	18:16:00 18:18:00				
2020/06/09	18:20:00				
2020/06/09	18:22:00				
2020/06/09	18:24:00				
2020/06/09	18:26:00				
2020/06/09	18:28:00				
_0_0/00/03	10.20.00				

2020/06/09	18:30:00
	18:32:00
2020/06/09	
2020/06/09	18:34:00
2020/06/09	18:36:00
2020/06/09	18:38:00
2020/06/09	18:40:00
2020/06/09	18:42:00
2020/06/09	18:44:00
2020/06/09	18:46:00
2020/06/09	18:48:00
2020/06/09	18:50:00
2020/06/09	18:52:00
2020/06/09	18:54:00
2020/06/09	18:56:00
2020/06/09	18:58:00
2020/06/09	19:00:00
2020/06/09	19:02:00
2020/06/09	19:04:00
2020/06/09	19:06:00
2020/06/09	19:08:00
2020/06/09	19:10:00
2020/06/09	19:12:00
2020/06/09	19:14:00
2020/06/09	19:16:00
2020/06/09	19:18:00
2020/06/09	19:20:00
2020/06/09	19:22:00
2020/06/09	19:24:00
2020/06/09	19:26:00
2020/06/09	19:28:00
2020/06/09	19:30:00
2020/06/09	19:32:00
2020/06/09	19:34:00
2020/06/09	19:36:00
2020/06/09	19:38:00
2020/06/09	19:40:00
2020/06/09	19:42:00
2020/06/09	19:44:00
2020/06/09	19:46:00
2020/06/09	19:48:00
2020/06/09	19:50:00
2020/06/09	19:52:00
2020/06/09	19:54:00
2020/06/09	19:56:00
2020/06/09	19:58:00
2020/06/09	20:00:00
	20:00:00
2020/06/09	
2020/06/09	20:04:00
2020/06/09	20:06:00
2020/06/09	20:08:00
2020/06/09	20:10:00
2020/06/09	20:12:00

2020/06/00	20:14:00				
2020/06/09 2020/06/09	20:14:00 20:16:00	84	86	402	75
2020/06/09	20:18:00	84	86	-402 -3	-2
2020/06/09	20:18:00	84	85	-3 -3	-2 -3
2020/06/09	20:22:00	84	85	-3	-3 -3
2020/06/09	20:22:00	82	84	-3	-3 -3
2020/06/09	20:24:00	82	83	-3	-3 -3
2020/06/09	20:28:00	82	83	-3	-3 -3
2020/06/09	20:20:00	82	476	-3	3226
2020/06/09	20:30:00	476	1572	2764	2988
2020/06/09	20:32:00	1505	1572	2657	2831
2020/06/09	20:36:00	1570	1640	2600	2724
2020/06/09	20:38:00	1598	1657	2530	2657
2020/06/09	20:40:00	1603	1676	2515	2617
2020/06/09	20:42:00	1660	1677	2447	2561
2020/06/09	20:44:00	1660	1683	2424	2518
2020/06/09	20:46:00	1660	1683	2402	2518
2020/06/09	20:48:00	1662	1687	2367	2465
2020/06/09	20:50:00	1659	1683	2331	2460
2020/06/09	20:52:00	1660	1683	2323	2430
2020/06/09	20:54:00	1673	1683	2308	2431
2020/06/09	20:56:00	1660	1681	2317	2402
2020/06/09	20:58:00	1662	1680	2315	2427
2020/06/09	21:00:00	1668	1680	2327	2435
2020/06/09	21:02:00	1659	1684	2309	2412
2020/06/09	21:04:00	1658	1684	2288	2412
2020/06/09	21:06:00	1660	1684	2298	2395
2020/06/09	21:08:00	1660	1685	2268	2420
2020/06/09	21:10:00	1660	1686	2243	2351
2020/06/09	21:12:00	1661	1686	2234	2348
2020/06/09	21:14:00	1662	1684	2232	2356
2020/06/09	21:16:00	1662	1683	2213	2333
2020/06/09	21:18:00	1666	1677	2234	2324
2020/06/09	21:20:00	1662	1681	2201	2324
2020/06/09	21:22:00	1662	1687	2202	2309
2020/06/09	21:24:00	1657	1683	2181	2301
2020/06/09	21:26:00	1666	1677	2198	2296
2020/06/09	21:28:00	1664	1689	2194	2298
2020/06/09	21:30:00	1664	1683	2192	2296
2020/06/09	21:32:00	1661	1686	2199	2293
2020/06/09	21:34:00	1660	1686	2167	2281
2020/06/09	21:36:00	1659	1684	2182	2271
2020/06/09	21:38:00	1660	1686	2179	2288
2020/06/09	21:40:00	1660	1681	2171	2293
2020/06/09	21:42:00	1665	1686	2169	2265
2020/06/09	21:44:00	1654	1683	2163	2273
2020/06/09	21:46:00	1658	1686	2169	2275
2020/06/09	21:48:00	1669	1680	2164	2304
2020/06/09	21:50:00	1661	1688	2128	2278
2020/06/09	21:52:00	1659	1685	2160	2264
2020/06/09	21:54:00	1676	1680	2138	2248
2020/06/09	21:56:00	1674	1679	2164	2250

		CH01 Flare		CH02 Flare	
		F		SCFM	
Date	Time	MIN	MAX	MIN	MAX
2020/06/30	11:00:00	1664	1690	2011	2105
2020/06/30	11:02:00	1662	1687	2009	2113
2020/06/30	11:04:00	1661	1671	2024	2118
2020/06/30	11:06:00	1671	1683	2024	2115
2020/06/30	11:08:00	1667	1676	2016	2089
2020/06/30	11:10:00	1668	1684	2002	2111
2020/06/30	11:12:00	1663	1679	2006	2100
2020/06/30	11:14:00	1663	1680	2016	2111
2020/06/30	11:16:00	1664	1680	2022	2088
2020/06/30	11:18:00	1666	1686	2027	2113
2020/06/30	11:20:00	1668	1676	2022	2119
2020/06/30	11:22:00	1668	1688	2032	2119
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2020/06/30	11:30:00	1661	1683	2008	2134
2020/06/30	11:32:00	1675	1684	2007	2127
2020/06/30	11:34:00	1671	1675	2025	2134
2020/06/30	11:36:00	1662	1679	2023	2155
2020/06/30	11:38:00	1670	1683	2017	2127
2020/06/30	11:40:00	1659	1676	2028	2121
2020/06/30	11:42:00	1663	1682	2025	2103
2020/06/30	11:44:00	1661	1684	2027	2111
2020/06/30	11:46:00	1663	1691	2035	2107
2020/06/30	11:48:00	1659	1683	2022	2127
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2020/06/30	12:02:00	1663	1688	2024	2156
2020/06/30	12:04:00	1662	1685	2033	2141
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2020/06/30	12:08:00	1661	1682	2019	2138
2020/06/30	12:10:00	1666	1681	2022	2154
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2020/06/30	13:30:00	1663	1675	2171	2284

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2020/07/12	15:34:00	1660	1681	2251	2378
2020/07/12	15:36:00	1663	1686	2265	2366
2020/07/12	15:38:00	1666	1675	2273	2359
2020/07/12	15:40:00	1665	1676	2273	2366
2020/07/12	15:42:00	1663	1691	2280	2368
2020/07/12	15:44:00	1663	1690	2280	2369
2020/07/12	15:46:00	1662	1678	2273	2372
2020/07/12	15:48:00	1664	1683	2293	2362
2020/07/12	15:50:00	1664	1680	2255	2366
2020/07/12	15:52:00	1670	1677	2266	2380
2020/07/12	15:54:00	1668	1683	2286	2365
2020/07/12	15:56:00	1676	1683	2253	2359
2020/07/12	15:58:00	1665	1680	2276	2370
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2020/07/12	16:04:00	1659	1674	2263	2372
2020/07/12	16:06:00	1671	1678	2278	2370
2020/07/12	16:08:00	1677	1682	2296	2369
2020/07/12	16:10:00	1661	1681	2298	2369
2020/07/12	16:12:00	1664	1684	2290	2357
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2020/07/12	16:28:00	1665	1689	2268	2366
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			1687	2298	2366
2020/07/12 2020/07/12	16:34:00 16:36:00	1452 1045	1678 1452	31	2366 31
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	16:42:00	540 450		-5 -	-5 -
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2020/07/12	16:46:00	394	459	-5 -	-5
2020/07/12	16:48:00	342	394	-5 -	-5
2020/07/12	16:50:00	301	342	-5	-5
2020/07/12	16:52:00	269	301	-5	-5
2020/07/12	16:54:00	243	269	-5	-5
2020/07/12	16:56:00	221	243	-5	-5
2020/07/12	16:58:00	204	221	-5 -	-5 -
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2020/07/12	17:06:00	156	164	-5	-4	
2020/07/12	17:08:00	149	156	-5	-4	
2020/07/12	17:10:00	142	149	-5	-4	
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2020/07/12	17:14:00	132	137	-5	-4	
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2020/07/12	17:18:00	125	128	-5	-4	
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2020/07/12	17:26:00	115	116	-5	-4	
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2020/07/12	17:36:00	108	109	-5	-4	
2020/07/12	17:38:00	106	108	-5	-4	
2020/07/12	17:40:00	105	106	-5	-4	
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2020/07/12	18:36:00	94	94	-5	-4	
2020/07/12	18:38:00	94	94	-5	-4	
2020/07/12	18:40:00	94	94	-5	-4	
2020/07/12	18:42:00	92	94	-5	-4	
2020/07/12	18:44:00	92	92	-5	-4	

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2020/07/12	19:00:00	1497	1582	2652	2730
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2020/07/12	19:06:00	1628	1680	2573	2642
2020/07/12	19:08:00	1656	1685	2541	2631
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2020/07/12	19:50:00	1663	1683	2318	2440
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2020/07/12	19:54:00	1657	1675	2329	2451
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2020/08/24	18:46:00	1669	1688	2056	2118
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2020/08/24	19:24:00	1669	1690	2032	2114
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2020/08/24 2020/08/24	19:36:00 19:38:00				
2020/08/24	19:36:00				
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2020/09/27	04:12:00	1664	1672	1938	2038
2020/09/27	04:14:00	1669	1683	1943	2020
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2020/09/27	04:18:00	1666	1681	1946	2025
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2020/09/27	04:24:00	1659	1683	1933	2022
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2020/09/27	04:28:00	1666	1686	1931	2022
2020/09/27	04:30:00	1666	1683	1905	2029
2020/09/27	04:32:00	1663	1683	1938	2016
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2020/09/27	04:36:00	1659	1688	1936	2036
2020/09/27	04:38:00	1662	1686	1945	2013
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2020/09/27	04:42:00	1674	1681	1935	2029
2020/09/27	04:44:00	1659	1681	1938	2032
2020/09/27	04:46:00	1669	1681	1953	2030
2020/09/27	04:48:00	1659	1679	1920	2026
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2020/09/27	04:52:00	1671	1679	1946	2026
2020/09/27	04:54:00	1666	1679	1935	2041
2020/09/27	04:56:00	1669	1672	1918	2034
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2020/09/27	05:00:00	1669	1676	1948	2024
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2020/09/27	05:16:00	1669	1686	1936	2020
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2020/09/27	05:20:00	1658	1684	1937	2022
2020/09/27	05:22:00	1521	1681	48	2036
2020/09/27	05:24:00	1038	1521	-4	51
2020/09/27	05:26:00	776	1038	-4	-3
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2020/09/27	05:34:00	373	437	-3	-3
2020/09/27	05:36:00	323	373	-3	-3
2020/09/27	05:38:00	284	323	-3	-3
2020/09/27	05:40:00	252	284	-3	-3
2020/09/27	05:42:00	226	252	-3	-3
2020/09/27	05:44:00	204	226	-3	-3
2020/09/27	05:46:00	186	204	-3	-3
2020/09/27	05:48:00	171	186	-3	-3
2020/09/27	05:50:00	157	171	-3	-3
2020/09/27	05:52:00	147	158	-3	-3
2020/09/27	05:54:00	138	147	-3	-3
2020/09/27	05:56:00	131	138	-3	-2
2020/09/27	05:58:00	123	131	-3	-2
2020/09/27	06:00:00	118	124	-3	-2
2020/09/27	06:02:00	112	118	-3	-3
2020/09/27	06:02:00	107	112	-3 -3	-3 -3
2020/09/27	06:04:00	107	107	-3 -3	-3 -2
2020/09/27	06:08:00	104			-2 -2
2020/09/27	06:06:00	97	104 100	-3 2	-2 -2
2020/09/27	06:10:00	97 95	97	-3 -3	-2 -2
2020/09/27	06.12.00	93 92	97 95	-3 -3	-2 -2
2020/09/27		92 91	93 93		
2020/09/27	06:16:00 06:18:00	91 89	93 91	-3	-2 -2
				-3	-2 -2
2020/09/27	06:20:00	87	89 87	-3	
2020/09/27	06:22:00	86	87 87	-3	-2
2020/09/27	06:24:00	85	87	-3	-2
2020/09/27	06:26:00	84	85	-3	-2
2020/09/27	06:28:00	82	84	-3	-2
2020/09/27	06:30:00	81	82	-3	-2
2020/09/27	06:32:00	80	81	-3	-2
2020/09/27	06:34:00	79 70	80	-3	-2
2020/09/27	06:36:00	78	79 70	-3	-2
2020/09/27	06:38:00	77 	78 	-3	-2
2020/09/27	06:40:00	75 	77 <b>-</b> 2	-3	-2
2020/09/27	06:42:00	<b>75</b>	76	-3	-2
2020/09/27	06:44:00	75	76 	-3	-2
2020/09/27	06:46:00	74	75	-3	-2
2020/09/27	06:48:00	74 <b>-</b> 2	74	-3	-2
2020/09/27	06:50:00	73	74	-3	-2
2020/09/27	06:52:00	73	74	-3	-2
2020/09/27	06:54:00	73	73	-3	-2
2020/09/27	06:56:00	72	73	-3	-2
2020/09/27	06:58:00	72	72	-3	-2
2020/09/27	07:00:00	71	72	-3	-2
2020/09/27	07:02:00	71	71 	-3	-2
2020/09/27	07:04:00	70	71	-3	-2
2020/09/27	07:06:00	70 <b>-</b> 0	71 	-3	-2
2020/09/27	07:08:00	70	70	-3	-2
2020/09/27	07:10:00	70	70	-3	-2
2020/09/27	07:12:00	70	70 70	-3	-2
2020/09/27	07:14:00	68	70	-3	-2

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2020/09/27	07:58:00	68	68	-3	18
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2020/09/27	08:04:00	68	68	-3	23
2020/09/27	08:06:00	68	68	-3	31
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2020/09/27	08:10:00	67	68	19	31
2020/09/27	08:12:00	67	67	19	36
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2020/09/27	08:16:00	67	67	25	36
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2020/09/27	08:52:00	68	69	50	50
2020/09/27	08:54:00	68	69	50	50
2020/09/27	08:56:00	68	69	50	52
2020/09/27	08:58:00	68	69	50	52

2020/09/27	09:00:00	68	70	50	52
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2020/09/27	09:04:00	69	70	50	52
2020/09/27	09:06:00	70	70	51	52
2020/09/27	09:08:00	70	70	50	51
2020/09/27	09:00:00	70 70	70 70	50 50	51
2020/09/27	09:12:00	70	71	49	51
2020/09/27	09:14:00	70	71	51	51
2020/09/27	09:16:00	71	71	51	51
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2020/09/27	09:30:00	72	73	51	51
2020/09/27	09:32:00	72	73	51	51
		72 72			51
2020/09/27	09:34:00		73	51	
2020/09/27	09:36:00	72	73	51	51
2020/09/27	09:38:00	72	73	50	51
2020/09/27	09:40:00	72	73	50	51
2020/09/27	09:42:00	72	74	50	51
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2020/09/27	10:14:00	75 75	75 75	50 50	51
2020/09/27	10:16:00	75 75	75 75	50 50	51
2020/09/27	10:18:00	75 	75 70	50	51
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2020/09/27	10:24:00	75	76	50	51
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2020/09/27	10:38:00	77	77	49	51
2020/09/27	10:40:00	77	77	49	50
2020/09/27	10:42:00	77	77	49	51
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2020/09/27	10:48:00	77	78	49	49
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2020/09/27	10:52:00	77	78	49	49
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2020/09/27	12:00:00	82	82	45	48
2020/09/27	12:02:00	82	82	47	48
2020/09/27	12:04:00	82	83	45	47
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2020/09/27	12:08:00	82	83	45	48
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2020/09/27	12:20:00	82	84	45	46
2020/09/27	12:22:00	84	84	45	46
2020/09/27	12:24:00	84	84	45	46
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2020/09/27	12:32:00	84	85	45	46
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2020/09/27	12:36:00	84	85	45	46
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2020/09/27	12:54:00	86	87	45	46
2020/09/27	12:54:00	86	87	45	46
2020/09/27	12:58:00	86	87	45	45
2020/09/27	13:00:00	86	87	45	45
2020/09/27	13:02:00	86	87	45 45	45 46
2020/09/27	13:04:00	86	87	45 45	46 45
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2020/09/27	13:08:00	86	87	45 45	45 46
2020/09/27	13:10:00	87	87	45 45	45
2020/09/27	13:12:00	87	87	45 45	45 46
2020/09/27	13:14:00	87	87	45 45	46
2020/09/27	13:16:00	87	87	45 45	46 45
2020/09/27	13:18:00	87	87	45 45	45 45
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2020/09/27	13:24:00	87	87	45 45	45 45
2020/09/27	13:26:00	87	87	45 45	45 45
2020/09/27	13:28:00	87	87	45 45	45 45
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2020/09/27	13:48:00	87	87	45 45	45 45
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2020/09/27	13:58:00	89	89	43	44
2020/09/27	14:00:00	89	89	43	44
2020/09/27	14:00:00	89	89	43 43	44 44
2020/09/27	14:02:00	89	89	43 43	44 44
2020/09/27	14:04:00	89	89	43 43	44 44
2020/09/27	14:08:00	89	89	43 43	44 44
2020/09/27	14:06:00	89	89	43 43	44 44
2020/03/21	14.10.00	OB	OB	43	44

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2020/09/27	14:14:00	89	90	43	44
2020/09/27	14:16:00	89	209	43	3108
2020/09/27	14:18:00	209	1312	2616	2980
2020/09/27	14:20:00	1312	1472	2564	2713
2020/09/27	14:22:00	1472	1635	2536	2630
2020/09/27	14:24:00	1582	1651	2485	2605
2020/09/27	14:26:00	1609	1669	2465	2570
2020/09/27	14:28:00	1657	1684	2441	2553
2020/09/27	14:30:00	1663	1674	2382	2524
2020/09/27	14:32:00	1667	1678	2380	2465
2020/09/27	14:34:00	1668	1676	2370	2484
2020/09/27	14:36:00	1676	1685	2359	2443
2020/09/27	14:38:00	1659	1678	2336	2430
2020/09/27	14:40:00	1661	1676	2333	2430
2020/09/27	14:42:00	1666	1686	2303	2388
2020/09/27	14:44:00	1665	1682	2293	2396
2020/09/27	14:46:00	1661	1685	2300	2380
2020/09/27	14:48:00	1663	1685	2291	2383
2020/09/27	14:50:00	1662	1684	2281	2379
2020/09/27	14:52:00	1663	1680	2272	2369
2020/09/27	14:54:00	1663	1670	2259	2357
2020/09/27	14:56:00	1663	1689	2258	2352
2020/09/27	14:58:00	1664	1688	2255	2378
2020/09/27	15:00:00	1663	1680	2244	2343
2020/09/27	15:02:00	1663	1686	2239	2346
2020/09/27	15:04:00	1663	1671	2237	2329
2020/09/27	15:06:00	1669	1688	2240	2326
2020/09/27	15:08:00	1662	1683	2222	2325
2020/09/27	15:10:00	1663	1679	2232	2333
2020/09/27	15:12:00	1664	1683	2247	2326
2020/09/27	15:14:00	1661	1674	2216	2338
2020/09/27	15:16:00	1662	1691	2226	2341
2020/09/27	15:18:00	1659	1684	2220	2334
2020/09/27	15:20:00	1659	1685	2220	2300
2020/09/27	15:22:00	1659	1683	2220	2309
2020/09/27	15:24:00	1674	1680	2216	2304
2020/09/27	15:26:00	1664	1677	2216	2295
2020/09/27	15:28:00	1664	1685	2188	2315
2020/09/27	15:30:00	1659	1683	2189	2293

### Kirby Canyon Recycling and Disposal Facility

		CH01		CH02	
		Flare		Flare	
Doto	Time	F MIN	MAX	SCFM MIN	MAX
Date 2020/12/29	13:00:00	1669	1688	2096	2199
2020/12/29	13:00:00	1656	1674	2106	2187
2020/12/29	13:02:00	1661	1677	2088	2206
2020/12/29	13:04:00	1668	1677	2106	2194
2020/12/29	13:08:00	1659	1690	2103	2194
2020/12/29	13:10:00	1658	1683	2103	2189
2020/12/29	13:12:00	1664	1683	2108	2192
2020/12/29	13:14:00	1657	1681	2104	2208
2020/12/29	13:16:00	1670	1681	2099	2207
2020/12/29	13:18:00	1665	1672	2101	2185
2020/12/29	13:20:00	1669	1677	2104	2200
2020/12/29	13:22:00	1666	1685	2081	2204
2020/12/29	13:24:00	1661	1683	2091	2209
2020/12/29	13:26:00	1658	1688	2091	2202
2020/12/29	13:28:00	1660	1688	2103	2208
2020/12/29	13:30:00	1677	1684	2118	2210
2020/12/29	13:32:00	1656	1679	2099	2216
2020/12/29	13:34:00	1659	1686	2114	2215
2020/12/29	13:36:00	1667	1687	2086	2187
2020/12/29	13:38:00	1655	1685	2093	2208
2020/12/29	13:40:00	1660	1676	2096	2207
2020/12/29	13:42:00	1676	1686	2119	2197
2020/12/29	13:44:00	1452	1677	28	2215
2020/12/29	13:46:00	1057	1452	-4	28
2020/12/29	13:48:00	809	1057	-4	-3
2020/12/29	13:50:00	649	809	-4	19
2020/12/29	13:52:00	535	649	18	22
2020/12/29	13:54:00	456	535	21	23
2020/12/29	13:56:00	396	456	21	25
2020/12/29	13:58:00	346	396	20	27
2020/12/29	14:00:00	305	346	22	27
2020/12/29	14:02:00	271	305	24	27
2020/12/29	14:04:00	243	271	25	28
2020/12/29	14:06:00	217	243	25	30
2020/12/29	14:08:00	196	217	26	30
2020/12/29	14:10:00	180	196	25	30
2020/12/29	14:12:00	164	180	25	30
2020/12/29	14:14:00	152	164	25	30
2020/12/29	14:16:00	141	152	25	32
2020/12/29	14:18:00	133	141	25	32
2020/12/29	14:20:00	125	133	27	30
2020/12/29	14:22:00	117	125	25	29
2020/12/29	14:24:00	115	454	23	3545
2020/12/29	14:26:00	454	1291	2333	2814
2020/12/29	14:28:00	1232	1438	2347	2485

2020/12/29	14:30:00	1438	1601	2376	2531
2020/12/29	14:32:00	1601	1674	2392	2503
2020/12/29	14:34:00	1657	1681	2394	2508
2020/12/29	14:36:00	1663	1681	2338	2502
2020/12/29	14:38:00	1660	1688	2352	2473
2020/12/29	14:40:00	1673	1686	2348	2447
2020/12/29	14:42:00	1668	1676	2325	2459
2020/12/29	14:44:00	1659	1686	2338	2426
2020/12/29	14:46:00	1664	1683	2316	2416
2020/12/29	14:48:00	1663	1689	2269	2409
2020/12/29	14:50:00	1667	1674	2292	2407
2020/12/29	14:52:00	1672	1677	2276	2401
2020/12/29	14:54:00	1676	1679	2262	2399
2020/12/29	14:56:00	1663	1679	2280	2381
2020/12/29	14:58:00	1660	1681	2266	2376
2020/12/29	15:00:00	1657	1686	2274	2373





910 Coyote Creek Golf Drive P.O. Box 1870 Morgan Hill, CA 95037 (408) 779-2206 (408) 779-5165 Fax

April 6, 2021 (via email:compliance@baaqmd.gov)

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

Re: Kirby Canyon Recycling & Disposal Facility, San Jose, CA, Facility Number A1812 Section I.F Title V, 30-Day written report to BAAQMD Notice of Violation A-57374, Dated March 12, 2021

#### Dear Sir or Madam:

Waste Management of California, Inc. d/b/a Kirby Canyon Recycling & Disposal Facility ("KCRDF") is submitting this 30-day written report to the Bay Area Air Quality Management District (BAAQMD) as required under Title V Permit Condition Section I.F for KCRDF to Notice of Violation ("NOV") Number A-57374 dated March 12, 2021, (see attachment) for alleged temporary flare shutdown events caused by unplanned utility power outages on January 2 and 9, February 9 and 11, March 17, April 3, May 8, 9, and 27, June 9 and 30, July 12, August 24, September 27, and December 29, 2020 ("NOV Dates"). A signed copy of the NOV is attached. KCRDF Flare data for these dates is attached. The NOV alleges violation of:

- 1. Regulation 2, Section 1-307 "...shall not operate any...equipment...for which an authority to construct or permit to operate has been issued, in violation of any permit condition imposed pursuant to Section 2-1-403 [Permit Conditions]." ("2-1-307")
- 2. Regulation 1, Section 523.3 "...violation of permit conditions or District regulations to which the source is required to conform...shall be reported to the APCO within 96 hours after such occurrence..." ("1-523.3")
- 3. Regulation 8 Section 34-301.1 "...gas collection and emission control systems are operated continuously..." ("8-34-301.1")

Alleged violations of 2-1-307 and 1-523.3 are predicated on an alleged violation of 8-34-301.1. However, KCRDF was not in violation of 8-34-301.1. The alleged NOV Dates had unforeseeable and unpreventable power outages at KCRDF.

Regulation 8, Rule 34, Section 113 ("8-34-113") Limited Exemption, Inspection and Maintenance, states that "requirements of Sections 8-34-301...shall not apply to solid waste sites during inspection and maintenance of the landfill gas collection or emission control system..." KCRDF appropriately reported flare downtime events under 8-34-113, as each event required

inspection and maintenance during the downtime. These events were reported in KCRDF's startup and shutdown logs in its semi-annual reports. Startup could begin only after the restoration of power by the utility company and KCRDF's safety and environmental inspection and maintenance process for flare startup and emission minimization. Further, the exemption in 8-34-113 applies as KCRDF met the requirement that the "gas collection and emission control systems are not shutdown for more than 240 hours in any calendar year." As KCRDF did not violate 8-34-301.1, it also did not violate 2-1-307 nor 1-523.3.

BAAQMD's apparent interpretation that 8-34-113 does not apply where inspection and maintenance has occurred simply because an unplanned power shutoff event also occurred leads to a result that may create harm to health, safety and/or the environment. Automatically restarting flares and auxiliary equipment (blower skid, air compressor, condensate injection system, PLC and data logger, etc.) without a safety and environmental inspection and/or maintenance may cause serious health, safety and/or environmental concerns. Similarly, using an automatic backup generator would have the same concerns, with the addition of potential additional emissions associated with the generator. Further, switching between a generator and the power system creates additional downtime, as does refueling or other issues that may be associated with use of a generator.

KCRDF additionally asserts that the downtime events did not: 1) interfere with attainment of the BAAQMD, federal, or state standards; 2) endanger health, safety, or welfare of any person; 3) endanger the environment; 4) increase emissions of toxic air contaminants; 5) cause or contribute to a violation of a SAAQS or NAAQS; 6) interfere with the BAAQMD's compliance work; nor 7) result in emissions exceeding de minimis levels. Moreover, KCRDF's downtime events were not the result of equipment malfunction, knowing, willful, intentional, chronic nor committed by a recalcitrant, and did not benefit KCRDF economically nor result in a nuisance. The frequency and duration of weather or utility-related electrical interruptions are outside of KCRDF's control but in either case, best practice requires inspection and/or maintenance prior to startup and, therefore, is reported as such.

For the above reasons, KCRDF asserts that it did not violate 2-1-307, 1-523.3 nor 8-34-301.1 and respectfully requests the NOV be rescinded.

Despite its objections, at BAAQMD's request, KCRDF has also focused its efforts toward a solution to reduce power outage downtime hours by reconfiguring the existing electrical panel for transfer switch operation and adding a backup generator to serve as an emergency power source. KCRDF has taken the following proactive steps:

- KCRDF installed a manual transfer switch to reduce the time for switching between utility power and generator.
- KCRDF procured a new emergency generator and automatic transfer switch (ATS).
- KCRDF hired a certified electrical contractor to reconfigure the existing panels to the new generator unit.
- KCRDF is currently in the process of obtaining electrical permit for the ATS from the City of San Jose, CA.

No other corrective action was necessary and not applicable. The flare was temporarily shut down solely because of an unplanned power outage and not the result of an intentional or negligent failure to maintain and operate, or an equipment malfunction. As soon as the electricity was restored, the flare was inspected and restarted. The shutdown was temporary, only a few hours, and did not result in any emissions.

KCRDF disagrees with the BAAQMD that temporary shutdowns resulting from unplanned power outages are violations of any BAAQMD regulation. KCRDF is committed to operating its landfill in compliance with applicable. If you have any questions or need any additional information, please do not hesitate to contact me at (408) 779-2206.

Sincerely,

Kirby Canyon Recycling & Disposal Facility

Enrique Perez District Manager

cc: Erin Phillips, BAAQMD

Attachments: Copy of BAAQMD Notice of Violation A-57372



## BAY AREA BAY AREA BAY AREA AIR QUALITY MANAGEMENT DISTRICT AIR QUALITY MANAGEMENT 375 Beale Street, Suite 600, San Francisco, CA 94105 (415) 749-5000

NOTICE OF VIOLATIO	No. A57374
ISSUED TO: Kirby Canyon Recycling and Dispo	osal Facility PGGN# A1812
ADDRESS: 910 Coyote Creek Golf Drive	
CITY: San Jose	STATE: CA ZIP: 95111
PHONE: (408 ) <u>960-0769</u>	
✓ N# Mailing Address on F61	
OCCURRENCE	
NAME:	
ADDRESS:	Same As Above
CITY:	ZIP
SOURCE: S#1 NAME: Landfill with	Gas Collection System
EMISSION PT: P# NAME:	
DATE: 1/2/20 - 12/29/20 15 Days -	TIME: HRS
REG 2 RULE 1 SEC 301	REG 2 RULE 1 SEC 302
No Authority to Construct	No Permit to Operate
REG 1 SEC 301	REG 2 RULE 1_SEC 307
H & S CODE - 41700 Public Nuisance	Failure to Meet Permit Condition
REG 5 SEC 301	REG 6 RULE 1 SEC 301
Prohibited Open Burning	Excessive Visible Emissions
$ Arr$ REG $rac{8}{r}$ RULE $rac{34}{r}$ SECTION	
REG 1 RULE SECTION	ON <u>523.3</u> CODE
Details: Min. flare temp P.C. 1437, gas collection	n not operated continuously, RCA's not reported
RECIPIENT NAME: Enrique Perez	
TITLE: District Manager	/
SIGNING THIS NOTICE IS NOT AN ADMISSION OF GUILT X	seen [_
DESCRIPTION OF THE IMMEDIATION TAKEN TO PREVENT CONTINUED	TANTIAL PENALTY, YOUR RESPONSE
ISSUED BY; Erin Phillips	INSP #
DATE: 3/12/21	TIME: 1430 HRS ✓ MAILED

#### INSTRUCTIONS

#### PERMIT VIOLATIONS - (REG 2, RULE 1, SECTION 301 AND/OR 302)

Within 30 days, a permit application must be submitted to the District's Permit Division. The permit application must reference the Violation Notice Number Shown on the front of this notice. If either the Violation Notice Number is not referenced or no permit application is received, then this matter will be referred to the District's Legal Department for legal action. Your response does not preclude further legal action.

If there are any questions regarding the submission of a Permit Application, call the Permit Services Division at (415) 749-4990.

#### ALL OTHER VIOLATIONS

Within 10 days, return a copy of this notice with a written description of the corrective action you have taken to prevent continued or recurrent violation. Immediate corrective action must be taken to stop the violation. This violation is subject to substantial penalty. Your response does not preclude further legal action.

A variance should be sought if it is necessary to continue to operate in violation of District Regulations. For information on eligiblity for, or filing of, a variance, call (415) 749-5073.



#### Kirby Canyon Recycling & Disposal Facility 910 Coyote Creek Golf Drive, San Jose, CA 95037

May 21, 2021

Mr. Raymond Salalila Air Quality Specialist Compliance and Enforcement Division Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, California 94105

Re: Kirby Canyon Recycling & Disposal Facility

Facility Number A1812

Request for Limited Exemption (for construction activities) from Regulation 8, Rule 34 (Solid Waste Disposal Sites), Section 303 (Landfill Surface Requirements)-Updated

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 landfill construction activities to be conducted from June 1, 2021 through September 30, 2021, at the Kirby Canyon Recycling & Disposal Facility (KCRDF) Landfill in San Jose, California. This notification is submitted pursuant to Regulation 8, Rule 34, Section 118, "Limited Exemptions for Construction Activities." The work consists of installation new landfill gas (LFG) extraction wells and piping to maintain compliance with Regulation 8, Rule 34, and is to be performed during the period of June 1, 2021 through September 30, 2021.

The construction work will include excavation during installation of new LFG extraction wells; installation of new piping and laterals and repair of existing piping that will connect to existing LFG extraction wells and to the gas collection and control system (GCCS). The affected areas will then be backfilled. The work for this project includes installation, excavation and backfilling. 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; and
- Description of air quality mitigation measures planned.

No significant interruption of the current site LFG extraction and control operations is anticipated due to the work. The construction crew will mobilize to the site on or around June 1, 2021. We anticipate construction activities to conclude by September 30, 2021.

Unless notified otherwise, KCRDF 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 pursuant to Regulation 8, Rule 34, Section 118. Please do not hesitate to contact me at (408) 960-0770 with any questions.

Sincerely,

Kirby Canyon Recycling & Disposal Facility

Michael L. Winter

District Engineer

CC: Loi Chau, BAAQMD

Michael L. Winter

Enrique Perez, KCRDF

Bill Louis, WM

#### **BAAQMD RULE 8-34-118 CONSTRUCTION PLAN**

#### Kirby Canyon Recycling & Disposal Facility

#### LFG EXTRACTION WELLS AND PIPING CONSTRUCTION WORK

**June 1, 2021 through September 30, 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.

Section 303 requires maintaining the concentration of organic compounds and methane below 500 parts per million by volume (ppmv) 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."

- 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 installation of up to twelve LFG wells and new piping, excavation, and repair of existing piping 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

KCRDF will conduct landfill GCCS construction activities in compliance with the Rule 8-34-116 and 8-34-117, if applicable.

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

- Installation of up to twelve new LFG wells and associated piping
- Installation and tie-ins of piping at new wells
- Installation, repair, and tie-ins of piping at Well 128 and LR08
- Any other additional piping that may be required at existing wells and pipes; and
- Cut and cap below grade few surface penetrations that are not active

Pursuant to Rule 8-34-117, KCRDF will take the GCCS wells offline, as necessary. KCRDF 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:

- Install new collection wells.
- Install new piping and laterals.
- Increase LFG collection efficiency to further reduce the potential for surface emissions.

#### CONSTRUCTION SCHEDULE

The anticipated construction period will be between June 1, 2021 through September 30, 2021, and is summarized in the table below:

**Table 1 - Preliminary Construction Schedule** 

Task	Project Duration
Mobilize crew, equipment, and materials to site	Week 1
Installation of wells, repair and installation of piping, excavation and backfilling	Up to 16 weeks
Clean-up and demobilize crew and materials	Week 1

#### 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 of laterals and piping is independent of ongoing operations of the existing GCCS. Air quality mitigation will be provided during the installation and connection of piping 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:

- Drilling for installation of LFG wells
- Installation of new LFG pipes and repairs of existing pipes
- Excavation and backfill of pipe trenches and
- Connection of new wells and laterals to existing piping and GCCS

During 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 open borings or 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
- Excavations will not be left open overnight or for periods greater than 8 hours

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

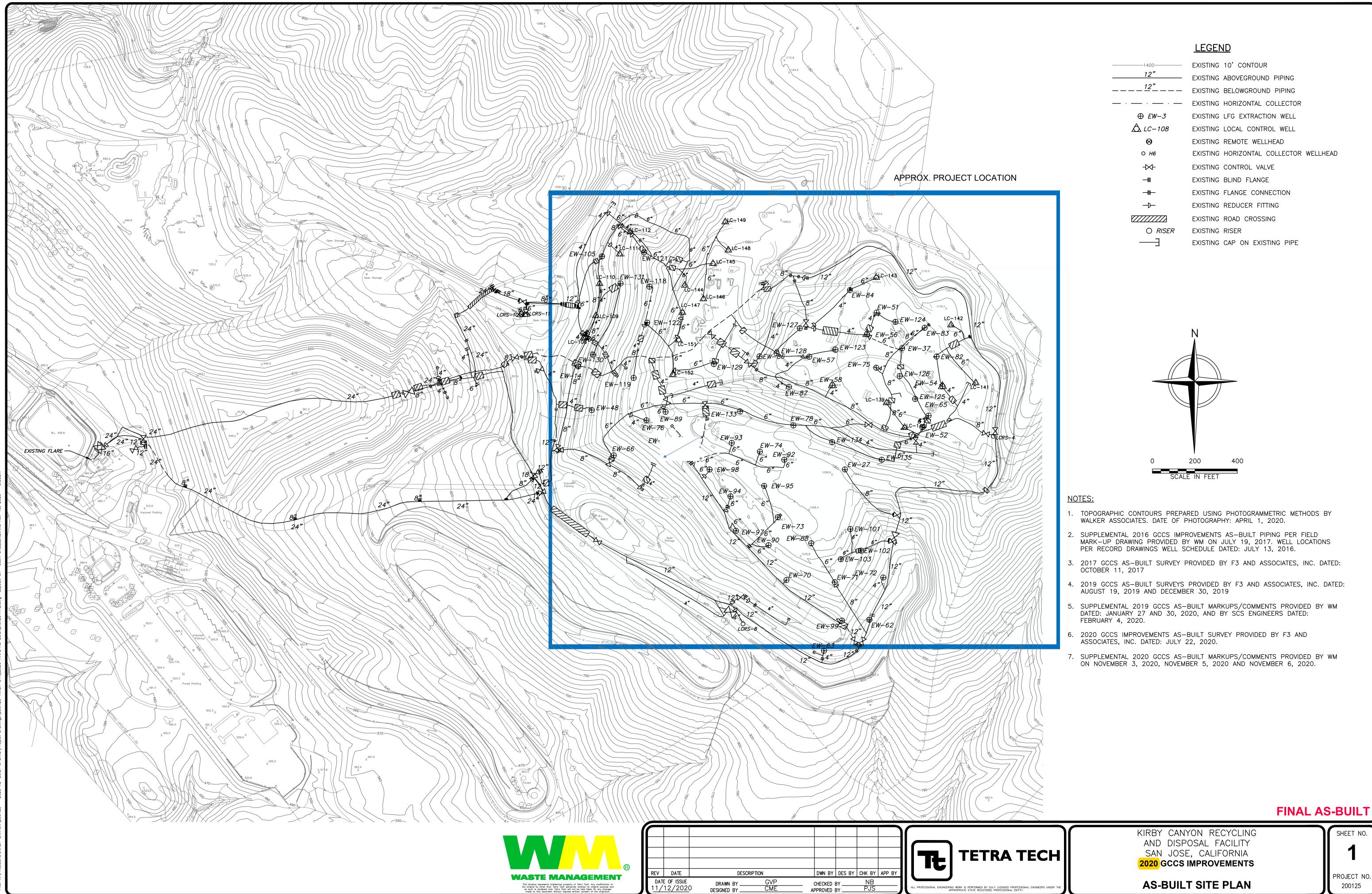
- Capping or blind flanging of all pipes and collector openings, which will remain sealed until time of connection to a vacuum source;
- Using isolation valves;
- Minimizing installation time for making each connection; and
- Minimizing the amount of open pipe during each installation, by using flange 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 KCRDF'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 – Gas Collection and Control System layout





#### KIRBY CANYON RECYCLING & DISPOSAL FACILITY A WASTE MANAGEMENT COMPANY

910 Coyote Creek Golf Drive P.O. Box 1870 Morgan Hill, CA 95037 (408) 779-2206 (408) 779-5165 Fax

July 9, 2021

Ms. Loi Chau Air Quality Engineer Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105

Subject: Decommissioning Notification for Four Vertical Wells Facility Number A1812 Kirby Canyon Recycling & Disposal Facility, San Jose, California

Dear Ms. Chau,

This letter is to notify the Bay Area Air Quality Management District (BAAQMD) of the decommissioning of four vertical landfill gas (LFG) wells 83, 144, 146, and 148, at the Kirby Canyon Recycling & Disposal Facility (KCRDF), pursuant to Title V Permit Condition Number 1437 Part 6, as modified by Application Number 27673. Well 144 was decommissioned on June 22, 2021, and wells 83, 146 and 148 were decommissioned on June 30, 2021.

As stated in the most recent well Decommissioning notification letter submitted on March 12, 2021, there were 73 vertical LFG collection wells, 0 horizontal collectors and 3 LCRS connected to the GCCS at the KCRDF. After the completion of these well actions, the KCRDF current GCCS component count and remaining permitted actions per Application Number 27673 are listed in the following table:

Well Action Per Application #27673	Vertical Decommissioning Actions	Vertical Installation Actions	Vertical Replacement Actions	Decomr	izontal missioning tions	Insta	zontal allation tions
	VW	VW	VW	НС	LCRS	НС	LCRS
Permitted Actions	40	50	103	5	8	2	15
Actions Performed	29	37	0	3	0	0	0
Remaining Actions	11	13	103	2	8	2	15
Current Active Well		69 vertical L	.FG wells, 0 HC	C and 3 L	.CRS		

HC= Horizontal Trench Collectors; LCRS= Leachate Cleanout Riser; VW= Vertical Wells

If you have any questions or need any additional information, please do not hesitate to contact me at rphadnis@wm.com.

Sincerely,

Kirby Canyon Recycling & Disposal Facility

Rajan Phadnis EP Specialist

cc: Bill Louis, KCRDF Mike Winter, KCRDF

# APPENDIX K WELLFIELD DEVIATION LOG

#### KIRBY CANYON RECYCLING & DISPOSAL FACILITY WELLFIELD DEVIATION REPORT

Reporting Period: From January 1 2021 through June 30, 2021

REPORT PREPARED BY: Rajan Phadnis UPDATED DATE: July 1, 2021 LFG MONITORING DEVICE: GEM

MODEL: 2000 DATE LAST CALIBRATED: DAILY

Well ID	Date and Time	СН₄	CO <sub>2</sub>	O <sub>2</sub>	Balance	Initial Temperature (degrees F)	Adjusted Temperature (degrees F)	Initial Pressure (in. w.c.)	Adjusted Pressure (in. w.c.)	Comments	Duration of Exceedance A of the End of Reporting Period
		(%)	(%)	(%)	(%)	(°F)	(°F)	("WC)	("WC)		(Days)
KCYN0065	1/12/21 3:30 PM	56.8	43.1	0.0	0.1	95.2	102.6	0.02	-0.5	NSPS/EG CAI;Inc. Flow/Vac.	<1
omments:Well 65 had	pressure exceedance dur	ing the mon	itoring eve	nt in Januar	y 2021. Adjust	tments were made ar	nd exceedance was c	orrected on the sa	ame day.		
KCYN0133	1/12/21 11:47 AM	57.4	42.6	0.0	0.0	112.1	126.9	0.95	-6.6	NSPS/EG CAI;Inc. Flow/Vac.	<1
mments:Well 133 ha	d pressure exceedance du	ring the mor	nitoring eve	ent in Janua	ry 2021. Adjus	tments were made a	nd exceedance was	corrected on the s	ame day.		•
KCYN0133	2/12/2021 11:11	56.5	43.5	0.0	0.0	97.6	109.0	0.3	-5.3	Inc. Flow/Vac.	<1
mments:Well 133 ha	d pressure exceedance du	ring the mo	nitoring ev	ent in Febru	ıary 2021. Adjı	ustments were made	and exceedance was	corrected on the	same day.		
KCYN0057	1/13/21 2:38 PM	0.0	0.4	20.7	78.9	73.1	72.8	-0.7	-0.6	NSPS/EG CAI;Fully Open;Inc. Flow/Vac.;Pinched	
KCYN0057	1/13/21 2:43 PM	0.0	0.4	20.7	78.9	71.5	71.5	-0.7	-0.7	NSPS/EG CAI;Fully Open;Inc. Flow/Vac.	
KCYN0057	1/21/21 10:50 AM	0.0	0.1	20.3	79.6	67.7	67.7	-1.2	-1.2	NSPS/EG CAI;No Adj. Made	
KCYN0057	1/21/21 10:53 AM	0.0	0.1	20.5	79.4	67.7	66.8	-1.2	-1.1	NSPS/EG CAI;Barely Open	
KCYN0057	2/12/2021 12:53	0.0	0.3	21.3	78.4	58.4	58.5	0.0	0.0	NSPS/EG CAI;Pinched	
KCYN0057	2/20/2021 15:13	1.5	2.3	21.3	74.9	61.0	60.8	-0.8	-0.7	NSPS/EG CAI	
KCYN0057	3/3/2021 12:24	55.4	44.3	0.2	0.1	139.0	139.0	-23.5	-23.5	NSPS/EG CAI;Fully Open	49
KCYN0057	3/3/2021 12:26						er Corrective Action C JRE)-Installed new ju		_O2);NSPS/EG		
omments:Well 57 had	oxygen and pressure exce	edance dur	ring the rep	orting period	d. New lateral	was installed and ex	ceedances was clear	ed.			
KCYN0057	2/12/2021 12:53	0.0	0.3	21.3	78.4	58.4	58.5	0.0	0.0	NSPS/EG CAI;Pinched	
KCYN0057	2/20/2021 15:13	1.5	2.3	21.3	74.9	61.0	60.8	-0.8	-0.7	NSPS/EG CAI	2
mments:Well 57 had	oxygen and pressure exce	edance dur	ring Februa	ry 2021 moi	nitoring.						
KCYN0123	12/8/2020 14:37	56.3	42.6	0.0	1.1	85.4	85.4	0.9	0.9	NSPS/EG CAI;Fully Open	
KCYN0123	12/8/2020 14:39	56.6	43.4	0.0	0.0	85.6	85.6	0.9	0.9	NSPS/EG CAI;Fully Open	
KCYN0123	1/13/21 8:25 AM	57.1	42.9	0.0	0.0	68.6	69.1	0.13	0.12	NSPS/EG CAI;Fully Open;Inc. Flow/Vac.	
KCYN0123	2/12/2021 12:47	55.4	44.6	0.0	0.0	73.2	73.3	0.3	0.4	NSPS/EG CAI;Fully Open	
KCYN0123	3/3/2021 12:40	54.3	45.5	0.1	0.1	129.0	129.0	-13.0	-13.0	NSPS/EG CAI;Fully Open	85
KCYN0123	3/3/2021 12:42				mpleted (CAC Installed new j		er Corrective Action (	Completed	•		
mments:Well 123 ha	d pressure exceedance du	ring the mor	nitoring eve	ent in March	2021. New la	ateral was installed ar	nd exceedance was o	leared.	<del></del>		
KCYN0126	1/12/21 4:38 PM	57.2	42.8	0.0	0.0	64.0	63.8	0.2	0.2	NSPS/EG CAI;Dec. Flow/Vac.;Pinched	
NC TNU 120	2/20/2021 15:05	57.1	42.9	0.0	0.0	63.5	63.4	0.5	0.6	NSPS/EG CAI;Fully Open	
KCYN0126	2/20/2021 13.03				+		1	44.5	44.5		
	3/3/2021 11:50	54.5	45.3	0.1	0.1	126.0	126.0	-14.5	-14.5	NSPS/EG CAI;Fully Open	90

EG CAI= Emissions Guidelines Corrective Action Initiated

KCRDF Plant No. 1812 KCRDF January 1-June 30- 2021 SAR

# APPENDIX L MONTHLY LANDFILL GAS FLOW RATES

## MONTHLY LFG Input to Flare (A-12) 2021 KIRBY CANYON RECYCLING & DISPOSAL FACILITY, San Jose, CA

Month	Total Available Runtime (hours)	Total Downtime (hours)	Total Runtime (hours)	Average Flow (scfm)	CH <sub>4</sub> (%)*	Total LFG Volume (scf)	Total CH <sub>4</sub> Volume (scf)	Total Heat Input (MMBTU)
January-21	744.00	12.30	731.70	2,037	46.6	89,110,744	41,552,340	42,093
February-21	672.00	13.60	658.40	1,995	46.6	78,713,770	36,704,231	37,181
March 2021 <sup>1</sup>	743.00	3.83	739.17	2,137	46.6	94,739,710	44,177,127	44,751
April-21	720.00	3.70	716.30	2,055	46.7	88,329,113	41,227,980	41,764
May-21	744.00	0.00	744.00	2,104	46.7	93,936,627	43,884,374	44,455
June-21	720.00	13.67	706.33	2,176	46.7	92,118,497	43,034,998	43,594
January 1-June 30, 2021 Totals/Avg	4,343.00	47.10	4,295.90	2,084	46.7	536,948,461	250,581,050	253,839

#### NOTES:

The annual heat input rate for the A-12 Flare shall not exceed 1,087,700 MMBTU and 2,980 MMBTU per day (Title V Permit A1812 Condition 1437 Part 8).

scfm= standard cubic feet per minute

scf= standard cubic feet

MMBTU= million British thermal units

LFG= landfill gas

CH<sub>4</sub>= methane

KCRDF Plant No. 1812

<sup>\*</sup>Methane content determined from February 25, 2021 and March 4, 2020 source test data.

<sup>&</sup>lt;sup>1</sup>There were 743 hours in March 2021, due to Daylight Saving Time.

<b>MONTHLY LFG Input to F</b>	MONTHLY LFG Input to Flare (A-12)									
KIRBY CANYON RECYCLING & DISPOSAL FACILITY, San Jose, CA										
MONTHLY LFG Heat Input	t: 2020									
Month	Monthly Total Heat	12-Month Total Heat								
MOTH	Input (MMBTU)	Input (MMBTU)								
July-20	44,128	556,033								
August-20	42,973	552,576								
September-20	41,231	548,973								
October-20	42,095	548,528								
November-20	40,446	546,190								
December-20	44,899	542,697								
January-21	42,093	532,671								
February-21	37,181	521,217								
March-21	44,751	513,977								
April-21	41,764	506,591								
May-21	44,455	507,852								
June-21	43,594	509,610								
MMBTU= million British the	ermal units									

Heat Input Rate A-12 Flare

MONTH: January-21

Date	Runtime (hours)	CH <sub>4</sub> (%)*	Average Flow	Total LFG	Total CH₄	Heating Value of CH₄	Heat Input
Date	Trailline (nouis)	0114 (70)	(scfm)	Volume (scf)	Volume (scf)	(BTU/scf)	(MMBTU)/Day
1/1/2021	24.00	46.6	2,160	3,110,688	1,450,514	1,013.0	1,469
1/2/2021	24.00	46.6	2,154	3,101,923	1,446,427	1,013.0	1,465
1/3/2021	24.00	46.6	2,165	3,117,443	1,453,664	1,013.0	1,473
1/4/2021	24.00	46.6	2,154	3,101,777	1,446,359	1,013.0	1,465
1/5/2021	12.57	46.6	2,518	1,898,615	885,324	1,013.0	897
1/6/2021	24.00	46.6	2,350	3,384,549	1,578,215	1,013.0	1,599
1/7/2021	24.00	46.6	2,136	3,076,196	1,434,430	1,013.0	1,453
1/8/2021	24.00	46.6	2,067	2,977,011	1,388,180	1,013.0	1,406
1/9/2021	24.00	46.6	2,063	2,970,277	1,385,040	1,013.0	1,403
1/10/2021	24.00	46.6	2,058	2,964,116	1,382,167	1,013.0	1,400
1/11/2021	24.00	46.6	2,059	2,964,247	1,382,228	1,013.0	1,400
1/12/2021	24.00	46.6	2,046	2,946,289	1,373,855	1,013.0	1,392
1/13/2021	24.00	46.6	2,038	2,934,784	1,368,490	1,013.0	1,386
1/14/2021	24.00	46.6	2,036	2,931,127	1,366,785	1,013.0	1,385
1/15/2021	24.00	46.6	2,024	2,915,095	1,359,309	1,013.0	1,377
1/16/2021	24.00	46.6	2,041	2,939,375	1,370,631	1,013.0	1,388
1/17/2021	24.00	46.6	2,032	2,926,749	1,364,743	1,013.0	1,382
1/18/2021	24.00	46.6	2,025	2,915,951	1,359,708	1,013.0	1,377
1/19/2021	24.00	46.6	1,923	2,768,457	1,290,931	1,013.0	1,308
1/20/2021	23.13	46.6	1,901	2,638,146	1,230,167	1,013.0	1,246
1/21/2021	24.00	46.6	1,901	2,737,702	1,276,590	1,013.0	1,293
1/22/2021	24.00	46.6	1,869	2,691,643	1,255,113	1,013.0	1,271
1/23/2021	24.00	46.6	1,852	2,666,885	1,243,568	1,013.0	1,260
1/24/2021	24.00	46.6	1,844	2,655,165	1,238,103	1,013.0	1,254
1/25/2021	24.00	46.6	1,854	2,669,220	1,244,657	1,013.0	1,261
1/26/2021	24.00	46.6	1,871	2,694,854	1,256,610	1,013.0	1,273
1/27/2021	24.00	46.6	1,880	2,707,170	1,262,353	1,013.0	1,279
1/28/2021	24.00	46.6	1,997	2,875,242	1,340,725	1,013.0	1,358
1/29/2021	24.00	46.6	2,019	2,907,266	1,355,658	1,013.0	1,373
1/30/2021	24.00	46.6	2,043	2,941,668	1,371,700	1,013.0	1,390
1/31/2021	24.00	46.6	2,070	2,981,114	1,390,093	1,014.0	1,408
Totals/ Average:	731.70	46.6	2,037	89,110,744	41,552,340	1,013.0	42,093
	•		·			Maximum	1,599

#### NOTES:

The daily heat input rate for the A-12 Flare shall not exceed 3,576 MMBTU (Title V Permit A1812 Condition 1437 Part 8).

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<sub>4</sub>= methane

<sup>\*</sup>Starting May 2020, Methane content determined from the March 4, 2020, A-12 Source Test is used.

Heat Input Rate A-12 Flare

MONTH: February-21

						Maximum	1,412
Totals/ Average:	658.40	46.6	1,995	78,713,770	36,704,231	1,013.0	37,181
2/28/2021	24.00	46.6	1,981	2,853,324	1,330,505	1,013.0	1,348
2/27/2021	24.00	46.6	1,971	2,838,523	1,323,603	1,013.0	1,341
2/26/2021	24.00	46.6	1,988	2,862,008	1,334,554	1,013.0	1,352
2/25/2021	24.00	46.6	1,999	2,878,869	1,342,417	1,013.0	1,360
2/24/2021	23.83	46.6	2,007	2,869,575	1,338,083	1,013.0	1,355
2/23/2021	24.00	46.6	2,004	2,885,638	1,345,573	1,013.0	1,363
2/22/2021	24.00	46.6	2,007	2,889,373	1,347,315	1,013.0	1,365
2/21/2021	24.00	46.6	1,995	2,872,855	1,339,612	1,013.0	1,357
2/20/2021	24.00	46.6	2,007	2,890,423	1,347,804	1,013.0	1,365
2/19/2021	24.00	46.6	2,051	2,953,112	1,377,036	1,013.0	1,395
2/18/2021	24.00	46.6	2,076	2,989,251	1,393,888	1,013.0	1,412
2/17/2021	11.63	46.6	2,099	1,464,990	683,125	1,013.0	692
2/16/2021	24.00	46.6	2,029	2,922,200	1,362,622	1,013.0	1,380
2/15/2021	24.00	46.6	2,039	2,935,544	1,368,844	1,013.0	1,387
2/14/2021	24.00	46.6	2,033	2,926,984	1,364,853	1,013.0	1,383
2/13/2021	24.00	46.6	2,042	2,940,103	1,370,970	1,013.0	1,389
2/12/2021	24.00	46.6	2,032	2,925,986	1,364,387	1,013.0	1,382
2/11/2021	23.67	46.6	2,020	2,868,595	1,337,626	1,013.0	1,355
2/10/2021	24.00	46.6	2,011	2,896,166	1,350,482	1,013.0	1,368
2/9/2021	23.27	46.6	1,974	2,755,972	1,285,110	1,013.0	1,302
2/8/2021	24.00	46.6	1,920	2,764,567	1,289,118	1,013.0	1,306
2/7/2021	24.00	46.6	1,929	2,778,408	1,295,572	1,013.0	1,312
2/6/2021	24.00	46.6	1,930	2,779,777	1,296,210	1,013.0	1,313
2/5/2021	24.00	46.6	1,929	2,777,448	1,295,124	1,013.0	1,312
2/4/2021	24.00	46.6	1,919	2,763,157	1,288,460	1,013.0	1,305
2/3/2021	24.00	46.6	1,912	2,753,843	1,284,117	1,013.0	1,301
2/2/2021	24.00	46.6	1,913	2,754,203	1,284,285	1,013.0	1,301
2/1/2021	24.00	46.6	(scfm) 2,030	Volume (scf) 2,922,876	Volume (scf) 1,362,937	(BTU/scf)	(MMBTU)/Da
Date	Runtime (hours)	CH <sub>4</sub> (%)*	Average Flow	Total LFG	Total CH₄	Heating Value of CH₄	Heat Input

#### NOTES:

The daily heat input rate for the A-12 Flare shall not exceed 3,576 MMBTU (Title V Permit A1812 Condition 1437 Part 8). scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

<sup>\*</sup>Starting May 2020, Methane content determined from the March 4, 2020, A-12 Source Test is used.

Heat Input Rate A-12 Flare

MONTH: March-21

Date	Runtime (hours)	CH <sub>4</sub> (%)*	Average Flow (scfm)	Total LFG Volume (scf)	Total CH₄ Volume (scf)	Heating Value of CH <sub>4</sub> (BTU/scf)	Heat Input (MMBTU)/Day
3/1/2021	24.00	46.6	2,020	2,909,072	1,356,500	1,013.0	1,374
3/2/2021	24.00	46.6	2,126	3,061,534	1,427,593	1,013.0	1,446
3/3/2021	24.00	46.6	2,196	3,161,595	1,474,252	1,013.0	1,493
3/4/2021	24.00	46.6	2,157	3,106,512	1,448,567	1,013.0	1,467
3/5/2021	20.17	46.6	2,211	2,675,341	1,247,512	1,013.0	1,264
3/6/2021	24.00	46.6	2,215	3,190,089	1,487,539	1,013.0	1,507
3/7/2021	24.00	46.6	2,219	3,194,978	1,489,818	1,013.0	1,509
3/8/2021	24.00	46.6	2,205	3,175,686	1,480,822	1,013.0	1,500
3/9/2021	24.00	46.6	2,171	3,126,514	1,457,893	1,013.0	1,477
3/10/2021	24.00	46.6	2,148	3,093,642	1,442,565	1,013.0	1,461
3/11/2021	24.00	46.6	2,142	3,084,837	1,438,459	1,013.0	1,457
3/12/2021	24.00	46.6	2,151	3,097,337	1,444,288	1,013.0	1,463
3/13/2021	24.00	46.6	2,148	3,092,976	1,442,255	1,013.0	1,461
3/14/2021	23.00	46.6	2,159	2,979,117	1,389,162	1,013.0	1,407
3/15/2021	24.00	46.6	2,131	3,069,108	1,431,125	1,013.0	1,450
3/16/2021	24.00	46.6	2,126	3,062,118	1,427,866	1,013.0	1,446
3/17/2021	24.00	46.6	2,115	3,045,752	1,420,234	1,013.0	1,439
3/18/2021	24.00	46.6	2,107	3,034,556	1,415,013	1,013.0	1,433
3/19/2021	24.00	46.6	2,109	3,037,261	1,416,275	1,013.0	1,435
3/20/2021	24.00	46.6	2,102	3,026,233	1,411,132	1,013.0	1,429
3/21/2021	24.00	46.6	2,107	3,034,092	1,414,797	1,013.0	1,433
3/22/2021	24.00	46.6	2,111	3,039,368	1,417,257	1,013.0	1,436
3/23/2021	24.00	46.6	2,107	3,034,273	1,414,881	1,013.0	1,433
3/24/2021	24.00	46.6	2,116	3,046,877	1,420,759	1,013.0	1,439
3/25/2021	24.00	46.6	2,106	3,032,959	1,414,269	1,013.0	1,433
3/26/2021	24.00	46.6	2,098	3,020,717	1,408,560	1,013.0	1,427
3/27/2021	24.00	46.6	2,120	3,053,120	1,423,670	1,013.0	1,442
3/28/2021	24.00	46.6	2,136	3,076,080	1,434,376	1,013.0	1,453
3/29/2021	24.00	46.6	2,122	3,055,945	1,424,987	1,013.0	1,444
3/30/2021	24.00	46.6	2,117	3,047,826	1,421,201	1,013.0	1,440
3/31/2021	24.00	46.6	2,135	3,074,195	1,433,497	1,013.0	1,452
Totals/ Average:	739.17	46.6	2,137	94,739,710	44,177,127	1,013.0	44,751
						Maximum	1,509

#### NOTES:

The daily heat input rate for the A-12 Flare shall not exceed 3,576 MMBTU (Title V Permit A1812 Condition 1437 Part 8).

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

<sup>\*</sup>Starting May 2020, Methane content determined from the March 4, 2020, A-12 Source Test is used.

Heat Input Rate A-12 Flare

MONTH: April-21

Date	Runtime (hours)	CH <sub>4</sub> (%)*	Average Flow (scfm)	Total LFG Volume (scf)	Total CH₄ Volume (scf)	Heating Value of CH <sub>4</sub> (BTU/scf)	Heat Input (MMBTU)/Day
4/1/2021	24.00	46.6	2,145	3,088,679	1,440,251	1,013.0	1,459
4/2/2021	24.00	46.6	2,123	3,057,067	1,425,510	1,013.0	1,444
4/3/2021	24.00	46.6	2,107	3,034,516	1,414,995	1,013.0	1,433
4/4/2021	24.00	46.6	2,108	3,035,642	1,415,520	1,013.0	1,434
4/5/2021	24.00	46.6	2,109	3,036,747	1,416,035	1,013.0	1,434
4/6/2021	24.00	46.6	2,110	3,038,145	1,416,687	1,013.0	1,435
4/7/2021	24.00	46.6	2,103	3,028,608	1,412,240	1,013.0	1,431
4/8/2021	24.00	46.6	2,107	3,034,128	1,414,814	1,013.0	1,433
4/9/2021	24.00	46.6	2,105	3,030,635	1,413,185	1,013.0	1,432
4/10/2021	24.00	46.6	2,110	3,039,067	1,417,117	1,013.0	1,436
4/11/2021	24.00	46.6	2,113	3,042,071	1,418,518	1,013.0	1,437
4/12/2021	24.00	46.6	2,074	2,986,030	1,392,386	1,013.0	1,410
4/13/2021	24.00	46.6	2,010	2,894,259	1,349,593	1,013.0	1,367
4/14/2021	24.00	46.6	1,996	2,874,497	1,340,378	1,013.0	1,358
4/15/2021	24.00	46.7	2,006	2,888,332	1,349,342	1,013.0	1,367
4/16/2021	24.00	46.7	2,012	2,897,022	1,353,402	1,013.0	1,371
4/17/2021	24.00	46.7	2,015	2,902,283	1,355,860	1,013.0	1,373
4/18/2021	24.00	46.7	2,034	2,929,324	1,368,492	1,013.0	1,386
4/19/2021	24.00	46.7	2,028	2,920,182	1,364,221	1,013.0	1,382
4/20/2021	24.00	46.7	2,016	2,903,020	1,356,204	1,013.0	1,374
4/21/2021	24.00	46.7	2,006	2,888,783	1,349,553	1,013.0	1,367
4/22/2021	24.00	46.7	2,002	2,883,124	1,346,909	1,013.0	1,364
4/23/2021	24.00	46.7	2,006	2,888,952	1,349,632	1,013.0	1,367
4/24/2021	24.00	46.7	2,016	2,903,069	1,356,227	1,013.0	1,374
4/25/2021	24.00	46.7	2,000	2,880,556	1,345,709	1,013.0	1,363
4/26/2021	24.00	46.7	1,996	2,873,571	1,342,446	1,013.0	1,360
4/27/2021	22.23	46.7	2,035	2,714,403	1,268,088	1,013.0	1,285
4/28/2021	24.00	46.7	2,041	2,939,096	1,373,057	1,013.0	1,391
4/29/2021	24.00	46.7	2,046	2,946,936	1,376,720	1,013.0	1,395
4/30/2021	22.07	46.7	2,077	2,750,369	1,284,890	1,013.0	1,302
Totals/ Average:	716.30	46.7	2,055	88,329,113	41,227,980	1,013.0	41,764
						Maximum	1,459

#### NOTES:

\*Starting May 15, 2021, Methane content determined from the February 2021, A-12 Source Test is used.

The daily heat input rate for the A-12 Flare shall not exceed 3,576 MMBTU (Title V Permit A1812 Condition 1437 Part 8).

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

Heat Input Rate A-12 Flare

MONTH: May-21

Totals/ Avelage.	7 77.00	40.7	2,104	33,330,027	70,007,014	Maximum	1,562
Totals/ Average:	744.00	46.7	2,104	93,936,627	43,884,374	1,013.0	44,455
5/31/2021	24.00	46.7	2,289	3,296,393	1,539,976	1,013.0	1,560
5/30/2021	24.00	46.7	2,274	3,274,902 3,287,120	1,529,936	1,013.0	1,556
5/29/2021	24.00	46.7	2,291		1,529,936	1,013.0	1,562
5/28/2021	24.00	46.7	2,221	3,299,721	1,541,531	1,013.0	1,514
5/27/2021	24.00	46.7	2,192	3,198,666	1,474,666	1,013.0	1,494
5/26/2021	24.00	46.7	2,192	3,156,593	1,451,447	1,013.0	1,470
5/25/2021	24.00	46.7	2,158	3,106,893	1,451,447	1,013.0	1,455
5/24/2021	24.00	46.7	2,125	3,060,192	1,429,630	1,013.0	1,448
5/23/2021	24.00	46.7	2,125	3,060,192	1,429,630	1,013.0	1,445
5/22/2021	24.00	46.7	2,121	3,054,234	1,426,846	1,013.0	1,439
5/21/2021	24.00	46.7	2,112	3,041,158	1,420,738	1,013.0	1,434
5/20/2021	24.00	46.7	2,104	3,030,416	1,415,719	1,013.0	1,434
5/19/2021	24.00	46.7	2,077	2,990,179	1,396,922	1,013.0	1,405
5/18/2021	24.00	46.7	2,061	2,968,250	1,386,677	1,013.0	1,405
5/17/2021	24.00	46.7	2,041	2,953,196	1,380,018	1,013.0	1,391
5/16/2021	24.00	46.7	2,041	2,939,198	1,373,105	1,013.0	1,393
5/15/2021	24.00	46.7	2,044	2,943,644	1,375,182	1,013.0	1,393
5/14/2021	24.00	46.7	2,048	2,949,022	1,377,695	1,013.0	1,396
5/13/2021	24.00	46.7	2,059	2,965,148	1,385,228	1,013.0	1,403
5/12/2021	24.00	46.7	2,063	2,970,196	1,387,586	1,013.0	1,406
5/11/2021	24.00	46.7	2,056	2,960,582	1,383,095	1,013.0	1,401
5/10/2021	24.00	46.7	2,041	2,939,514	1,373,253	1,013.0	1,391
5/9/2021	24.00	46.7	2,046	2,945,913	1,376,242	1,013.0	1,391
5/8/2021	24.00	46.7	2,041	2,938,589	1,372,821	1,013.0	1,391
5/7/2021	24.00	46.7	2,036	2,931,225	1,369,380	1,013.0	1,387
5/6/2021	24.00	46.7	2,039	2,924,759	1,366,360	1,013.0	1,384
5/5/2021	24.00	46.7	2,059	2,956,468 2,965,463	1,381,173 1,385,375	1,013.0 1,013.0	1,403
5/3/2021 5/4/2021	24.00	46.7 46.7	2,041	2,939,278	1,373,143	1,013.0	1,391 1,399
5/2/2021	24.00	46.7	2,034	2,928,789	1,368,242	1,013.0	1,386
5/1/2021	24.00	46.7	2,046 2,034	2,945,556	1,376,075	1,013.0	1,394
Date	Runtime (hours)	CH <sub>4</sub> (%)*	(scfm)	Volume (scf)	Volume (scf)	Value of CH <sub>4</sub> (BTU/scf)	(MMBTU)/Da
		(0/::	Average Flow	Total LFG	Total CH₄	Heating	Heat Input

#### NOTES:

\*Starting April 15, 2021, Methane content determined from the February 2021, A-12 Source Test is used.

The daily heat input rate for the A-12 Flare shall not exceed 3,576 MMBTU (Title V Permit A1812 Condition 1437 Part 8).

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<sub>4</sub>= methane

Heat Input Rate A-12 Flare

MONTH: June-21

			_,-,	, -,	-,,	Maximum	1,557
Totals/ Average:	706.33	46.7	2,176	92,118,497	43,034,998	1,013.0	43,594
6/30/2021	24.00	46.7	2,166	3,118,647	1,456,938	1,013.0	1,476
6/29/2021	24.00	46.7	2,174	3,130,235	1,462,352	1,013.0	1,481
6/28/2021	24.00	46.7	2,171	3,126,334	1,460,529	1,013.0	1,480
6/27/2021	24.00	46.7	2,176	3,133,629	1,463,937	1,013.0	1,483
6/26/2021	24.00	46.7	2,187	3,149,612	1,471,404	1,013.0	1,491
6/25/2021	24.00	46.7	2,161	3,111,798	1,453,739	1.013.0	1.473
6/24/2021	24.00	46.7	2,138	3,078,161	1,438,024	1,013.0	1,457
6/23/2021	24.00	46.7	2,144	3,087,120	1,442,210	1,013.0	1,461
6/22/2021	24.00	46.7	2,140	3,081,524	1,439,596	1,013.0	1,458
6/21/2021	24.00	46.7	2,128	3,064,311	1,431,554	1,013.0	1,450
6/20/2021	24.00	46.7	2,141	3,083,704	1,440,614	1.013.0	1,459
6/19/2021	24.00	46.7	2,155	3,103,179	1,449,712	1,013.0	1,469
6/18/2021	24.00	46.7	2,193	3,157,331	1,475,010	1,013.0	1,494
6/17/2021	24.00	46.7	2,216	3,190,415	1,490,466	1,013.0	1,510
6/16/2021	13.43	46.7	2,320	1,870,263	873,731	1,013.0	885
6/15/2021	23.63	46.7	2.115	2,999,755	1,401,396	1,013.0	1,420
6/14/2021	24.00	46.7	2,126	3,061,591	1,430,283	1,013.0	1,449
6/13/2021	24.00	46.7	2,134	3,073,568	1,435,879	1.013.0	1.455
6/12/2021	24.00	46.7	2,146	3,090,225	1,443,660	1,013.0	1,462
6/11/2021	24.00	46.7	2,135	3,074,685	1,436,401	1,013.0	1,455
6/10/2021	24.00	46.7	2,134	3,072,944	1,435,587	1,013.0	1,454
6/9/2021	21.93	46.7	2,178	2,865,724	1,338,780	1,013.0	1,356
6/8/2021	23.77	46.7	2,114	3,015,075	1,408,553	1.013.0	1.427
6/7/2021	24.00	46.7	2,116	3,047,284	1,423,600	1,013.0	1,442
6/6/2021	24.00	46.7	2,132	3,069,673	1,434,059	1,013.0	1,453
6/5/2021	24.00	46.7	2,226	3,206,137	1,497,811	1,013.0	1,517
6/4/2021	24.00	46.7	2,285	3,290,368	1,537,161	1,013.0	1,557
6/3/2021	23.57	46.7	2,275	3,217,049	1,502,909	1,013.0	1,540
6/2/2021	24.00	46.7	2.269	3,266,727	1,526,117	1,013.0	1,546
6/1/2021	24.00	46.7	2,279	3,281,429	1,532,985	1,013.0	1,553
Date	Runtime (hours)	CH <sub>4</sub> (%)*	(scfm)	Volume (scf)	Volume (scf)	Value of CH <sub>4</sub> (BTU/scf)	(MMBTU)/Da
		<b>011</b> (0/)+	Average Flow	Total LFG	Total CH₄	Heating	Heat Input

#### NOTES:

\*Starting April 15, 2021, Methane content determined from the February 2021, A-12 Source Test is used.

The daily heat input rate for the A-12 Flare shall not exceed 3,576 MMBTU (Title V Permit A1812 Condition 1437 Part 8).

scfm= standard cubic feet per minute

BTU/scf= British thermal unit per square cubic feet

scf= standard cubic feet

MMBTU= million British thermal units

## APPENDIX M MONTHLY CONDENSATE INJECTION LOGS

#### KIRBY CANYON RECYCLING & DISPOSAL FACILITY

#### **CONDENSATE INJECTION TOTALS: 2020-2021**

Title V Permit A1812, Condition Number 1437 Part 14

Month	Average Condensate Injection Rate (gpm)	Monthly Condensate Injection Throughput (gallons)	Condensate Injection Throughput 12-Month Total (gallons)
July-20	2.5	64,526	819,041
August-20	2.4	59,814	826,883
September-20	2.4	51,412	829,348
October-20	2.4	64,909	844,142
November-20	2.2	70,096	864,135
December-20	2.5	71,247	862,113
January-21	2.4	70,727	855,413
February-21	2.3	67,707	832,428
March-21	2.3	82,094	818,009
April-21	2.5	68,901	798,112
May-21	2.4	70,764	788,848
June-21	2.3	59,123	801,321

#### NOTES:

gpm= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 1437 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 1437 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

#### KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

January-21

Start Date	Start Time	End Date	End Time	Total Injection Time (min.)	Average GPM	Total Gallons
2021/01/01	01:38:00	2021/01/01	17:10:00	932	2.0	1860.0
2021/01/01	20:56:00	2021/01/01	23:58:00	184	2.1	381.1
2021/01/02	00:00:00	2021/01/02	12:10:00	730	2.0	1474.5
2021/01/02	16:00:00	2021/01/02	23:58:00	480	2.1	993.0
2021/01/03	00:00:00	2021/01/03	05:40:00	340	2.0	693.5
2021/01/03	09:16:00	2021/01/03	21:58:00	762	2.0	1551.6
2021/01/04	01:42:00	2021/01/04	17:30:00	948	2.0	1909.6
2021/01/04	21:16:00	2021/01/04	23:58:00	164	2.1	338.0
2021/01/05	00:00:00	2021/01/05	00:22:00	22	1.9	42.8
2021/01/05	12:02:00	2021/01/05	23:58:00	718	2.0	1417.2
2021/01/06	00:00:00	2021/01/06	04:34:00	274	1.9	527.4
2021/01/06	08:38:00	2021/01/06	16:38:00	480	2.0	957.2
2021/01/06	20:52:00	2021/01/06	23:58:00	188	2.1	387
2021/01/07	00:00:00	2021/01/07	13:34:00	814	2.0	1,628
2021/01/07	18:02:00	2021/01/07	23:58:00	358	2.0	732
2021/01/08	00:00:00	2021/01/08	15:12:00	912	2.0	1,821
2021/01/08	19:10:00	2021/01/08	23:58:00	290	2.1	595
2021/01/09	00:00:00	2021/01/09	16:36:00	996	2.0	1,991
2021/01/09	20:14:00	2021/01/09	23:58:00	226	2.0	461
2021/01/10	00:00:00	2021/01/10	17:34:00	1,054	2.0	2,072
2021/01/10	21:06:00	2021/01/10	23:58:00	174	2.0	356
2021/01/11	00:00:00	2021/01/11	17:48:00	1,068	2.0	2,116
2021/01/11	21:16:00	2021/01/11	23:58:00	164	2.0	336
2021/01/12	00:00:00	2021/01/12	16:10:00	970	2.0	1,933
2021/01/12	19:52:00	2021/01/12	23:58:00	248	2.0	502
2021/01/13	00:00:00	2021/01/13	15:56:00	956	2.0	1,891
2021/01/13	19:58:00	2021/01/13	23:58:00	242	2.0	487
2021/01/14	00:00:00	2021/01/14	15:12:00	912	2.0	1,798
2021/01/14	19:06:00	2021/01/14	23:58:00	294	2.0	586
2021/01/15	00:00:00	2021/01/15	10:38:00	638	1.9	1,244
2021/01/15	14:48:00	2021/01/15	23:58:00	552	2.0	1,076
2021/01/16	00:00:00	2021/01/16	02:18:00	138	1.9	263
2021/01/16	06:00:00	2021/01/16	18:50:00	770	1.9	1,497
2021/01/16	22:28:00	2021/01/16	23:58:00	92	2.0	186
2021/01/17	00:00:00	2021/01/17	15:30:00	930	2.0	1,827
2021/01/17	20:16:00	2021/01/17	23:58:00	224	2.0	452
2021/01/18	00:00:00	2021/01/18	10:40:00	640	1.9	1,241
2021/01/18	14:58:00	2021/01/18	23:58:00	542	2.0	1,106
2021/01/19	00:00:00	2021/01/19	00:26:00	26	1.9	50
2021/01/19	04:26:00	2021/01/19	16:40:00	734	2.0	1,459
2021/01/19	20:36:00	2021/01/19	23:58:00	204	2.0	413
2021/01/20	00:00:00	2021/01/20	12:00:00	720	2.0	1,414
2021/01/20	16:10:00	2021/01/20	23:58:00	470	2.0	940
2021/01/21	00:00:00	2021/01/21	10:06:00	606	1.9	1,167
2021/01/21	14:08:00	2021/01/21	23:58:00	592	2.0	1,168
2021/01/21	00:00:00	2021/01/21	10:52:00	652	1.9	1,106
2021/01/22	14:40:00	2021/01/22	23:58:00	560	2.0	1,094
2021/01/23	00:00:00	2021/01/23	11:06:00	666	1.9	1,094
2021/01/23	15:28:00	2021/01/23	23:58:00	512	2.0	1,272

#### KIRBY CANYON RECYCLING & DISPOSAL FACILITY

CONDENSATE INJECTION (A-12 Flare)

January-21

			Maxim	um GPM	2.1	
Totals				29,834	2.4	70,727
2021/01/31	12:30:00	2021/01/31	23:58:00	690	1.9	1,329
2021/01/31	00:00:00	2021/01/31	08:12:00	492	1.9	953
2021/01/30	17:24:00	2021/01/30	23:58:00	396	2.0	782
2021/01/30	00:00:00	2021/01/30	13:14:00	794	1.9	1,527
2021/01/29	23:34:00	2021/01/29	23:58:00	26	2.0	52
2021/01/29	06:22:00	2021/01/29	19:50:00	808	1.9	1,555
2021/01/29	00:00:00	2021/01/29	02:48:00	168	1.9	318
2021/01/28	08:02:00	2021/01/28	23:58:00	958	1.9	1,860
2021/01/28	00:00:00	2021/01/28	04:24:00	264	1.9	508
2021/01/27	00:00:00	2021/01/27	23:58:00	1,440	2.0	2,811
2021/01/26	22:18:00	2021/01/26	23:58:00	102	2.0	202
2021/01/26	00:00:00	2021/01/26	19:08:00	1,148	1.9	2,200
2021/01/25	14:56:00	2021/01/25	23:58:00	544	2.0	1,063
2021/01/25	00:00:00	2021/01/25	11:00:00	660	1.9	1,262
2021/01/24	15:08:00	2021/01/24	23:58:00	532	2.0	1,040
2021/01/24	00:00:00	2021/01/24	11:18:00	678	1.9	1,300

gpm= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

CONDENSATE INJECTION (A-12 Flare)

February-21

Start Date	Start Time	End Date	End Time	Total Injection Time (min.)	Average GPM	Total Gallons
2021/02/01	00:00:00	2021/02/01	03:14:00	194	1.9	368.2
2021/02/01	07:14:00	2021/02/01	18:24:00	670	1.9	1304.0
2021/02/01	22:02:00	2021/02/01	23:58:00	118	2.0	235.6
2021/02/02	00:00:00	2021/02/02	17:28:00	1048	2.0	2044.3
2021/02/02	21:10:00	2021/02/02	23:58:00	170	2.0	338.9
2021/02/02	00:00:00	2021/02/02	17:28:00	1048	2.0	2044.3
2021/02/02	21:10:00	2021/02/02	23:58:00	170	2.0	338.9
2021/02/03	00:00:00	2021/02/03	17:22:00	1042	2.0	2037.6
2021/02/03	20:50:00	2021/02/03	23:58:00	190	2.0	381.3
2021/02/04	00:00:00	2021/02/04	16:38:00	998	2.0	1958.3
2021/02/04	20:22:00	2021/02/04	23:58:00	218	2.0	437.9
2021/02/05	00:00:00	2021/02/05	18:06:00	1086	2.0	2130.2
2021/02/05	21:38:00	2021/02/05	23:58:00	142	2.0	290
2021/02/06	00:00:00	2021/02/06	17:00:00	1,020	2.0	2,020
2021/02/06	20:54:00	2021/02/06	23:58:00	186	2.0	379
2021/02/07	00:00:00	2021/02/07	17:24:00	1,044	2.0	2,070
2021/02/07	21:08:00	2021/02/07	23:58:00	172	2.0	352
2021/02/08	00:00:00	2021/02/08	17:42:00	1,062	2.0	2,114
2021/02/08	21:24:00	2021/02/08	23:58:00	156	2.0	320
2021/02/09	00:00:00	2021/02/09	11:18:00	678	2.0	1,363
2021/02/09	13:58:00	2021/02/09	23:58:00	602	2.0	1,229
2021/02/10	00:00:00	2021/02/10	10:36:00	636	2.0	1,282
2021/02/10	14:40:00	2021/02/10	23:58:00	560	2.0	1,146
2021/02/11	00:00:00	2021/02/11	12:26:00	746	2.0	1,484
2021/02/11	16:14:00	2021/02/11	23:58:00	466	2.1	961
2021/02/11	00:00:00	2021/02/12	16:28:00	988	2.0	1,993
2021/02/12	20:12:00	2021/02/12	23:58:00	228	2.0	465
2021/02/13	00:00:00	2021/02/13	23:34:00	1,414	2.0	2,823
2021/02/14	03:06:00	2021/02/14	23:58:00	1,254	2.0	2,507
2021/02/15	00:00:00	2021/02/15	02:58:00	178	2.0	352
2021/02/15	06:32:00	2021/02/15	23:58:00	1,048	2.0	2,099
2021/02/16	00:02:00	2021/02/16	08:42:00	522	2.0	1,027
2021/02/16	12:30:00	2021/02/16	23:58:00	690	2.0	1,385
2021/02/17	00:00:00	2021/02/17	07:34:00	454	2.0	897
2021/02/17	21:00:00	2021/02/17	23:58:00	180	2.0	361
2021/02/17	00:00:00	2021/02/17	17:02:00	1,022	2.0	2,020
2021/02/18	21:08:00	2021/02/18	23:58:00	172	2.0	345
2021/02/19	00:00:00	2021/02/19	23:58:00	1,440	1.9	2,806
2021/02/19	00:00:00	2021/02/19	03:04:00	184	1.9	351
2021/02/20	06:30:00	2021/02/20	23:58:00	1,050	2.0	2,056
2021/02/20	00:00:00	2021/02/21	12:02:00	722	1.9	1,390
2021/02/21	15:54:00	2021/02/21	23:58:00	486	2.0	970
2021/02/21	00:00:00	2021/02/21	20:18:00	1,218	2.0	2,388
2021/02/22	23:56:00	2021/02/22	23:58:00	4	2.0	8
2021/02/23	00:00:00	2021/02/23	23:58:00	1,440	2.0	2,829
2021/02/23	00:00:00	2021/02/23	02:56:00	176	1.9	337
2021/02/24	06:28:00	2021/02/24	09:32:00	184	1.9	358
2021/02/24	09:44:00	2021/02/24	10:48:00	64	1.3	85
2021/02/24	11:22:00	2021/02/24	23:58:00	758	0.9	663
		2021/02/24		1		684
2021/02/25	00:00:00		11:38:00	698	1.0	
2021/02/25 2021/02/26	15:12:00	2021/02/25	23:58:00	528	1.6	862
2012 1/01/1/h	00:00:00	2021/02/26	23:58:00	1,440	1.6	2,332
2021/02/27	00:00:00	2021/02/27	23:58:00	1,440	1.6	2,347

CONDENSATE INJECTION (A-12 Flare)

February-21

Totals			28,892	2.3	67,707
		Maximum GPM		2.1	

gpm= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

CONDENSATE INJECTION (A-12 Flare)

March-21

Start Date	Start Time	End Date	End Time	Total Injection Time (min.)	Average GPM	Total Gallons
2021/03/01	00:00:00	2021/03/01	23:58:00	1440	1.6	2359.0
2021/03/02	00:00:00	2021/03/02	23:58:00	1440	1.7	2389.9
2021/03/03	00:00:00	2021/03/03	23:58:00	1440	1.7	2415.8
2021/03/04	00:00:00	2021/03/04	23:58:00	1440	1.7	2404.1
2021/03/05	00:00:00	2021/03/05	09:36:00	576	1.7	964.5
2021/03/05	13:36:00	2021/03/05	23:58:00	624	1.7	1091.9
2021/03/06	00:00:00	2021/03/06	23:58:00	1440	2.1	2984.0
2021/03/07	00:00:00	2021/03/07	19:44:00	1184	2.3	2776.1
2021/03/07	23:16:00	2021/03/07	23:58:00	44	2.3	103.1
2021/03/08	00:00:00	2021/03/08	09:42:00	582	2.3	1324.8
2021/03/08	13:44:00	2021/03/08	23:58:00	616	2.3	1418.3
2021/03/09	00:00:00	2021/03/09	03:22:00	202	2.2	451.1
2021/03/09	06:20:00	2021/03/09	23:58:00	1,060	2.3	2,414
2021/03/10	00:00:00	2021/03/10	02:46:00	166	2.2	369
2021/03/10	05:42:00	2021/03/10	23:58:00	1,098	2.3	2,482
2021/03/11	00:00:00	2021/03/11	06:02:00	362	2.2	805
2021/03/11	09:02:00	2021/03/11	23:58:00	898	2.3	2,041
2021/03/12	00:00:00	2021/03/12	04:30:00	270	2.2	603
2021/03/12	07:28:00	2021/03/12	21:24:00	836	2.3	1,899
2021/03/13	00:26:00	2021/03/13	16:42:00	976	2.3	2,222
2021/03/13	20:08:00	2021/03/13	23:58:00	232	2.3	544
2021/03/14	00:00:00	2021/03/14	01:58:00	120	2.3	275
2021/03/14	03:00:00	2021/03/14	14:22:00	682	2.3	1,547
2021/03/14	17:40:00	2021/03/14	23:58:00	380	2.3	877
2021/03/15	00:00:00	2021/03/15	16:30:00	990	2.2	2,188
2021/03/15	19:26:00	2021/03/15	23:58:00	274	2.3	627
2021/03/16	00:00:00	2021/03/16	16:54:00	1,014	2.2	2,275
2021/03/16	20:18:00	2021/03/16	23:58:00	222	2.3	517
2021/03/17	00:00:00	2021/03/17	15:56:00	956	2.3	2,156
2021/03/17	19:30:00	2021/03/17	23:58:00	270	2.3	632
2021/03/18	00:00:00	2021/03/18	14:50:00	890	2.3	2,031
2021/03/18	18:14:00	2021/03/18	23:58:00	346	2.3	804
2021/03/19	00:00:00	2021/03/19	11:40:00	700	2.3	1,609
2021/03/19	15:06:00	2021/03/19	23:58:00	534	2.3	1,244
2021/03/19	00:00:00	2021/03/19	09:56:00	596	2.3	1,358
2021/03/20	13:18:00	2021/03/20	23:58:00	642	2.3	1,465
2021/03/21	00:00:00	2021/03/20	07:50:00	470	2.2	1,043
2021/03/21	10:56:00	2021/03/21	23:58:00	784	2.3	1,802
2021/03/21	00:00:00	2021/03/21	00:16:00	16	2.1	34
				888	2.3	<del>                                     </del>
2021/03/22	03:12:00 21:18:00	2021/03/22 2021/03/22	18:00:00	162	2.3	2,024 378
2021/03/22			23:58:00	912	2.3	
2021/03/23	00:00:00	2021/03/23	15:12:00			2,061 741
2021/03/23	18:44:00	2021/03/23	23:58:00	316	2.3	+
2021/03/24	00:00:00	2021/03/24	12:16:00	736	2.2	1,642
2021/03/24	15:38:00	2021/03/24	23:58:00	502	2.4	1,183
2021/03/25	00:00:00	2021/03/25	03:28:00	208	2.2	466
2021/03/25	06:36:00	2021/03/25	18:36:00	720	2.3	1,653
2021/03/25	21:50:00	2021/03/25	23:58:00	130	2.3	303
2021/03/26	00:00:00	2021/03/26	13:50:00	830	2.3	1,878

CONDENSATE INJECTION (A-12 Flare)

March-21

			Maxim	um GPM	2.4	
Totals				26,958	3.0	82,094
2021/03/31	19:52:00	2021/03/31	23:58:00	248	2.4	596
2021/03/31	01:36:00	2021/03/31	14:40:00	784	2.3	1,770
2021/03/30	15:36:00	2021/03/30	22:22:00	406	2.4	964
2021/03/30	00:00:00	2021/03/30	11:54:00	714	2.2	1,587
2021/03/29	19:54:00	2021/03/29	23:58:00	246	2.4	582
2021/03/29	01:26:00	2021/03/29	15:44:00	858	2.3	1,934
2021/03/28	15:42:00	2021/03/28	22:12:00	390	2.4	935
2021/03/28	00:00:00	2021/03/28	11:54:00	714	2.3	1,612
2021/03/27	21:46:00	2021/03/27	23:58:00	134	2.4	318
2021/03/27	07:42:00	2021/03/27	17:44:00	602	2.3	1,364
2021/03/27	00:00:00	2021/03/27	04:38:00	278	2.2	624
2021/03/26	17:24:00	2021/03/26	23:58:00	396	2.4	932

gpm= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

<b>ECYCLING &amp; D</b>	ISPOSAL FACI	LITY				
ATE INJECTION	(A-12 Flare)					
April-21						
Start Date	Start Time	End Date	End Time	Total Injection Time (min.)	Average GPM	Total Gallons
2021/04/01	00:00:00	2021/04/01	04:50:00	290	2.3	670.7
2021/04/01	08:00:00	2021/04/01	16:40:00	520	2.3	1184.4
2021/04/01	21:50:00	2021/04/01	23:58:00	130	2.4	313.9
2021/04/02	00:00:00	2021/04/02	09:08:00	548	2.3	1259.9
2021/04/02	12:44:00	2021/04/02	18:28:00	344	2.4	810.7
2021/04/02	22:40:00	2021/04/02	23:58:00	80	2.3	187.8
2021/04/03	00:00:00	2021/04/03	12:12:00	732	2.3	1648.4
2021/04/03	16:08:00	2021/04/03	23:46:00	458	2.3	1072.4
2021/04/04	02:58:00	2021/04/04	15:22:00	744	2.3	1676.7
2021/04/04	19:18:00	2021/04/04	23:58:00	282	2.3	655.5
2021/04/05	00:00:00	2021/04/05	10:28:00	628	2.2	1385.5
2021/04/05	14:10:00	2021/04/05	21:42:00	452	2.3	1049.4
2021/04/06	00:58:00	2021/04/06	14:14:00	796	2.2	1,779
2021/04/06	18:38:00	2021/04/06	23:58:00	322	2.3	755
2021/04/07	00:00:00	2021/04/07	05:00:00	300	2.3	675
2021/04/07	08:12:00	2021/04/07	17:10:00	538	2.3	1,233
2021/04/07	21:06:00	2021/04/07	23:58:00	174	2.3	405
2021/04/08	00:00:00	2021/04/08	12:58:00	778	2.2	1,712
2021/04/08	16:44:00	2021/04/08	23:58:00	436	2.3	1,011
2021/04/09	00:00:00	2021/04/09	01:54:00	114	2.2	251
2021/04/09	05:02:00	2021/04/09	16:26:00	684	2.2	1,523
2021/04/09	20:38:00	2021/04/09	23:58:00	202	2.3	459
2021/04/10	00:00:00	2021/04/10	13:40:00	820	2.1	1,755
2021/04/10	17:36:00	2021/04/10	23:58:00	384	2.2	856
2021/04/11	00:00:00	2021/04/11	06:18:00	378	2.1	797
2021/04/11	09:24:00	2021/04/11	18:22:00	538	2.1	1,155
2021/04/11	22:18:00	2021/04/11	23:58:00	102	2.2	226
2021/04/12	00:00:00	2021/04/12	14:54:00	894	2.1	1,874
2021/04/12	19:54:00	2021/04/12	23:58:00	246	2.2	538
2021/04/13	00:00:00	2021/04/13	10:20:00	620	2.1	1,280
2021/04/13	14:12:00	2021/04/13	21:32:00	440	2.1	942
2021/04/14	00:48:00	2021/04/14	15:34:00	886	2.1	1,817
2021/04/14	20:16:00	2021/04/14	23:58:00	224	2.1	479
2021/04/15	00:00:00	2021/04/15	12:30:00	750	2.0	1,520
2021/04/15	16:28:00	2021/04/15	23:34:00	426	2.1	906
2021/04/16	02:46:00	2021/04/16	15:40:00	774	2.0	1,585
2021/04/16	20:14:00	2021/04/16	23:58:00	226	2.2	488
2021/04/17	00:00:00	2021/04/17	11:04:00	664	2.0	1,355
2021/04/17	14:48:00	2021/04/17	21:42:00	414	2.1	882
2021/04/17	01:04:00	2021/04/17	15:02:00	838	2.1	1,731
2021/04/18	20:14:00	2021/04/18	23:58:00	226	2.1	489
2021/04/18	00:00:00	2021/04/18	07:58:00	478	2.2	994
2021/04/19	11:26:00	2021/04/19	18:22:00	416	2.1	876
2021/04/19	22:42:00	2021/04/19	23:58:00	78	2.1	165
2021/04/19	00:00:00	2021/04/19	13:52:00	832	2.0	1,693
2021/04/20	18:20:00	2021/04/20	23:58:00	340	2.0	717
2021/04/20	00:00:00	2021/04/20	07:06:00	426	2.0	865
				<del> </del>	+	
2021/04/21	10:12:00	2021/04/21	18:44:00	512	2.1	1,053
2021/04/21	22:34:00	2021/04/21	23:58:00	86	2.1	182

ECYCLING & D	ISPOSAL FAC	ILITY				
ATE INJECTION	(A-12 Flare)					
April-21						
2021/04/22	00:00:00	2021/04/22	14:04:00	844	2.0	1,717
2021/04/22	18:16:00	2021/04/22	23:58:00	344	2.1	725
2021/04/23	00:00:00	2021/04/23	06:16:00	376	2.0	762
2021/04/23	09:24:00	2021/04/23	18:24:00	540	2.1	1,111
2021/04/23	22:20:00	2021/04/23	23:58:00	100	2.0	204
2021/04/24	00:00:00	2021/04/24	15:08:00	908	2.0	1,792
2021/04/24	19:40:00	2021/04/24	23:58:00	260	2.1	548
2021/04/25	00:00:00	2021/04/25	11:22:00	682	2.0	1,384
2021/04/25	15:06:00	2021/04/25	23:58:00	534	2.0	1,083
2021/04/26	00:00:00	2021/04/26	11:58:00	718	2.0	1,401
2021/04/26	15:38:00	2021/04/26	23:58:00	502	2.1	1,043
2021/04/27	00:00:00	2021/04/27	06:50:00	410	1.9	799
2021/04/27	11:14:00	2021/04/27	19:08:00	474	2.2	1,035
2021/04/28	00:18:00	2021/04/28	17:36:00	1,038	2.2	2,254
2021/04/28	23:22:00	2021/04/28	23:58:00	38	2.2	85
2021/04/29	00:00:00	2021/04/29	07:30:00	450	2.2	983
2021/04/29	11:12:00	2021/04/29	20:54:00	582	2.2	1,262
2021/04/30	01:50:00	2021/04/30	06:44:00	294	2.1	612
2021/04/30	08:50:00	2021/04/30	18:24:00	574	2.0	1,159
Totals				27,030	2.5	68,901
			Maxin	num GPM	2.3	

gpm= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

CONDENSATE INJECTION (A-12 Flare) May-21

Start Date	Start Time	End Date	End Time	Total Injection Time (min.)	Average GPM	Total Gallons
2021/05/01	00:32:00	2021/05/01	07:10:00	398	2.1	816.3
2021/05/01	11:18:00	2021/05/01	20:08:00	530	2.1	1122.2
2021/05/01	23:14:00	2021/05/01	23:58:00	46	2.3	104.5
2021/05/02	00:00:00	2021/05/02	11:34:00	694	2.2	1541.8
2021/05/02	14:56:00	2021/05/02	21:40:00	404	2.3	925.1
2021/05/03	02:04:00	2021/05/03	09:58:00	474	2.4	1127.1
2021/05/03	13:48:00	2021/05/03	22:02:00	494	2.5	1240.8
2021/05/04	02:26:00	2021/05/04	09:54:00	448	2.4	1090.7
2021/05/04	13:32:00	2021/05/04	20:04:00	392	2.6	1012.2
2021/05/05	02:42:00	2021/05/05	08:40:00	358	2.5	893.5
2021/05/05	12:32:00	2021/05/05	18:54:00	382	2.6	980.3
2021/05/05	22:14:00	2021/05/05	23:58:00	106	2.6	273.3
2021/05/06	00:00:00	2021/05/06	02:40:00	160	2.5	403
2021/05/06	07:24:00	2021/05/06	15:08:00	464	2.4	1,108
2021/05/06	18:14:00	2021/05/06	23:58:00	346	2.4	845
2021/05/07	00:00:00	2021/05/07	06:36:00	396	2.3	926
2021/05/07	09:52:00	2021/05/07	18:32:00	520	2.4	1,227
2021/05/08	00:10:00	2021/05/08	07:40:00	450	2.4	1,060
2021/05/08	11:18:00	2021/05/08	22:08:00	650	2.4	1,567
2021/05/09	02:42:00	2021/05/09	11:14:00	512	2.4	1,207
				424	2.4	
2021/05/09	14:54:00	2021/05/09	21:58:00	480	2.3	1,051
2021/05/10	03:00:00	2021/05/10	11:00:00	434	2.5	1,127
2021/05/10	14:32:00	2021/05/10	21:46:00		<del> </del>	1,091
2021/05/11	03:16:00	2021/05/11	12:54:00	578	2.3	1,358
2021/05/11	16:38:00	2021/05/11	22:14:00	336	2.5	851
2021/05/12	03:36:00	2021/05/12	12:04:00	508	2.4	1,196
2021/05/12	15:32:00	2021/05/12	21:38:00	366	2.5	917
2021/05/13	02:54:00	2021/05/13	11:00:00	486	2.3	1,134
2021/05/13	14:24:00	2021/05/13	22:10:00	466	2.5	1,152
2021/05/14	03:06:00	2021/05/14	10:58:00	472	2.3	1,101
2021/05/14	14:36:00	2021/05/14	23:22:00	526	2.4	1,278
2021/05/15	04:04:00	2021/05/15	14:54:00	650	2.3	1,512
2021/05/15	17:42:00	2021/05/15	23:58:00	378	2.4	919
2021/05/16	00:00:00	2021/05/16	01:02:00	62	2.3	145
2021/05/16	05:08:00	2021/05/16	19:16:00	848	2.3	1,979
2021/05/17	00:22:00	2021/05/17	11:42:00	680	2.3	1,588
2021/05/17	14:48:00	2021/05/17	20:30:00	342	2.5	849
2021/05/18	01:10:00	2021/05/18	14:20:00	790	2.4	1,865
2021/05/18	18:26:00	2021/05/18	22:56:00	270	2.5	667
2021/05/19	03:18:00	2021/05/19	13:40:00	622	2.3	1,454
2021/05/19	16:52:00	2021/05/19	23:58:00	428	2.4	1,047
2021/05/20	00:00:00	2021/05/20	02:24:00	144	2.4	339
2021/05/20	06:14:00	2021/05/20	20:58:00	884	2.3	2,071
2021/05/21	00:14:00	2021/05/21	15:14:00	900	2.3	2,077
2021/05/21	20:00:00	2021/05/21	23:58:00	240	2.4	583
2021/05/22	00:00:00	2021/05/22	09:52:00	592	2.3	1,354
2021/05/22	13:34:00	2021/05/22	18:50:00	316	2.4	764
2021/05/22	23:16:00	2021/05/22	23:58:00	44	2.4	107
2021/05/23	00:00:00	2021/05/23	12:10:00	730	2.3	1,705
2021/05/23	16:30:00	2021/05/23	21:20:00	290	2.5	714
2021/05/24	00:46:00	2021/05/24	13:18:00	752	2.3	1,766
2021/05/24	18:20:00	2021/05/24	23:58:00	340	2.4	832

CONDENSATE INJECTION (A-12 Flare)

May-21

2021/05/25	00:00:00	2021/05/25	00:28:00	28	2.3	65
2021/05/25	03:42:00	2021/05/25	14:52:00	670	2.3	1,572
2021/05/25	19:52:00	2021/05/25	23:58:00	248	2.5	612
2021/05/26	00:00:00	2021/05/26	05:00:00	300	2.4	714
2021/05/26	08:16:00	2021/05/26	16:14:00	478	2.4	1,134
2021/05/26	22:02:00	2021/05/26	23:58:00	118	2.5	297
2021/05/27	00:00:00	2021/05/27	10:46:00	646	2.4	1,555
2021/05/27	14:44:00	2021/05/27	19:12:00	268	2.5	683
2021/05/27	23:44:00	2021/05/27	23:58:00	16	2.5	40
2021/05/28	00:00:00	2021/05/28	09:48:00	588	2.4	1,438
2021/05/28	13:56:00	2021/05/28	18:12:00	256	2.5	641
2021/05/28	23:34:00	2021/05/28	23:58:00	26	2.5	65
2021/05/29	00:00:00	2021/05/29	09:52:00	592	2.3	1,387
2021/05/29	13:42:00	2021/05/29	18:06:00	264	2.4	621
2021/05/29	23:06:00	2021/05/29	23:58:00	54	2.3	127
2021/05/30	00:00:00	2021/05/30	09:00:00	540	2.3	1,221
2021/05/30	12:52:00	2021/05/30	17:32:00	280	2.3	653
2021/05/30	23:40:00	2021/05/30	23:58:00	20	2.4	49
2021/05/31	00:00:00	2021/05/31	07:50:00	470	2.4	1,133
2021/05/31	11:36:00	2021/05/31	16:28:00	292	2.4	694
Totals				29,756	2.4	70,764
			Maxii	num GPM	2.5	

gpm= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

#### **ECYCLING & DISPOSAL FACILITY**

ATE INJECTION (A-12 Flare)
June-21

Start Date	Start Time	End Date	End Time	Total Injection Time (min.)	Average GPM	Total Gallons
2021/06/01	00:34:00	2021/06/01	09:18:00	524	2	1282
2021/06/01	13:24:00	2021/06/01	17:32:00	248	2	614
2021/06/02	00:28:00	2021/06/02	09:16:00	528	2	1295
2021/06/02	13:24:00	2021/06/02	17:30:00	246	3	615
2021/06/03	00:10:00	2021/06/03	09:12:00	542	2	1331
2021/06/03	13:12:00	2021/06/03	17:28:00	256	3	644
2021/06/04	00:28:00	2021/06/04	08:56:00	508	2	1252
2021/06/04	12:56:00	2021/06/04	17:18:00	262	3	663
2021/06/04	23:42:00	2021/06/04	23:58:00	18	3	45
2021/06/05	00:00:00	2021/06/05	09:14:00	554	2	1359
2021/06/05	13:12:00	2021/06/05	18:06:00	294	3	743
2021/06/05	23:34:00	2021/06/05	23:58:00	26	3	66
2021/06/06	00:00:00	2021/06/06	12:38:00	758	2	1842
2021/06/06	17:16:00	2021/06/06	21:32:00	256	3	657
2021/06/07	01:08:00	2021/06/07	13:46:00	758	2	1837
2021/06/07	18:48:00	2021/06/07	23:58:00	312	2	764
2021/06/08	00:00:00	2021/06/08	05:06:00	306	2	711
2021/06/08	08:14:00	2021/06/08	11:52:00	218	2	496
2021/06/08	16:06:00	2021/06/08	19:32:00	206	2	497
2021/06/09	06:54:00	2021/06/09	07:16:00	22	2	50
2021/06/09	09:34:00	2021/06/09	23:58:00	866	2	2034
2021/06/10	00:00:00	2021/06/10	07:04:00	424	2	997
2021/06/10	11:00:00	2021/06/10	23:58:00	780	2	1859
2021/06/10	00:00:00	2021/06/11	00:10:00	10	2	21
2021/06/11	03:28:00	2021/06/11	15:10:00	702	2	1618
2021/06/11	18:08:00	2021/06/11	22:50:00	282	2	689
2021/06/11	03:26:00	2021/06/11	11:38:00	492	2	1156
2021/06/12	14:38:00	2021/06/12	21:28:00	410	2	1002
2021/06/12	02:42:00	2021/06/13	10:10:00	448	2	1070
						1
2021/06/13	13:32:00	2021/06/13	21:08:00	456 504	2	1115 1129
2021/06/14	02:30:00	2021/06/14	10:54:00		2	+
2021/06/14	13:52:00	2021/06/14	19:56:00	364		830
2021/06/15	01:16:00	2021/06/15	09:40:00	504	2	1123
2021/06/15	12:48:00	2021/06/15	21:36:00	528	2	1201
2021/06/16	11:08:00	2021/06/16	17:18:00	370	2	835
2021/06/16	23:48:00	2021/06/16	23:58:00	12	2	28
2021/06/17	00:00:00	2021/06/17	08:20:00	500	2	1128
2021/06/17	11:44:00	2021/06/17	16:24:00	280	2	631
2021/06/18	00:44:00	2021/06/18	07:08:00	384	2	889
2021/06/18	10:52:00	2021/06/18	15:34:00	282	2	641
2021/06/19	01:00:00	2021/06/19	10:48:00	588	2	1339
2021/06/19	15:18:00	2021/06/19	18:48:00	210	2	488
2021/06/20	01:12:00	2021/06/20	11:20:00	608	2	1377
2021/06/20	16:10:00	2021/06/20	19:22:00	192	2	439
2021/06/21	01:16:00	2021/06/21	11:38:00	622	2	1375
2021/06/21	16:28:00	2021/06/21	20:10:00	222	2	505
2021/06/22	00:28:00	2021/06/22	11:00:00	632	2	1390
2021/06/22	15:32:00	2021/06/22	19:10:00	218	2	486
2021/06/23	00:14:00	2021/06/23	10:06:00	592	2	1285
2021/06/23	14:12:00	2021/06/23	18:00:00	228	2	517
2021/06/24	00:10:00	2021/06/24	09:46:00	576	2	1277
2021/06/24	13:44:00	2021/06/24	17:54:00	250	2	565
2021/06/24	23:52:00	2021/06/24	23:58:00	8	2	18
2021/06/25	00:00:00	2021/06/25	09:36:00	576	2	1268
2021/06/25	13:22:00	2021/06/25	17:50:00	268	2	604
2021/06/25	23:56:00	2021/06/25	23:58:00	4	2	9

#### **ECYCLING & DISPOSAL FACILITY**

ATE INJECTION (A-12 Flare)

June-21

			Maxim	um GPM	2.6	
Totals				25,518	2.3	59,123
2021/06/30	21:02:00	2021/06/30	23:58:00	178	2	398
2021/06/30	10:14:00	2021/06/30	15:44:00	330	2	712
2021/06/30	00:00:00	2021/06/30	06:26:00	386	2	831
2021/06/29	21:44:00	2021/06/29	23:58:00	136	2	301
2021/06/29	11:12:00	2021/06/29	17:10:00	358	2	780
2021/06/29	01:28:00	2021/06/29	06:44:00	316	2	688
2021/06/28	14:56:00	2021/06/28	19:08:00	252	2	560
2021/06/28	00:00:00	2021/06/28	10:40:00	640	2	1404
2021/06/27	23:38:00	2021/06/27	23:58:00	22	2	49
2021/06/27	13:56:00	2021/06/27	18:10:00	254	2	571
2021/06/27	00:00:00	2021/06/27	09:46:00	586	2	1297
2021/06/26	23:58:00	2021/06/26	23:58:00	2	2	4
2021/06/26	13:38:00	2021/06/26	17:50:00	252	2	562
2021/06/26	00:00:00	2021/06/26	09:32:00	572	2	1265

n= gallons per minute

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the landfill gas condensate injection rate shall not exceed 5 gpm.

Pursuant to Title V Permit A1812, Condition Number 25301 Part 14, the total landfill gas condensate injection throughput shall not exceed 2,000,000 gallons during any consecutive 12-month period.

# APPENDIX N GAS MIGRATION MONITORING REPORTS





July 10, 2021

Ms. Becky Azevedo Kirby Canyon Recycling & Disposal Facility 910 Coyote Creek Golf Drive San Jose, CA 95037

Re: Second Quarter 2021 Perimeter gas and Methane in Structure Monitoring Report Kirby Canyon Recycling & Disposal Facility

Dear Ms. Azevedo:

This report for the "Kirby Canyon Recycling and Disposal Facility (KCRDF) Landfill" contains the results of the Second Quarter 2021 Perimeter Gas and Methane in Structure Monitoring conducted at the KCRDF. All monitoring was conducted by KCRDF 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.

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 any of the monitoring events.

Results for probes and are summarized in Table 1. All other Field data sheets are presented in Attachment B.

Ms. Becky Azevedo Date: July 10, 2021

### **Kirby Canyon Recycling and Disposal Facility Perimeter Gas Monitoring Probe Results**

Analyst: <u>Markus Bernard</u> Date: <u>4/19/21 & 6/25/2021</u>

Instrument: Gem 2000 Serial #: GM11977

Atmospheric Temperature (Deg F): 73

Barometric Pressure: 29 Inch of HG

Wind Speed: 11 Mph Wind Direction: N

Weather Condition: Clear

n 1 m	TT:	CH <sub>4</sub>	Probe		lition (clean, , locked)	Comments
Probe ID	Time	(%)	Pressure (in-H <sub>2</sub> 0)	Arrival	Departure	Comments
KIRBP01A	4/19/21; 1:22 PM	0	.02	Ok	Ok	
KIRBP01B	4/19/21; 1:25 PM	0	.03	Ok	Ok	
KIRBP02A	4/19/21; 1:32 PM	0	.54	Ok	Ok	
KIRBP02B	4/19/21; 1:35 PM	0	.03	Ok	Ok	
KIRBP03A	4/19/21; 1:48 PM	0	.04	Ok	Ok	
KIRBP03B	4/19/21; 1:51 PM	0	.06	Ok	Ok	
KIRBP04A	4/19/21; 2:00 PM	0	.05	Ok	Ok	
KIRBP04B	4/19/21; 2:02 PM	0	.04	Ok	Ok	
KIRBP05A	4/19/21; 2:13 PM	0	.06	Ok	Ok	
KIRBP05B	4/19/21; 2:16 PM	0	.04	Ok	Ok	
KIRBP06A	4/19/21; 2:21 PM	0	.03	Ok	Ok	
KIRBP06B	4/19/21; 2:24 PM	0	.03	Ok	Ok	
KIRBP07A	4/19/21; 2:34 PM	0	0.08	Ok	Ok	
KIRBP07B	4/19/21; 2:36 PM	0	-0.10	Ok	Ok	
KIRBP08A	4/19/21; 2:44 PM	0	.01	Ok	Ok	
KIRBP08B	4/19/21; 2:47 PM	0	.02	Ok	Ok	
KIRBP09A	4/19/21; 3:09 PM	0	.05	Ok	Ok	

Ms. Becky Azevedo Date: July 10, 2021

n I II	Time	CH <sub>4</sub>	Probe		lition (clean, locked)	Comments
Probe ID	1 ime	(%)	Pressure (in-H <sub>2</sub> 0)	Arrival	Departure	Comments
KIRBP09B	4/19/21; 3:17 PM	0	.03	Ok	Ok	
KIRBP10A	4/19/21; 12:24 PM	0	.03	Ok	Ok	
KIRBP10B	4/19/21; 12:27 PM	0	.03	Ok	Ok	
KIRBP011A	4/19/21; 12:13 PM	0	.12	Ok	Ok	
KIRBP011B	4/19/21; 12:15 PM	0	.03	Ok	Ok	
KIRBP12A	4/19/21; 12:36 PM	0	.02	Ok	Ok	
KIRBP12B	4/19/21; 12:38 PM	0	.00	Ok	Ok	
KIRBP14A	6/25/21; 5:30 PM	0	.01	Ok	Ok	
KIRBP14B	6/25/21; 5:34 PM	0	.00	Ok	Ok	
KIRBP15	4/19/21; 12:00 PM	0	.02	Ok	Ok	

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<sub>4</sub> = 12,500 ppm CH<sub>4</sub>

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

#### STRUCTURE FID MONITORING DATA

Analyst: Markus Bernard Date: 6-25-21
Instrument: FID Serial #:0928538411

<b>Monitored Location</b>	Time	PPM	Comments
Scale House	3:08 PM	0	
Admin Building	2:59PM	0	
Operations Break Trailer	3:12 PM	0	

ND = No detection

Immediately notify compliance personnel of any readings in excess of 1.25 percent methane

#### MONITORING EQUIPMENT AND METHODOLOGY [TITLE 27 §20934(a)(4)]

#### **Perimeter Gas Monitoring**

The facility conducted the required monitoring using a CES-Landtec GEM-2000 gas analyzer (GEM). The monitoring was conducted by Marcus Bernard on April 19, 2021 and June 25, 2021. The static pressure of each probe was monitored using the GEM's internal pressure transducers and the probes were monitored to determine methane concentration.

#### **Facility Structures**

Marcus Bernard used a TVA 1000 to monitor buildings and structures to check for the presence of methane on June 25, 2021. The instrument was calibrated on June 25, 2021 using 500 ppm 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. The most recent calibration was conducted by Marcus Bernard on June 25, 2021.

#### GENERAL WEATHER CONDITIONS [TITLE 27 §20934(a)(3)]

General weather conditions are the time of monitoring are presented in Table 3.

**Table 3 General Weather Conditions** 

Description	April 19, 2021	June 25, 2021
General conditions	Cloudy	Cloudy
Avg Wind Speed (mph)	11.2	9.9
Wind Direction	NW	NW
Barometric Pressure, (Inches of Hg)	30.06	29.97
Average Ambient (Temperature Deg F) Max/Min	66/64	68/59

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

EP Air Specialist- Northern California-Nevada

Ms. Becky Azevedo Date: July 10, 2021

Attachments: Perimeter Gas Probe Location Map KCRDF Field Data

## ATTACHMENT A SITE MAP



## ATTACHMENT B FIELD DATA

#### Kirby Canyon Recycling and Disposal Facility Perimeter Gas Monitoring Probe Results

Analyst: Markus Bernard Date: 4/19/21
Instrument: Gem 2000 Serial #: GM11977

Atmospheric Temperature (Deg F): 73

Barometric Pressure: 29 Inch of HG

Wind Speed: 11 Mph Wind Direction: N

Weather Condition: Clear

D 1 10	TD:	CH <sub>4</sub>	Probe		Condition ped, locked)	Comments
Probe ID	Time	(%)	Pressure (in-H <sub>2</sub> 0)	Arrival	Departure	
KIRBP01A	1:22 PM	0	.02	Ok	Ok	
KIRBP01B	1:25 PM	0	.03	Ok	Ok	
KIRBP02A	1:32 PM	0	.54	Ok	Ok	
KIRBP02B	1:35 PM	0	.03	Ok	Ok	
KIRBP03A	1:48 PM	0	.04	Ok	Ok	
KIRBP03B	1:51 PM	0	.06	Ok	Ok	
KIRBP04A	2:00 PM	0	.05	Ok	Ok	
KIRBP04B	2:02 PM	0	.04	Ok	Ok	
KIRBP05A	2:13 PM	0	.06	Ok	Ok	
KIRBP05B	2:16 PM	0	.04	Ok	Ok	
KIRBP06A	2:21 PM	0	.03	Ok	Ok	
KIRBP06B	2:24 PM	0	.03	Ok	Ok	
KIRBP07A	2:34 PM	0	0.08	Ok	Ok	
KIRBP07B	2:36 PM	0	-0.10	Ok	Ok	
KIRBP08A	2:44 PM	0	.01	Ok	Ok	
KIRBP08B	2:47 PM	0	.02	Ok	Ok	
KIRBP09A	3:09 PM	0	.05	Ok	Ok	
KIRBP09B	3:17 PM	0	.03	Ok	Ok	
KIRBP10A	12:24 PM	0	.03	Ok	Ok	

Ducks ID	Time	CH <sub>4</sub> Probe		CH <sub>4</sub>	CH <sub>4</sub>	CH <sub>4</sub> I			Condition ped, locked)	Comments
Probe ID	Time	(%)	Pressure (in-H <sub>2</sub> 0)	Arrival	Departure					
KIRBP10B	12:27 PM	0	.03	Ok	Ok					
KIRBP011A	12:13 PM	0	.12	Ok	Ok					
KIRBP011B	12:15 PM	0	.03	Ok	Ok					
KIRBP12A	12:36 PM	0	.02	Ok	Ok					
KIRBP12B	12:38 PM	0	.00	Ok	Ok					
KIRBP14A	5:30 PM 6-25-21	0	.01	Ok	Ok					
KIRBP14B	5:34 PM 6-25-21	0	.00	Ok	Ok					
KIRBP15	12:00 PM	0	.02	Ok	Ok					

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<sub>4</sub> = 12,500 ppm CH<sub>4</sub>

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

#### STRUCTURE FID MONITORING DATA

Analyst: <u>Markus Bernard</u>	Date: <u>6-25-21</u>
	~
Instrument: <u>FID</u>	Serial <u>#:0928538411</u>

Monitored Location	Time	PPM	Comments
Scale House	3:08 PM	0	
Admin Building	2:59PM	0	
Operations Break Trailer	3:12 PM	0	

ND = No detection

Immediately notify compliance personnel of any readings in excess of 1.25 percent methane.



#### GAS DETECTOR CALIBRATION RECORD

LOCATION: KIRBY CANYON RECYCLING AND DISPOSAL FACILITY

Sierra Monitor Corporation Model # 2001 MANUFACTURER & MODEL NUMBER:

CALIBRATED BY / INSTRUMENT USED: / Cal System Model# 26

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
Main Office	6-25-21	1500700087GAM	YES	Good Condition
Scale House	6-25-21	1500700088GAM	YES	<b>Good Condition</b>
Break Trailer	6-25-21	1500700089GAM	YES	Good Condition

This form must be retained for 12 months after completion.

### CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Canyon Landfill Date: 6/25/21
Time: AM2:45 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):2 ppm (a)
2. Downwind Reading (highest in 30 seconds): ppm (b)
Calculate Background Value:
$\underbrace{(a) + (b)}_{2} \qquad \text{Background} = \underbrace{2}_{ppm}$
2

Performed by: Markus Bernard

#### **CALIBRATION PRECISION TEST RECORD**

Date: <u>6/4/2021</u>
Expiration Date (3 months): 9/4/2021
Time: <u>8:45</u> 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: 496 ppm (b)
Measurement #2:
Meter Reading for Zero Air: ppm (c)
Meter Reading for Calibration Gas: 498ppm (d)
Measurement #3:
Meter Reading for Zero Air: ppm (e)
Meter Reading for Calibration Gas: 496 ppm (f)
Calculate Precision:
$\frac{\{ (496) - (500)  +  (500) - (498)  +  (500) - (496) \}}{3} \times \frac{1}{500} \times 100$
1.0 % (must be < than 10%)
Performed by: M. Bernard

#### RESPONSE TIME TEST RECORD

Date: 6/4/21 Expiration Date (3 months): 9/4/21 Time: 8:50 AM PM Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411 Measurement #1: Stabilized Reading Using Calibration Gas: 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: 5 seconds (b) Measurement #3: Stabilized Reading Using Calibration Gas: 496 ppm 90% of the Stabilized Reading: 450 ppm Time to Reach 90% of Stabilized Reading after switching from Zero Air to Calibration Gas: \_\_\_\_\_\_5 seconds (c) Calculate Response Time:  $\underline{(a) + (b) + (c)} = \underline{8}$  seconds (must be less than 30 seconds) Performed by: M. Bernard



April 9, 2021

Ms. Becky Azevedo Kirby Canyon Recycling & Disposal Facility 910 Coyote Creek Golf Drive San Jose, CA 95037

Re: First Quarter 2021 Perimeter gas and Methane in Structure Monitoring Report Kirby Canyon Recycling & Disposal Facility

Dear Ms. Azevedo:

This report for the "Kirby Canyon Recycling and Disposal Facility (KCRDF) Landfill" contains the results of the First Quarter 2021 Perimeter Gas and Methane in Structure Monitoring conducted at the KCRDF. All monitoring was conducted by KCRDF 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.

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 any of the monitoring events.

Results for probes and are summarized in Table 1. All other Field data sheets are presented in Attachment B.

Ms. Becky Azevedo Date: April 1, 2021

### **Kirby Canyon Recycling and Disposal Facility Perimeter Gas Monitoring Probe Results**

Analyst: Markus Bernard Date: 3-10-21/3-12-21

Instrument: Gem 5000 Serial #: GM11977

Atmospheric Temperature (Deg F): \_\_\_\_54 / 64\_\_

Barometric Pressure: 29 Inch of HG

Wind Speed: 10 mph/7 mph Wind Direction: NW/NW

Weather Condition: Clear

Probe ID	Time o	CH <sub>4</sub>	Probe		lition (clean, , locked)	Comments
Probe 1D	Time	(%)	Pressure (in-H <sub>2</sub> 0)	Arrival	Departure	Comments
KIRBP01A	3-10-21; 2:25 PM	0	0.10	Ok	Ok	
KIRBP01B	3-10-21; 2:27 PM	0	0.11	Ok	Ok	
KIRBP02A	3-10-21; 2:13 PM	0	.09	Ok	Ok	
KIRBP02B	3-10-21; 2:15 PM	0	0.09	Ok	Ok	
KIRBP03A	3-10-21; 2:06 PM	0	0.08	Ok	Ok	
KIRBP03B	3-12-21; 4:53 PM	0	-0.90	Ok	Ok	
KIRBP04A	3-10-21; 1:57 PM	0	0.06	Ok	Ok	
KIRBP04B	3-10-21; 2:00 PM	0	0.06	Ok	Ok	
KIRBP05A	3-10-21; 1:44 PM	0	0.06	Ok	Ok	
KIRBP05B	3-10-21; 1:48PM	0	0.02	Ok	Ok	
KIRBP06A	3-10-21; 12:13PM	0	-0.01	Ok	Ok	
KIRBP06B	3-10-21; 12:16 PM	0	0.05	Ok	Ok	
KIRBP07A	3-10-21; 12:05PM	0	0.04	Ok	Ok	
KIRBP07B	3-10-21;12:07 PM	0	0.05	Ok	Ok	
KIRBP08A	3-10-21;11:55 AM	0	0.03	Ok	Ok	
KIRBP08B	3-10-21;11:57 AM	0	0.05	Ok	Ok	
KIRBP09A	3-12-21;5:01PM	0	0.03	Ok	Ok	

Ms. Becky Azevedo Date: April 1, 2021

n I II	7D*	CH <sub>4</sub>	Probe		lition (clean, , locked)	G 4
Probe ID	Time	(%)	Pressure (in-H <sub>2</sub> 0)	Arrival	Departure	Comments
KIRBP09B	3-10-21;2:37 PM	0	0.00	Ok	Ok	
KIRBP10A	3-10-21;4:02 PM	0	0.00	Ok	Ok	
KIRBP10B	3-10-21;4:10 PM	0	0.01	Ok	Ok	
KIRBP011A	3-10-21;4:35PM	0	0.04	Ok	Ok	
KIRBP011B	3-10-21;4:37 PM	0	0.04	Ok	Ok	
KIRBP12A	3-10-21;10:51 AM	0	0.00	Ok	Ok	
KIRBP12B	3-10-21;10:53AM	0	0.00	Ok	Ok	
KIRBP14A	3-10-21;4:41PM	0	0.05	Ok	Ok	
KIRBP14B	3-10-21;4:43 PM	0	0.05	Ok	Ok	
KIRBP15	3-10-21;4:47 PM	0	0.00	Ok	Ok	

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<sub>4</sub> = 12,500 ppm CH<sub>4</sub>

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

#### STRUCTURE FID MONITORING DATA

Analyst: Markus Bernard Date: 3/11/2021
Instrument: FID Serial #:0928538411

<b>Monitored Location</b>	Time	PPM	Comments
Scale House	9:30 AM	0	
Admin Building	9:00 AM	0	
Operations Break Trailer	9:15 AM	0	

ND = No detection

Immediately notify compliance personnel of any readings in excess of 1.25 percent methane

#### MONITORING EQUIPMENT AND METHODOLOGY [TITLE 27 §20934(a)(4)]

#### **Perimeter Gas Monitoring**

The facility conducted the required monitoring using a CES-Landtec GEM-2000 gas analyzer (GEM). The monitoring was conducted by Marcus Bernard on March 10 and 12, 2021. The static pressure of each probe was monitored using the GEM's internal pressure transducers and the probes were monitored to determine methane concentration.

#### **Facility Structures**

Marcus Bernard used a TVA 1000 to monitor buildings and structures to check for the presence of methane on March 12, 2021. The instrument was calibrated on March 12, 2021using 500 ppm 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. The most recent calibration was conducted by Marcus Bernard on March 12, 2021.

#### GENERAL WEATHER CONDITIONS [TITLE 27 §20934(a)(3)]

General weather conditions are the time of monitoring are presented in Table 3.

**Table 3 General Weather Conditions** 

Description	March 10, 2021	March 12, 2021	
General conditions	Cloudy	Cloudy	
Avg Wind Speed (mph)	6.2	10.5	
Wind Direction	ESE	NNW	
Barometric Pressure, (Inches of Hg)	29.94	30.13	
Average Ambient (Temperature Deg F) Max/Min	52/45	64/63	

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

EP Air Specialist- Northern California-Nevada

Ms. Becky Azevedo Date: April 1, 2021

Attachments: Perimeter Gas Probe Location Map KCRDF Field Data

## ATTACHMENT A SITE MAP



## ATTACHMENT B FIELD DATA

#### Kirby Canyon Recycling and Disposal Facility Perimeter Gas Monitoring Probe Results

Analyst: Markus Bernard Date: 3-10-21/3-12-21

Instrument: Gem 5000 Serial #: GM11977
Atmospheric Temperature (Deg F): 54 / 64

Barometric Pressure: 29 Inch of HG

Wind Speed: <u>10 mph/7 mph</u> Wind Direction: <u>NW/NW</u>

Weather Condition: Clear

Probe ID	TO:	CH <sub>4</sub>	Probe Pressure (in-H <sub>2</sub> 0)	Probe Condition (clean, capped, locked)		Comments
	Time	(%)		Arrival	Departure	
KIRBP01A	2:25 PM	0	.10	Ok	Ok	
KIRBP01B	2:27 PM	0	.11	Ok	Ok	
KIRBP02A	2:13 PM	0	.09	Ok	Ok	
KIRBP02B	2:15 PM	0	.09	Ok	Ok	
KIRBP03A	2:06 PM	0	.08	Ok	Ok	
KIRBP03B	4:53 PM 3-12-21	0	9	Ok	Ok	
KIRBP04A	1:57 PM	0	.06	Ok	Ok	
KIRBP04B	2:00 PM	0	.06	Ok	Ok	
KIRBP05A	1:44 PM	0	.06	Ok	Ok	
KIRBP05B	1:48PM	0	.02	Ok	Ok	
KIRBP06A	12:13PM	0	01	Ok	Ok	
KIRBP06B	12:16 PM	0	.05	Ok	Ok	
KIRBP07A	12:05PM	0	.04	Ok	Ok	
KIRBP07B	12:07 PM	0	.05	Ok	Ok	
KIRBP08A	11:55 AM	0	.03	Ok	Ok	
KIRBP08B	11:57 AM	0	.05	Ok	Ok	
KIRBP09A	5:01PM 3-12-21	0	.03	Ok	Ok	
KIRBP09B	2:37 PM	0	.00	Ok	Ok	
KIRBP10A	4:02 PM	0	.00	Ok	Ok	

Probe ID Time		CH <sub>4</sub>	Probe	Probe Condition (clean, capped, locked)		Comments
Probe ID	Probe ID Time	(%)	Pressure (in-H <sub>2</sub> 0)	Arrival	Departure	
KIRBP10B	4:10 PM	0	.01	Ok	Ok	
KIRBP011A	4:35PM	0	.04	Ok	Ok	
KIRBP011B	4:37 PM	0	.04	Ok	Ok	
KIRBP12A	10:51 AM	0	.00	Ok	Ok	
KIRBP12B	10:53AM	0	.00	Ok	Ok	
KIRBP14A	4:41PM	0	.05	Ok	Ok	
KIRBP14B	4:43 PM	0	.05	Ok	Ok	
KIRBP15	4:47PM	0	.00	Ok	Ok	

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<sub>4</sub> = 12,500 ppm CH<sub>4</sub>

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

#### STRUCTURE FID MONITORING DATA

Analyst: <u>Markus Bernard</u>	Date:3/11/2021
Instrument: FID	Serial #:0928538411

Monitored Location	Time	PPM	Comments
Scale House	9:30 AM	0	
Admin Building	9:00AM	0	
Operations Break Trailer	9:15 AM	0	

ND = No detection

Immediately notify compliance personnel of any readings in excess of 1.25 percent methane.



#### GAS DETECTOR CALIBRATION RECORD

LOCATION: KIRBY CANYON RECYCLING AND DISPOSAL FACILITY

Sierra Monitor Corporation Model # 2001 MANUFACTURER & MODEL NUMBER:

CALIBRATED BY / INSTRUMENT USED: / Cal System Model# 26

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
Main Office	3-12-21	1500700087GAM	YES	Good Condition
Scale House	3-12-21	1500700088GAM	YES	Good Condition
Break Trailer	3-12-21	1500700089GAM	YES	Good Condition

This form must be retained for 12 months after completion.

# CALIBRATION PROCEDURE AND BACKGROUND DETERMINATION REPORT

Landfill Name: Kirby Canyon Landfill       Date: 3/11/21         Time: 8:15 AM PM
Instrument Make: Thermo Scientific Model: TVA 1000 S/N: 0928538411
<u>Calibration Procedure</u>
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):4 ppm (b)
Calculate Background Value:
$\frac{(a) + (b)}{2} \qquad \text{Background} = \underline{\qquad \qquad 6 \qquad \text{ppm}}$

Performed by: Markus Bernard

### **CALIBRATION PRECISION TEST RECORD**

Date: 3/3/2021
Expiration Date (3 months): 6/2/2021
Time: <u>8:48</u> 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: ppm (c)
Meter Reading for Calibration Gas: 498ppm (d)
Measurement #3:
Meter Reading for Zero Air: 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: <u>3/3/21</u>		
Expiration Date (3 months): <u>6/2/21</u>		
Time: <u>8:48</u> AM PM		
Instrument Make: <u>Thermo Scientific</u> Model: <u>TVA 1000</u>	_ 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		_ 1 1
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		_ FF
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:		
$\frac{(a) + (b) + (c)}{3} = \frac{8}{3}$ seconds (must be less than 30 seconds)	econds)	
Performed by: M. Bernard		

### **APPENDIX O**

### A-12 FLARE PERFORMANCE TEST SUMMARY OF RESULTS

# Kirby Canyon Recycling and Disposal Facility BAAQMD Facility # 1812

### Compliance Test Report #21063 Landfill Gas Flare A-12

Located at: **Kirby Canyon Recycling and Disposal Facility**910 Coyote Creek Golf Drive

Morgan Hill, CA 95037

Prepared for:
SCS Engineers
3117 Fite Circle, Suite 108
Sacramento, CA 95827
Attn: Michael O'Connor
moconnor@scsengineers.com

For Submittal to:

Bay Area Air Quality Management District

375 Beale Street, Suite 600 San Francisco, CA 94105 Attn: Gloria Espena/Marco Hernandez

gespena@baaqmd.gov/mhernandez@baaqmd.gov sourcetest@baaqmd.gov

Testing Performed on: **February 25<sup>th</sup>, 2021** 

Final Report Submitted on: **April 15<sup>th</sup>, 2021** 

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 (925) 338-4875.

Chill Ch

Chuck Arrivas, QSTI

Project Manager

Blue Sky Environmental, Inc.

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### **SECTION 1. INTRODUCTION**

### 1.1. Summary

Blue Sky Environmental, Inc. was contracted by SCS Engineers to perform the emissions testing for Waste Management of California, Inc. (WM), at the Kirby Canyon Recycling and Disposal Facility (KCRDF), located in San Jose, California. Testing was conducted to demonstrate that Landfill Gas Flare A-12 is operating in compliance with the Bay Area Air Quality Management District (BAAQMD) permit condition 1437 for Facility 1812. Results of the test program are presented in this report. The source test information is summarized in Table 1. Test results derived from the source test are summarized in Table 2. Results for individual test runs are included in Appendix A. The flare met all compliance emission criteria.

**Table 1. Source Test Information** 

Test Location:	Kirby Canyon Recycling and Disposal Facility (KCRDF), 910 Coyote Creek Golf Drive, Morgan Hill, CA 95037
Source Contact:	Michael O'Connor, SCS Engineers (707) 236-3791
Source Tested:	LFG Specialties, Inc. Enclosed Landfill Gas Flare A-12, 124 MMBtu/hr
Source Test Date:	February 25 <sup>th</sup> , 2021
Test Objective:	Determine Compliance with Bay Area Air Quality Management District (BAAQMD) permit condition 1437 for Plant #1812; Regulation 8, Rule 34; and the State Landfill Methane Gas Rule under AB32 for Flare performance.
Test Performed By:	Blue Sky Environmental, Inc 624 San Gabriel Avenue, Albany, CA 94706 Chuck Arrivas (925) 338-4875 carrivas@blueskyenvironmental.com
Test Parameters:	Landfill Gas O2, N2, CO2, BTU, THC, CH4, NMOC, HHV, F-Factor, Sulfur and VOC Species, Volumetric Flow rate Flare Emissions THC, CH4, NMOC, NOx, CO, O2, SO2, Moisture, Volumetric Flow rate.



Table 2. Compliance Summary

### Condensate On

Emission Parameter	Average Results (Condensate On)	Permit Limit	Compliance Status
NO <sub>X</sub> , lbs/MMBtu	0.050	0.06	In Compliance
CO, lbs/MMBtu	0.003	0.3	In Compliance
SO <sub>2</sub> , ppm	26.5	300	In Compliance
NMOC, (ppm @ 3% O <sub>2</sub> as CH <sub>4</sub> )	2.45	30	In Compliance
NMOC Destruction Efficiency	99.26	>98%	In Compliance
CH <sub>4</sub> Destruction Efficiency	>99.98	>99%	In Compliance

### **Condensate Off**

Emission Parameter	Average Results (Condensate Off)	Permit Limit	Compliance Status
NOx, lbs/MMBtu	0.039	0.06	In Compliance
CO, lbs/MMBtu	0.004	0.3	In Compliance
SO <sub>2</sub> , ppm	32.2	300	In Compliance
NMOC, (ppm @ 3% O <sub>2</sub> as CH <sub>4</sub> )	2.35	30	In Compliance
NMOC Destruction Efficiency	99.38	>98%	In Compliance
CH <sub>4</sub> Destruction Efficiency	>99.98	>99%	In Compliance

#### **SECTION 2. SOURCE TEST PROGRAM**

#### 2.1. Overview

This annual source test was performed to demonstrate that landfill gas Flare A-12 is operating in accordance with Bay Area Air Quality Management District (BAAQMD) permit condition #1437 for Facility #1812 and Regulation 8, Rule 34. This testing also satisfies the compliance requirements outlined in the State Landfill Methane Gas Rule under AB32 for Flare performance.

#### 2.2. Pollutants Tested

The following U.S. Environmental Protection Agency (EPA) and ASTM International sampling and analytical methods were used:

EPA Method 1 Sample and Traverse Point Determination EPA Method 3A O<sub>2</sub> and CO<sub>2</sub>, Stack Gas Molecular Weight

EPA Method 10 CO

EPA Method 7E NO<sub>X</sub> and NO<sub>2</sub> Converter Check

EPA Method 4, part 16.4 Moisture Calculation EPA Method 18 CH<sub>4</sub>, THC, NMOC

EPA Method 19 Flow Rate Calculation DSCFM

EPA Method 25A VOC Emissions

EPA Method 25C TNMHC (NMOC) in fuel

ASTM D-1945/3588 BTU, F-Factor and Fixed Gases in Fuel

ASTM D-5504 Sulfur Species, Hydrogen Sulfide (H<sub>2</sub>S) and TRS

EPA Method TO-15 Toxic Organic Compounds

### 2.3. Test Date(s)

Testing was conducted on February 25th, 2021.

### 2.4. Sampling and Observing Personnel

Testing was conducted by Chuck Arrivas and Guy Worthington, representing Blue Sky Environmental, Inc.

Rajan Phadnis, Bill Louis 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. Jon Silva of SCS Engineers was also on site to assist with the test program.

The BAAQMD was notified of the scheduled testing in a plan submitted by SCS Engineers on behalf of Waste Management on January 27th, 2021. A Source Test Protocol acknowledgement (NST #6313) was received on January 27th, 2021; however, no agency observers were present during testing. A copy of the source test protocol and email correspondence are provided in Appendix I.

### 2.5. Source/Process Description

The Kirby Canyon Recycling and Disposal Facility, located in Morgan Hill, CA, is a multi-material landfill with a gas collection system that is abated by an industrial landfill gas flare. Flare A-12 has a 124 MMBtu/hr multiple nozzle burner. The flare shell is 50 feet high and 12.5 feet in diameter. The inside diameter (ID) is approximately 138 inches.

The flare set-point is established at 1,565 °F. Methane quality typically ranges from 46 - 52%, with an oxygen content of  $\leq$ 1.5%. 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 was operated on landfill gas under normal operating conditions during testing with the condensate injection both on and off. The condensate injection rate averaged 1.29 gallons per minute (gpm).

The average exhaust temperature at normal operating condition was 1,564 °F. The LFG flowrate ranged from 1,978 to 2,027 SCFM. The operating exhaust temperature, and LFG flowrate records are provided in Appendix F.

Landfill gas samples collected at the head of the flare showed an average methane content of 47.2% and an oxygen content of 2.0%.



#### SECTION 3. SAMPLING AND ANALYSIS PROCEDURES

#### 3.1. Port Location

Sampling was conducted at the 50-foot exhaust stack of the flare through ports that were accessed with a 60-foot boom lift. The four 4-inch flange ports were located 45 feet above grade, approximately four stack diameters downstream from the burners and one stack diameter upstream from the exhaust.

### 3.2. Point Description/Labeling – Ports/Stack

Blue Sky Environmental, Inc. conducted two perpendicular 8-point traverses to check for the presence of cyclonic flow. O<sub>2</sub> stratification was greater than 10%; therefore, subsequent CEM sampling was conducted using all traverse points. Sampling was performed for two minutes per point for a total of 16 points over each 32-minute test run. The traverse points for the 138-inch diameter stack with 4-inch ports were 8.4, 18.5, 30.8, 48.6, 97.4, 115.2, 127.5 and 137.6 inches.

### 3.3. Sample Train Description

Sampling system diagrams are included in the Appendix H. Additional descriptive information is included in the following section.

### 3.4. Sampling Procedure Description

Six consecutive 30-minute gaseous emissions tests were conducted for oxides of nitrogen (NO<sub>X</sub>), nitric oxide (NO), carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), oxygen (O<sub>2</sub>), and total hydrocarbons (THC) at the flare exhaust stack. Three tests were performed with the Condensate Injection On and three tests were performed with the Condensate Injection Off. The gas flow was controlled with a rotameter to collect the 32-minute integrated samples.

The sampling system was checked for leaks before the start of the testing, by plugging the sample probe and observing the sample rotameter flow drop to zero. Instrument linearity and system bias were checked. The system response time for each analyzer was recorded. The temperatures of the heated sample line between the probe and sample conditioner/condenser, and the condenser exhaust temperatures were maintained within limits during each test run.

Analyzer external calibrations were performed before and after each run using EPA protocol certified gas standards. Calibration gases were introduced to the sample manifold at the same flow rate as the sample. A NOx analyzer converter efficiency check was performed before the first test run and achieved an efficiency greater than 90%.

Concurrent with the exhaust sampling, Blue Sky collected a total of six integrated fuel samples (three samples with the Condensate Injection On and three samples with the Condensate Injection Off) for off-site analysis by Atmospheric Analysis & Consulting, Inc., located in Ventura, CA. The samples were collected in 6-liter SUMMA canisters and analyzed for hydrocarbons by EPA Method 25, sulfur species (incl. H<sub>2</sub>S and TRS) by ASTM D-5504, toxic organic compounds by EPA Method TO-15 (AP-42 2.4-1), and HHV, F-factor, fixed gases, volatile organic compounds (VOCs), nonmethane organic compounds (NMOCs) and C¹-C<sup>6+</sup> hydrocarbons by EPA Method 25C and ASTM D-1945.

The sampling and analysis procedures are summarized below:

### EPA Method 1 – Sample and Velocity Traverses for Stationary Sources

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 – Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure)

This method is used to measure oxygen and carbon dioxide in stationary source emissions using a continuous instrumental analyzer to determine the molecular weight of the stack gas.

### EPA Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources

This method is used to measure carbon monoxide from integrated or continuous gas samples extracted from a sampling point.

# EPA Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure)

This method is used to measure nitrogen oxides in stationary source emissions using a continuous instrumental analyzer. Section 16.2.2 of the method is used to determine the NO<sub>X</sub> analyzer NO<sub>2</sub> to NO conversion efficiency.

EPA Methods 3A, 7E and 10 are all 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 continuing emissions monitoring (CEM) test van. The sampling system consists of a stainless steel sample probe, Teflon sample line, glass-fiber particulate filter, and glass moisture-knockout condensers in ice, followed by thermoelectric coolers (optional), Teflon sample transfer tubing, a diaphragm pump, and a stainless steel/Teflon manifold and flow control/delivery system. A constant sample and calibration gas supply pressure of 5 PSI is provided to each analyzer to avoid pressure variable response differences. The entire sampling system is leak checked prior to and at the end of the sampling program.

The sampling and analytical system is 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 use the calibration gas that most closely matches the stack gas effluent. All calibrations during testing are performed externally to incorporate any system bias that may exist. Sampling system bias, zero and calibration drift values are determined for each test. EPA 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.

### System Performance Criteria

Instrument Linearity≤2% Full ScaleInstrument Bias≤5% Full ScaleSystem Response Time≤± 2 minutes

 $NO_X$  Converter Efficiency (EPA Method 7E)  $\geq 90\%$ 

Instrument Zero Drift  $\leq \pm 3\%$  Full Scale Instrument Span Drift  $\leq \pm 3\%$  Full Scale

#### EPA Method 4-16.4 – Determination of Moisture Content in Stack Gas

This is an acceptable alternative to EPA Method 4 for the determination of moisture using F-factors. The mole fraction of 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 of 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 of hydrogen in the fuel. To determine the moisture in the fuel, the raw fuel analysis before normalization to 100% is referenced.

# EPA Method 18 - Measurement of Gaseous Organic Compound Emissions by Gas Chromatography

This method is used to determine emissions of volatile organics by gas chromatograph/mass spectroscopy (GC/MS). Gaseous emissions are drawn through a Teflon sample transfer line to a Tedlar bag held in a rigid leak proof bag container. The sample is drawn into the bag by 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 for the collection time. The bag samples are taken to a laboratory and analyzed within 72 hours.

# EPA Method 19 – Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxide Emission Rates

This method is used to determine stack gas volumetric flow rates using oxygen-based F-factors. F-factors are ratios of combustion gas volumes to heat inputs. The heating value of the fuel in Btu per cubic foot is determined from analysis of fuel gas samples using ASTM D1946/1945 gas chromatography analytical procedures. 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 are used to determine emission rates. 301.

# EPA Method 25A – Determination of Total Gaseous Organic Concentration using a Flame Ionization Analyzer

This method is used to measure total hydrocarbons, methane, and non-methane hydrocarbons in stationary source emissions using a gas chromatograph with a flame ionization detector (GC/FID). Heated Teflon sample gas transfer lines are used to provide a continuous sample to the heated GC/FID hydrocarbon analyzer. Heated lines are used to avoid moisture or hydrocarbon condensation.



The sampling and analytical system is checked for linearity with zero, low (25-35%), mid (45-55%), and high (80-90%) span calibrations. All calibrations during testing are performed externally to incorporate any system bias that may exist. Sampling system bias, zero and calibration drift values are determined for each test.

## EPA Method 25C – Determination of Nonmethane Organic Compounds (NMOC) in Landfill Gas

This method is used to sample and measure NMOC in landfill gases. The method is written for evacuated tank sampling but is adaptable to Tedlar bag sampling procedures. The sampling equipment consists of a stainless steel or glass lined probe with a short stainless-steel or Teflon transfer line to a Tedlar bag housed in a sealed chamber. The chamber is evacuated by pump at a prescribed rate for the test duration and the Tedlar bag capacity, so the sample is integrated over the test period. The sample is injected into a GC column where the methane and CO<sub>2</sub> are flushed through and removed then the NMOC (ROC) fraction is oxidized to form CO<sub>2</sub> then reduced to methane and analyzed

### ASTM D1945 - Analysis of Natural Gas by Gas Chromatography

This method is used to measure fixed gases (such as oxygen, nitrogen, carbon monoxide, and carbon dioxide) and methane by gas chromatography (GC/TCD). Light hydrocarbons, including C1-C7, are analyzed by GC/FID.

# ASTM D-3588 – Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels

This method uses the molar composition of gaseous fuel determined from Method ASTM D-1945 to calculate the heating value and F-factor.

# ASTM D-5504 – Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence

This method is used for the determination of speciated volatile sulfur-containing compounds in high methane content gaseous fuels by gas chromatography. Sulfur compounds are processed using a flame ionization detector (GC/FID). The products are then analyzed with a sulfur chemiluminescence detector (GC/SCD). Samples may be collected in Tedlar bags and analyzed within 24 hours or in Silco SUMMA canisters and analyzed 7 days.

## EPA Compendium Method TO-15 – Determination of Toxic Organic Compounds in Ambient Air

This method is used to measure volatile organic compounds that are included in the hazardous air pollutants (HAPs) listed in Title III of the Clean Air Act Amendments of 1990 by GC/MS (gas chromatography/mass spectroscopy). Samples are collected in pre-evacuated 6-Liter SUMMA canisters with pre-set flow controllers set to integrate over the desired test duration. The SUMMA® passivated canisters allow holding times up to 14 days for the TO-15 Method list of volatile organics. The sample gas is drawn by the canister vacuum through a micro-filter, pre-set orifice flow controller and on/off valve into the canister. The canister vacuum is monitored with a vacuum gauge to verify sample collection. The flow controller consisted of capillary orifice tubing designed to sample for a pre-set duration of 0.75hrs.

### 3.5. Instrumentation and Analytical procedures

The following continuous emissions analyzers were used:

Instrumentation	Parameter	Principle
TECO Model 42C	NO <sub>X</sub> /NO	Chemiluminescence
TECO Model 48C	CO	GFC/IR
TECO Model 55C	NMOC/CH <sub>4</sub>	FID
CAI Fuji ZRH	CO <sub>2</sub>	IR
Servomex Model 1440	$O_2$	Paramagnetic

The analyzer data recording system consists of a Honeywell DPR300 strip chart recorder, supported by a Data Acquisition System (DAS). The instrument response is recorded on strip charts and DAS. The averages are corrected for drift using BAAQMD and EPA Method 7E equations. All system performance criteria were met.

### 3.6. Comments: Limitations and Data Qualifications

This source test was performed in accordance with the protocol submitted to the BAAQMD. No deviations from the protocol or anomalies were observed during testing. The measured emissions from the flare comply with the permit limits.

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**

Α.	Tabulated Results
В.	Calculations
C.	Laboratory Reports
D.	Field Data Sheets
E.	Strip Charts
F.	Process Information
G.	QC Calibration Certificates and Quality Assurance Records
Н.	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

### Kirby Canyon Recycling & Disposal Facility Flare A-12

1,564°F - Condensate On

RUN	1	2	3	AVERAGE	LIMITS
Test Date	2/25/21	2/25/21	2/25/21		
Test Time	0826-0901	0929-1006	1031-1106		
Standard Temperature, °F	70	70	70		
Flare Temperature, °F Average	1,565	1,564	1,564	1,564	
Condensate Injection, gpm	1.32	1.30	1.26	1.29	
Fuel Flow Rate, SCFM	1,978	1,989	1,991	1,986	
Fuel Heat Input, MMBtu/hr	55.9	56.6	56.9	56.5	
Exhaust Flow Rate, DSCFM (EPA M19)	20,654	20,398	20,952	20,668	
Oxygen, O <sub>2</sub> , %	11.9	11.6	11.8	11.8	<b>]</b>
Carbon Dioxide, CO <sub>2</sub> , %	8.1	8.3	8.1	8.2	
Water Vapor, H <sub>2</sub> O, % (EPA M4.16)	11.7	8.7	8.5	9.6	<b>]</b>
NO, ppm	18.6	21.1	19.1	19.6	
$NO_2$ , ppm	<1.0	<1.0	<1.0	<1.0	
NO <sub>2</sub> /NO	< 0.05	< 0.05	< 0.05	< 0.05	
NOx, ppm	18.1	20.5	18.8	19.2	
NOx, ppm @ 15% O <sub>2</sub>	11.8	13.1	12.3	12.4	
NOx, lbs/hr	2.67	2.99	2.82	2.83	
NOx, lbs/MMBtu	0.048	0.053	0.050	0.050	0.06
CO, ppm	<2.0	<2.0	<2.0	<2.0	
CO, ppm @ 15% O <sub>2</sub>	<1.3	<1.3	<1.3	<1.3	
CO, lbs/hr	< 0.18	< 0.18	< 0.18	< 0.18	
CO, lbs/MMBtu	0.003	0.003	0.003	0.003	0.3
TRS as H <sub>2</sub> S, ppm in Fuel	215	297	315	276	
SO <sub>2</sub> , ppm Exhaust (calculated)	20.6	29.0	29.9	26.5	300
THC, ppm wet (Sum NMOC + $CH_4$ )	<11.1	<11.1	<11.1	<11.1	
THC, ppm dry	<12.5	<12.6	<12.6	<12.6	
THC, lbs/hr as CH <sub>4</sub>	< 0.643	< 0.639	< 0.654	< 0.645	
CH <sub>4</sub> , ppm wet (EPA ALT 097)	<10.0	<10.0	<10.0	<10.0	
CH <sub>4</sub> , ppm dry	<11.3	<11.3	<11.3	<11.3	
CH <sub>4</sub> , lbs/hr	< 0.581	< 0.573	< 0.589	< 0.581	
TNMHC, ppm as CH <sub>4</sub> (EPA ALT 097)	1.07	1.14	1.11	1.10	
TNMHC, ppm dry as CH <sub>4</sub>	1.21	1.29	1.25	1.25	
TNMHC, lbs/hr as CH <sub>4</sub>	0.062	0.065	0.065	0.064	
TNMHC, ppm @ $3\%$ O <sub>2</sub> as CH <sub>4</sub>	2.39	2.50	2.48	2.45	30
INLET TNMOC (EPA M25C)	1,574	1,720	2,033	1,776	or
INLET NMOC lbs/hr as CH <sub>4</sub>	7.7	8.5	10.0	8.8	
NMOC Removal Efficiency	99.20%	99.23%	99.35%	99.26%	98
INLET CH <sub>4</sub> , ppm	473,000	476,000	478,000	475,667	
INLET CH <sub>4</sub> lbs/hr	2,322.5	2,350.3	2,362.5	2,345	
CH <sub>4</sub> Removal Efficiency	>99.97%	>99.98%	>99.98%	>99.98%	99
INLET THC (TOC) ppm as CH <sub>4</sub>	474,574	477,720	480,033	477,442	
INLET THC (TOC) lbs/hr as CH <sub>4</sub>	2,330	2,359	2,373	2,354	
THC (TOC) Removal Efficiency	99.97%	99.97%	99.97%	99.97%	

< Value = 2% of Analyzer Range

#### WHERE,

ppm = Parts per Million Concentration

Lbs/hr = Pound per Hour Emission Rate

Tstd. = Standard Temperature ( ${}^{\circ}R = {}^{\circ}F+460$ )

MW = Molecular Weight

DSCFM = Dry Standard Cubic Feet Per Minute

NOx = Oxides of Nitrogen as NO<sub>2</sub> (MW = 46)

CO = Carbon Monoxide (MW = 28)

 $\mathrm{TOC} = \mathrm{THC} = \mathrm{Total}$  Organic Carbon as Methane including  $\mathrm{CH_4}$  (MW = 16)

THC = Total Hydrocarbons as Methane (MW = 16)

 $\ensuremath{\mathrm{NMOC}}$  = 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 \* 8.223 E-05 \* DSCFM \* MW / Tstd.  $^{\circ}$ R

Lbs/day = Lbs/hr \* 24

Removal Efficiency = (inlet lbs/hr- outlet lbs/hr) / inlet lbs/hr SO<sub>2</sub> emission ppm = H2S in fuel \* Fuel Flow/Stack Gas Flow

# Kirby Canyon Recycling & Disposal Facility Flare A-12

### 1,564°F - Condensate On Landfill Gas Characterization

RUN			R1-LFG-CON	R2-LFG-CON	R3-LFG-CON	AVERAGE
Test Date			2/25/21	2/25/21	2/25/21	-
Acrylonitrile		ppb	<135	<148	<159	<147
Bromodichloromethane		ppb	<33.7	<37.1	<39.7	<36.8
Carbon Tetrachloride		ppb	<33.7	<37.1	<39.7	<36.8
Chlorobenzene		ppb	122	125	123	123
Chlorodifluoromethane		ppb	<33.7	<37.1	<39.7	<36.8
Chloromethane		ppb	<67.4	<74.2	<79.4	<73.7
Chloroethane		ppb	96.3	75.0	78.6	83.3
Chloroform		ppb	<33.7	<37.1	<39.7	<36.8
1,1 Dichloroethane	Ethylidene Dichloride	ppb	<33.7	<37.1	<39.7	<36.8
1,1 Dichloroethene	Vinylidene Chloride	ppb	<33.7	<37.1	<39.7	<36.8
1,2 Dichloroethane	Ethylene Dichloride	ppb	95.0	87.6	80.2	87.6
1,2 Dichloropropane		ppb	<33.7	<37.1	<39.7	<36.8
1,4 Dichlorobenzene		ppb	573	648	664	628
Dichlorodifluoromethane		ppb	75.5	69.8	66.7	70.7
Dichlorofluoromethane		ppb	49.2	<37.1	42.9	43.1
Ethanol		ppb	17,900	18,500	23,100	19,833
Ethylbenzene		ppb	2,360	2,710	2,620	2,563
Ethlyene Dibromide	1,2 Dibromoethane	ppb	<33.7	<37.1	<39.7	<36.8
Fluorotrichloromethane	Trichlorofluoromethane	ppb	<33.7	<37.1	<39.7	<36.8
Hexane		ppb	257	249	238	248
Isopropyl Alcohol	IPA	ppb	4,660	6,270	6,850	5,927
Methyl Ethyl Ketone (MEK)	2-Butanone	ppb	13,200	11,900	12,000	12,367
Methylene Chloride		ppb	<67.4	<74.2	<79.4	<73.7
Methyl isobutyl ketone (MiBK)		ppb	641	575	621	612
Perchloroethylene	Tetrachloroethylene	ppb	62.0	57.2	61.1	60.1
1,1,1 Trichlororethane	•	ppb	<33.7	<37.1	<39.7	<36.8
1,1,2,2 Tetrachloroethane		ppb	<33.7	<37.1	<39.7	<36.8
trans-1,2-Dichloroethane	t-1,2-Dichloroethane	ppb	<33.7	<37.1	<39.7	<36.8
Trichloroethylene	Trichloroethene	ppb	49.2	43.8	46.8	46.6
Vinyl Chloride		ppb	<33.7	<37.1	39.7	36.8
Xylenes		ppb	5,680	6,080	5,710	5,823
Ethane (C <sub>2</sub> )		ppm	<3.4	<3.7	<4.0	<3.7
Propane (C <sub>3</sub> )		ppm	11.5	11.7	12.3	11.8
Butane (C <sub>4</sub> )		ppm	5.4	6.3	6.9	6.2
Pentane (C <sub>5</sub> )		ppm	10.0	12.0	14.5	12.2
Carbon Disulfide		ppm	< 0.067	< 0.074	< 0.079	< 0.073
Carbonyl Sulfide		ppm	0.410	0.541	0.215	0.389
Dimethyl Sulfide		ppm	1.92	1.95	1.94	1.94
Ethyl Mercaptan		ppm	0.103	0.106	0.121	0.110
Methyl Mercaptan		ppm	2.33	2.81	3.14	2.76
Hydrogen Sulfide		ppm	208	289	306	268
TRS as H2S		ppm	215	297	315	276

### Kirby Canyon Recycling & Disposal Facility Flare A-12

### 1,564°F - Condensate OFF

RUN	1	2	3	AVERAGE	LIMITS
Test Date	2/25/21	2/25/21	2/25/21		
Test Time	1137-1213	1236-1311	1337-1412		
Standard Temperature, °F	70	70	70		
Flare Temperature, °F Average	1,563	1,564	1,564	1,564	
Condensate Injection, gpm	0.00	0.00	0.00	0.00	
Fuel Flow Rate, SCFM	1,996	2,013	2,027	2,012	
Fuel Heat Input, MMBtu/hr	57.4	57.9	54.0	56.4	
Exhaust Flow Rate, DSCFM (EPA M19)	22,088	22,092	20,238	21,472	
Oxygen, O <sub>2</sub> , %	12.25	12.16	12.01	12.14	
Carbon Dioxide, CO <sub>2</sub> , %	7.66	7.78	7.90	7.78	
Water Vapor, H <sub>2</sub> O, % (EPA M4.16)	8.22	8.31	8.45	8.33	
NO, ppm	14.9	15.0	14.8	14.9	
$NO_2$ , ppm	<1.0	<1.0	<1.0	<1.0	
NO <sub>2</sub> /NO	< 0.07	< 0.07	< 0.07	< 0.07	
NOx, ppm	14.6	14.5	14.5	14.5	
NOx, ppm @ 15% O <sub>2</sub>	9.9	9.8	9.6	9.8	
NOx, lbs/hr	2.30	2.29	2.09	2.23	
NOx, lbs/MMBtu	0.040	0.040	0.039	0.039	0.06
CO, ppm	3.3	<2.0	2.1	2.5	
CO, ppm @ 15% O <sub>2</sub>	2.3	<1.4	1.4	1.7	
CO, lbs/hr	0.32	< 0.19	0.18	0.23	
CO, lbs/MMBtu	0.006	< 0.003	0.003	0.004	0.30
TRS as H <sub>2</sub> S, ppm in Fuel	364	354	313	344	
SO <sub>2</sub> , ppm Exhaust (calculated)	32.9	32.3	31.3	32.2	300
THC, ppm wet (Sum NMOC + CH <sub>4</sub> )	<11.2	<11.3	<11.0	<11.1	
THC, ppm dry	<12.2	<12.3	<12.0	<12.2	
THC, lbs/hr as CH <sub>4</sub>	< 0.67	< 0.67	< 0.60	< 0.65	
CH <sub>4</sub> , ppm wet (EPA ALT 097)	<10.0	<10.0	<10.0	<10.0	
CH <sub>4</sub> , ppm dry	<10.9	<10.9	<10.9	<10.9	
CH <sub>4</sub> , lbs/hr	< 0.55	< 0.55	< 0.50	< 0.53	
TNMHC, ppm as CH <sub>4</sub> (EPA ALT 097)	1.19	1.26	<1.00	1.15	
TNMHC, ppm dry as CH <sub>4</sub>	1.29	1.37	<1.09	1.25	
TNMHC, lbs/hr as CH <sub>4</sub>	0.065	0.069	< 0.050	0.062	
TNMHC, ppm @ 3% O <sub>2</sub> as CH <sub>4</sub>	2.46	2.58	<2.0	2.35	30
INLET TNMOC (EPA M25C)	2,017	1,995	1,902	1,971	or
INLET NMOC lbs/hr as CH <sub>4</sub>	10.0	10.0	9.6	9.8	OI
NMOC Removal Efficiency	99.35%	99.31%	99.48%	99.38%	98
INLET CH <sub>4</sub> , ppm	480,000	481,000	445,000	468,667	
INLET CH <sub>4</sub> lbs/hr	2,378.4	2,403.6	2,239.2	2,340	
CH <sub>4</sub> Removal Efficiency	>99.98%	>99.98%	>99.98%	>99.98%	99
INLET THC (TOC) ppm as CH <sub>4</sub>	482,017	482,995	446,902	470,638	
INLET THC (TOC) lbs/hr as CH <sub>4</sub>	2,388	2,414	2,249	2,350	
THC (TOC) Removal Efficiency	99.97%	99.97%	99.97%	99.97%	

< Value = 2% of Analyzer Range

#### WHERE,

ppm = Parts per Million Concentration

Lbs/hr = Pound per Hour Emission Rate

Tstd. = Standard Temperature ( ${}^{\circ}R = {}^{\circ}F+460$ )

MW = Molecular Weight

DSCFM = Dry Standard Cubic Feet per Minute

NOx = Oxides of Nitrogen as NO<sub>2</sub> (MW = 46)

CO = Carbon Monoxide (MW = 28)

 $\mathrm{TOC} = \mathrm{THC} = \mathrm{Total}$  Organic Carbon as Methane including  $\mathrm{CH_4}$  (MW = 16)

THC = Total Hydrocarbons as Methane (MW = 16)

 $\ensuremath{\mathrm{NMOC}}$  = 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 \* 8.223 E-05 \* DSCFM \* MW / Tstd.  $^{\circ}$ R

Lbs/day = Lbs/hr \* 24

Removal Efficiency = (inlet lbs/hr- outlet lbs/hr) / inlet lbs/hr SO<sub>2</sub> emission ppm = H2S in fuel \* Fuel Flow/Stack Gas Flow

# Kirby Canyon Recycling & Disposal Facility Flare A-12

### 1,564°F - Condensate OFF Landfill Gas Characterization

RUN			R1-LFG-COFF	R2-LFG-COFF	R3-LFG-COFF	AVERAGE
Test Date			2/25/21	2/25/21	2/25/21	-
Acrylonitrile		ppb	<162	<159	<151	<157
Bromodichloromethane		ppb	<40.4	<39.7	<37.7	<39.3
Carbon Tetrachloride		ppb	<40.4	<39.7	<37.7	<39.3
Chlorobenzene		ppb	110	107	106	108
Chlorodifluoromethane		ppb	<40.4	<39.7	<37.7	<39.3
Chloromethane		ppb	<80.8	<79.4	<75.3	<78.5
Chloroethane		ppb	82.4	57.2	86.6	75.4
Chloroform		ppb	<40.4	<39.7	<37.7	<39.3
1,1 Dichloroethane	Ethylidene Dichloride	ppb	<40.4	<39.7	<37.7	<39.3
1,1 Dichloroethene	Vinylidene Chloride	ppb	<40.4	<39.7	<37.7	<39.3
1,2 Dichloroethane	Ethylene Dichloride	ppb	79.2	79.4	76.1	78.2
1,2 Dichloropropane		ppb	<40.4	<39.7	<37.7	<39.3
1,4 Dichlorobenzene		ppb	580	581	551	571
Dichlorodifluoromethane		ppb	63.8	66.7	63.3	64.6
Dichlorofluoromethane		ppb	40.4	<39.7	<37.7	<39.3
Ethanol		ppb	23,200	23,200	19,800	22,067
Ethylbenzene		ppb	2,440	2,440	2,350	2,410
Ethlyene Dibromide	1,2 Dibromoethane	ppb	<40.4	<39.7	<37.7	<39.3
Fluorotrichloromethane	Trichlorofluoromethane	ppb	<40.4	<39.7	<37.7	<39.3
Hexane		ppb	236	219	216	224
Isopropyl Alcohol	IPA	ppb	7,020	6,760	5,940	6,573
Methyl Ethyl Ketone (MEK)	2-Butanone	ppb	12,300	12,800	10,800	11,967
Methylene Chloride		ppb	<80.8	<79.4	<75.3	<78.5
Methyl isobutyl ketone (MiBK)		ppb	585	569	511	555
Perchloroethylene	Tetrachloroethylene	ppb	53.3	52.4	49.0	51.6
1,1,1 Trichlororethane		ppb	<40.4	<39.7	<37.7	<39.3
1,1,2,2 Tetrachloroethane		ppb	<40.4	<39.7	<37.7	<39.3
trans-1,2-Dichloroethane	t-1,2-Dichloroethane	ppb	<40.4	<39.7	<37.7	<39.3
Trichloroethylene	Trichloroethene	ppb	42.0	41.3	<37.7	40.3
Vinyl Chloride		ppb	<40.4	<39.7	37.7	39.3
Xylenes		ppb	5,410	5,410	5,090	5,303
Ethane (C <sub>2</sub> )		ppm	<4.0	<4.0	<3.8	<3.9
Propane (C <sub>3</sub> )		ppm	12.0	12.0	10.7	11.6
Butane (C <sub>4</sub> )		ppm	6.7	6.8	5.6	6.4
Pentane (C <sub>5</sub> )		ppm	25.7	14.8	29.5	23.3
Carbon Disulfide		ppm	< 0.081	< 0.079	< 0.075	< 0.078
Carbonyl Sulfide		ppm	0.301	0.343	0.341	0.328
Dimethyl Sulfide		ppm	1.95	1.99	1.73	1.89
Ethyl Mercaptan		ppm	0.174	0.259	0.164	0.199
Methyl Mercaptan		ppm	3.30	3.47	3.17	3.31
Hydrogen Sulfide		ppm	354	344	304	334
TRS as H2S		ppm	364	354	313	344

### **APPENDIX P**

### A-12 FLARE 12-MONTH SULFUR DIOXIDE EMISSIONS LOG

# 12-MONTH CONSECUTIVE SOx Emission Rate (Tons/Year) :2020-2021 Kirby Canyon Recycling & Disposal Facility

**Plant #1812, Condition 1437 Item 20** 

Month	SO <sub>2</sub> (Tons/Month)	SO <sub>2</sub> (12- Months Tons)
July-20	2.2	33.7
August-20	2.1	33.0
September-20	2.1	32.2
October-20	2.0	31.5
November-20	2.0	30.8
December-20	2.2	30.0
January-21	2.1	28.8
February-21	2.0	27.7
March-21	2.2	26.7
April-21	2.3	26.0
May-21	2.3	25.5
June-21	2.4	25.8

Pursuant to Title V Permit A1812, Condition Number 25301 Part 20, the Sulfur dioxide emissions from Flare A-12 shall not exceed 300 ppmv of SO2 and sulfur dioxide emissions from A-12 shall not exceed 94.9 tons per year.

To demonstrate compliance with above limits, the site will conduct annual testing of total TRS at the landfill gas main header. The most recent TRS value will be used to calculate the monthly SO2 emissions in tons.

Appendix P includes table with  $SO_2$  12-month tons during the reporting period. The sulfur dioxide emissions from A-12 did not exceed 94.9 tons per year.