2 COMBINED MONITORING REPORT

In accordance with Title V Permit Standard Condition 1.F, BAAQMD Rule 8-34-411 and §60.757(f) in the NSPS, this report is a Combined Semi-Annual Title V Report and Partial 8-34 Annual Report that is required to be submitted by Ox Mountain Landfill. The report contains monitoring data for the operation of the landfill gas collection and control system (GCCS). The operational records have been reviewed and summarized. The timeframe included in this report is October 1, 2012 through March 31, 2013. The following table lists the rules and regulations that are required to be included in this Combined Report.

TABLE 2-1 COMBINED REPORT REQUIREMENTS

RULE	REQUIREMENT	LOCATION IN REPORT
8-34-501.1 §60.757(f)(4)	All collection system downtime, including individual well shutdown times and the reason for the shutdown.	Section 2.1, Appendices C & D
8-34-501.2 §60.757(f)(3)	All emission control system downtime and the reason for the shutdown.	Section 2.2, Appendix D
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 E
8-34-501.4, 8-34-505, 8-34-510	Testing performed to satisfy any of the requirements of this rule.	Section 2.4 & 2.10 Appendices F & J
8-34-501.6, 8-34-503, 8-34-506, §60.757(f)(5)	For operations subject to Section 8-34-503 and 8-34-506, records of all monitoring dates, leaks in excess of the limits in Section 8-34-301.2 or 8-34-303 that are discovered by the operator, including the location of the leak, leak concentration in parts per million by volume (ppmv), date of discovery, the action taken to repair the leak, date of the repair, date of any required re-monitoring, and the re-monitored concentration in ppmv.	Section 2.6 & 2.7, Appendices G & H
8-34-501.7	Annual waste acceptance rate and current amount of waste in-place.	Section 2.8, Appendix I
8-34-501.8	Records of the nature, location, amount, and date of deposition of non-degradable wastes, for any landfill areas excluded from the collection system requirement as documented in the GCCS Design Plan.	Section 2.9
8-34-501.9, 8-34-505, §60.757(f)(1)	For operations subject to Section 8-34-505, records of all monitoring dates and any excesses of the limits stated in Section 8-34-305 that are discovered by the operator, including well identification number, the measured excess, the action taken to repair the excess, and the date of repair.	Section 2.10, 2.10.1, Appendices J & K
8-34-501.10, 8-34-508, §60.757(f)(1)	Continuous gas flow rate records for any site subject to Section 8-34-508.	Section 2.11, Appendices E and L
8-34-501.11, 8-34-509	For operations subject to Section 8-34-509, records or key emission control system operating parameters.	Section 2.2.2
8-34-501.12	The records required above shall be made available and retained for a period of 5 years.	Section 1.2
§60.757(f)(1)	Value and length of time for exceedance of parameters monitored per §60.756(a), (b), or (d).	Section 2.3
§60.757(f)(2)	Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756.	Section 2.2.1

§60.757(f)(3)	Description and duration of all periods when control devices were not operating for more than 1 hour §60.756.	Section 2.2
§60.757(f)(4)	All periods when collection system was not operating for more than 5 days.	Section 2.1
§60.757(f)(5)	Location of each surface emission excess and all re-monitoring dates and concentration.	Section 2.6
§60.757(f)(6)	The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), (c)(4) of §60.755.	Section 2.12, Appendices A & C
§63.10(d)(5)	Startup, Shutdown, Malfunction Events	Section 4.0, Appendices C & D

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

Appendix A contains a current map of Ox Mountain's existing GCCS. Section 2.1.1 includes the GCCS downtime for the reporting period. The information contained in Appendix C includes the individual well shutdown times and the reason for the shutdown.

2.1.1 Collection System Downtime

During the period covered in this report, the GCCS was not shut down for more than 5 days on any one occasion. The downtime for the reporting period of October 1, 2012 through March 31, 2013 was 17.93 hours. The total downtime for the 2012 calendar year was 51.40 hours out of an allowable 240 hours per year.

Appendix D contains the A-7, A-8, and A-9 Flares and the Ameresco Internal Combustion (IC) engines Downtime Reports which list dates, times, and lengths of shutdowns for the reporting period and year-to-date. Appendix E contains the GCCS Downtime.

2.1.2 Well Start-Up & Disconnection Log

There were 12 wellfield SSM events that occurred during the reporting period. See Appendix C, Wellfield SSM Log for details of well disconnection and reconnection events. There were two (2) wells decommissioned during the reporting period pursuant to Permit Condition 10164, Part 17b(i). Well Decommissioning Notification Letters that were prepared by Republic and submitted to the BAAQMD are included in Appendix B.

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

The emission control system consists of three (3) flares (A-7, A-8, and A-9), which all began operation in 2004 and the six (6) IC Engines operated by Ameresco. The 6 IC Engines are under a separate permit and are reported by others. The control system was not bypassed at any time during the reporting period. Raw LFG was not emitted during the reporting period. The SSM logs for the A-7, A-8, and A-9 Flares and the IC Engines are located in Appendix D.

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

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

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

BAAQMD Regulation 8-34-501.11 and 8-34-509 are not applicable to the A-7, A-8, and A-9 Flares because the A-7, A-8, and A-9 Flares are subject to continuous temperature monitoring as required in BAAQMD Regulation 8-34-507 and §60.757(f)(1).

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

The combustion zone temperatures of the flares are monitored with Thermo-Electric Thermocouples. The temperature is displayed with a Yokogawa digital recorder, which is downloaded and archived. There were no temperature deviations during the reporting period. Appendix F contains the Flare Temperature Deviation/ Inoperative Monitor/ Missing Data Reports for October 1, 2012 through March 31, 2013.

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

The cover integrity monitoring was performed on the following dates:

- October 24, 2012
- November 6, 2012
- December 4, 2012
- January 8, 2013
- February 12, 2013
- March 11, 2013

The Monthly Cover Integrity Monitoring Logs are included in Appendix G.

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

Ox Mountain 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) & California Code of Regulations (CCR) §95469(a))

Field Solutions, Inc. (Field Solutions) completed the Third Quarter 2012, Fourth Quarter 2012, and the First Quarter 2013 Instantaneous and Integrated Surface Emission Monitoring (SEM) events and RMC Geoscience, Inc. (RMC) submitted the Third Quarter 2012, Fourth Quarter 2012, and First Quarter 2013 SEM Reports to Republic. Refer to the Third Quarter 2012, Fourth Quarter 2012, and First Quarter 2013 SEM Reports, located in Appendix H, for detailed results.

2.7 Component Leak Testing (BAAQMD 8-34-501.6 & 8-34-503, CCR §95465(b)(1)(B))

Quarterly component leak testing, pursuant to BAAQMD Regulation 8-34-301.2 and CARB §95465(b)(1)(B), occurred during the reporting period on the following dates:

- Fourth Quarter 2012 – October 26, 2012
- First Quarter 2013 – January 25 and 30, 2013

No exceedances were detected. Refer to the Quarterly LFG Component Leak Monitoring Reports, located in Appendix I, for detailed results.

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

The Annual Waste Acceptance Rate was compiled for the timeframe of October 1, 2012 through March 31, 2013. The amount of waste accepted during the reporting period was approximately 310,137 tons. The current Waste-In-Place as of March 31, 2013 is approximately 22,645,323 tons.

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

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

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

Wellhead monitoring was performed on a monthly basis pursuant to 8-34-505. The well readings for October 1, 2012 through March 31, 2013 are included in Appendix J. Each well was monitored in accordance with the following requirements:

- 8-34-305.1 – Each wellhead shall operate under a vacuum;

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

Wellhead monitoring was performed on the following dates:

- October 2, 9, 11, 12, 18, 19, 23, and 24, 2012
- November 7, 8, 9, 12, 19, 20, 21, and 27, 2012
- December 7, 11, 19, 20, and 27, 2012
- January 8, 9, 10, 14, 22, 23, 29, and 30, 2013
- February 5, 12, 14, 15, 20, 21, 22, and 26, 2013
- March 5, 12, 13, 20, 21, 26, 27, and 28, 2013

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

There were 10 wells with readings that exceeded the limits set forth in BAAQMD Regulation 8-34-305 during the reporting period. Corrective action was initiated within the required 5-day time period and re-monitoring was completed within 15 days of the deviation pursuant to BAAQMD Regulation 8-34-414. See Appendix K, Wellfield Deviation Log, for further details.

2.10.2 Higher Operating Value (HOV) Wells

As of March 31, 2013, the following wells are approved to operate at a HOV for oxygen pursuant to Permit Condition 10164 Part 18b(i):

Oxygen HOV Wells

Pursuant to Permit Condition 10164, Part 18(b)(i), the oxygen concentration limit does not apply to the wells listed below, provided that the oxygen concentration in the LFG at the main header does not exceed fifteen percent oxygen by volume (dry basis): EW-W04, EW-W10, EW-W13, EW-W17, EW-W38, EW-PEW01, EW-PEW02, EW-PEW03, EW-PEW04, EW-PEW06, EW-W-1-L, and HC-F06.

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

The LFG flow rate is measured with a flow meter. The General Electric data panel displays the LFG flow and the digital Yokogawa data recorder records LFG flow every minute and is downloaded and saved to a compact flash card. The flow meter at each flare meets the requirements of BAAQMD Regulation 8-34-508 by recording data at least every 15

minutes. The flow meter is maintained and calibrated pursuant to manufacturer's recommendations. The flow data for each flare is available for review at Ox Mountain. Appendix L contains a summary of the monthly LFG flow rates for the flares. Appendix F contains the Flare Temperature Deviation/ Inoperative Monitor/ Missing Data Report for October 1, 2012 through March 31, 2013. There were no issues during this reporting period. Table 2-2 below is a summary of the total LFG flow for the reporting period of October 1, 2012 through March 31, 2013.

TABLE 2-2 TOTAL LFG FLOW FOR OCTOBER 1, 2012 THROUGH MARCH 31, 2013

A-7	973.5	54.9	86,591,391.5	95,417,894.0	47,096,690.0
A-8	1,212.0	54.4	205,282.0	231,117.2	114,075.6
A-9	2,535.1	52.0	5,006,381.0	5,228,096.5	2,580,501.7

*CH_4 content was determined from their respective inlet locations. CH_4 concentrations determined during the annual source test will be used in lieu of monthly averages when weekly CH_4 concentrations are negligible due to monitoring conducted while devices are offline.
scfm = standard cubic feet per minute
CH_4 = methane
scf = standard cubic feet
MMBTU = million British thermal units

2.12 Compliance with §60.757(f)(6)

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

The GCCS was modified pursuant to Title V Permit Number A2266 during the reporting period.

There were 2 wells decommissioned during the reporting period pursuant to Permit Condition 10164, Part 17b(i). Well Decommissioning Notification Letters that were prepared by Republic and submitted to the BAAQMD are included in Appendix B.

Permit Condition 10164, Part 17b(i) allows for the replacement of an unlimited number of vertical wells, installation of up to 59 new vertical wells, installation of up to 19 new horizontal collectors, the decommissioning of up to 49 vertical wells, and the decommissioning of up to 10 horizontal collectors.

As of March 31, 2013, Ox Mountain consists of 144 vertical wells, 9 horizontal collectors, 1 leachate collection riser, and 1 trench collector.

2.13 Compliance with Title V Permit Condition Number 10164, Part 5

The unpaved segment of road extending from the end of the paved haul road to the working face does not exceed the 1,200 foot length limit.

2.14 Compliance with Title V Permit Condition Number 10164, Part 6

No vehicles exceeded the 10 mile per hour speed limit on the unpaved roads.

2.15 Compliance with Title V Permit Condition Number 10164, Part 7

All unpaved roads (excluding limited use access roads) were treated with 10 percent magnesium chloride dust suppressant solution at a rate of at least once per calendar month. During October 2012 through March 2013, dust suppressant was applied after any dry period consisting of 30 consecutive days with less than 0.09 inches of rain per day. In addition, water was applied to all unpaved roads at least four times per working day. The watering schedule was reduced during periods of sufficient precipitation to minimize dust emissions.

2.16 Compliance with Title V Permit Condition Number 10164, Part 8

All paved roadways were swept and washed down at least twice per week or as necessary to maintain a clean road surface.

2.17 Compliance with Title V Permit Condition Number 10164, Part 9

On-site vehicle traffic volume did not exceed the number of round trips described in Table 2-3 during any one day:

TABLE 2-3 ON-SITE VEHICLE TRAFFIC VOLUME

VEHICLE TYPE	DAILY ROUND TRIP LIMITS
Transfer Trucks	178
Packer Trucks	52
Water Trucks	36
Soil Trucks	200
Misc. Heavy Equipment	60
Light Duty Vehicles	250

2.18 Compliance with Title V Permit Condition Number 10164, Part 10

Except for the vehicles listed in Table 2-4, the on-site one way distance traveled by any heavy-duty vehicle (on paved roads only) did not exceed 8,000 feet. This limitation does not apply to the vehicles listed in Table 2-4, which may travel up to a maximum of 11,700 feet (one-way distance) on paved roads:

TABLE 2-4 VEHICLE TRAFFIC

Water Trucks	36
Fuel Trucks	2
Employee Light-Duty Vehicles	20

2.19 Compliance with Title V Permit Condition Number 10164, Part 13

No contaminated soil containing volatile organic compound (VOC) concentrations greater than 50 ppmv was received during this reporting period. VOC-laden soil (containing less than 50 ppmv of VOCs) was received during this reporting period. The total VOC-laden soil placed did not exceed the 118.75 ton daily limit or the 31,800 ton yearly limit.

2.20 Compliance with Title V Permit Condition Number 16315 for S-12 Stockpile of Green Waste

Appendix O contains monthly records of the amount of yard and green waste received for this reporting period. These records are maintained at Ox Mountain and are available upon request.

2.21 Compliance with Title V Permit Condition Number 7523 and 16516 for S-5 Non-Retail Gasoline Dispensing Facility G#8524

Pursuant to Title V Permit Condition Number 7523 and Regulation 2-5, the facility's annual gasoline throughput did not exceed the 400,000 gallon (gal) limit in any consecutive 12-month period. Monthly gasoline throughput totals for the reporting period are included in Appendix P. These records are maintained at Ox Mountain and can be made available upon request.

Pursuant to Title V Permit Condition Number 16516, the Static Pressure Performance Test (Leak Test) for ST-38 was performed on December 18, 2012. The Static Pressure Performance Test results are included in Appendix I of this report.

4 START-UP, SHUTDOWN, MALFUNCTION (SSM) PLAN

4.1 SSM Log for the GCCS at Ox Mountain

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

NESHAP 40 CFR part 63, AAAA became effective on January 16, 2004. Those SSM events that occurred during the NSPS semi-annual reporting period are reported in this section (October 1, 2012 through March 31, 2013). The following information is included as required:

- During the reporting period, 61 A-7 Flare SSM events occurred. The A-7 Flare was shut down and restarted during the reporting period due to the reasons noted in Appendix D, Flare SSM Log.
- During the reporting period, four (4) A-8 Flare SSM events occurred. The A-8 Flare was shut down and restarted during the reporting period due to the reasons noted in Appendix D, Flare SSM Log.
- During the reporting period, 25 A-9 Flare SSM events occurred. The A-9 Flare was shut down and restarted during the reporting period due to the reasons noted in Appendix D, Flare SSM Log.
- During the reporting period, 12 Wellfield SSM events occurred. Details are included in Appendix C, Well SSM Log.
- There were 102 events in total. In all 102 events, automatic systems and operator actions were consistent with the standard operating procedures contained in the SSM Plan. There were no deviations from the SSM plan.
- Exceedances were not identified during the reporting period in any applicable emission limitation in the landfills NESHAP (§63.10(d)(5)(i)).
- Revisions of the SSM Plan to correct deficiencies in the landfill operations or procedures were neither required, nor prepared (§63.6(e)(3)(viii)).