April 1, 2019
File No. 01207310.00, Task 51

Part 71 Contact
c/o Colin Schwartz
Air Program (8P-AR)
EPA Region 8
1595 Wynkoop Street
Denver, CO 80202-1129
Ph: 303-312-6043

Subject: **Title V 2018 Annual Emissions Fee Calculation**
Tekoi Landfill, Tooele County, Utah
Permit No. (V-SV-000001-2016.00)

Dear Mr. Schwartz:

On behalf of CR Group, LLC, SCS Engineers (SCS) is submitting the required forms and supporting documentation for payment of the 2018 Title V annual fees for the Tekoi Landfill located in Tooele County, Utah. This submittal is intended to satisfy the applicable requirement of the Clean Air Act (CAA) Title V regulations (40 Code of Federal Regulations (CFR), Part 71).

SCS has completed the enclosed U.S. Environmental Protection Agency (EPA) Fee Calculation Worksheet (Form FEE) to determine the facility's annual fee of $834.40 for calendar year 2018. We have used the 2019 fee rate of $52.81 per ton to determine the 2018 fees. Per Instructions for Form FEE, tables with emissions calculations are attached to Form FEE (**Attachment A**).

A Certification of Truth, Accuracy, and Completeness (CTAC) is included in this submittal, and has been signed by a responsible official from CR Group, LLC. Please note a request was submitted to you on March 29, 2019, to designate Mr. Mark Franc, Senior District Manager, as the alternate responsible official. You subsequently approved the request, and as such, the CTAC included with this submittal was signed by Mr. Franc. A check for the fee amount has been submitted, along with a completed EPA Fee Filing Form (Form FF) (**Attachment B**), to the address indicated in the Form FF instructions. A copy of the completed Form FF, as well as a photocopy of the check, is attached per Instructions for Form FEE.

If you have any questions regarding this submittal or require any additional information, please contact the undersigned at (707) 546-9461.

Sincerely,

Haley DeLong
Staff Professional
SCS Engineers

Michael O'Connor, CAPP
Project Manager
SCS Engineers

Attachments:
A – Form FEE and Emissions Calculations
B – Form FF and Check Copy

cc: U.S. Bank
Government Lockbox 979078
US EPA FOIA & Misc. Payments
1005 Convention Plaza
Mail Station SL-MO-C2-GL
St. Louis, MO 63101
Contact: Natalie Pearson (U.S. Bank)
314-418-4087

Mark Franc, CR Group, LLC – electronic copy
Doc Nyiro, CR Group, LLC – electronic copy
Aaron Smith, CR Group, LLC – electronic copy

ATTACHMENT A

FORM FEE AND EMISSIONS CALCULATIONS

United States Environmental Protection Agency

OMB No. 2060-0336,
Approval Expires 05/31/2019

Federal Operating Permit Program (40 CFR Part 71)
FEE CALCULATION WORKSHEET (FEE)

Use this form initially, or thereafter on an annual basis, to calculate part 71 fees.

A. General Information

Type of fee (Check one): ___Initial _X_Annual

Deadline for submitting fee calculation worksheet __4__/ 1 / 2019

For initial fees, emissions are based on (Check one):

___ Actual emissions for the preceding calendar year. (Required in most circumstances.)

___ Estimates of actual emissions for the current calendar year. (Required when operations commenced during the preceding calendar year.)

Date commenced operations ____/____/_____

___ Estimates of actual emissions for the preceding calendar year. (Optional after a part 71 permit was issued to replace a part 70 permit, but only if initial fee payment is due between January 1 and March 31; otherwise use actual emissions for the preceding calendar year.)

For annual fee payment, you are required to use actual emissions for the preceding calendar year.

B. Source Information: Complete this section only if you are paying fees but not applying for a permit.

Source or facility name Tekoi Landfill

Mailing address: Street or P.O. Box 6976 West California Avenue

City Salt Lake City State UT ZIP 84104 - _____

Contact person Mark Franc Title Senior District Manager

Telephone (801) 726 - 7052 Ext_____ Part 71 permit no. V-SV-000001-2016.00

C. Certification of Truth, Accuracy and Completeness: Only needed if not submitting a separate form CTAC.

I certify under penalty of law, based on information and belief formed after reasonable inquiry, the statements and information contained in this submittal (form and attachments) are true, accurate and complete.

Name (signed) **SEE ATTACHED CTAC FORM**

Name (typed) _____ Date:____ /____ /_____

D. Annual Emissions Report for Fee Calculation Purposes -- Non-HAP

You may use this to report actual emissions (tons per year) of regulated pollutants (for fee calculation) on a calendar-year basis for both initial and annual fee calculation purposes. Section E is designed to report HAP emissions. Quantify all actual emissions, including fugitives, but do not include insignificant emissions and certain regulated air pollutants that are not counted for fee purposes, such as CO and GHGs (see instructions). Sum the emissions in each column to calculate subtotals. Subtotals should be reported to the nearest tenth (0.1) of a ton at the bottom of the page. If any subtotal exceeds 4,000 tons, enter 4,000 for that column.

This data is for 2018 (year)

Emission Unit ID	NOx	VOC	SO2	PM_{10}	Lead	Other
E1	NA	4.8	NA	NA	NA	
E2	NA	NA	NA	8.1	NA	
E3	0.6	0.0	0.1	0.0	NA	
SUBTOTALS:	0.6	4.8	0.1	8.1	NA	

E. Annual Emissions Report for Fee Calculation Purposes -- HAP

HAP Identification. Identify individual HAP emitted at the facility, identify the CAS number, and assign a unique identifier for use in the second table in this section. Whenever assigning identifier codes, use "HAP1" for the first, "HAP2" for the second, and so on.

Name of HAP	CAS No	Identifier
1,1,1-Trichloroethane (methyl chloroform)	71-55-6	HAP1
1,1,2,2-Tetrachloroethane	79-34-5	HAP2
1,1-Dichloroethane (ethylidene dichloride)	75-34-3	HAP3
1,1-Dichloroethene (vinylidene chloride)	75-35-4	HAP4
1,2-Dichloroethane (ethylene dichloride)	107-06-2	HAP5
1,2-Dichloropropane (propylene dichloride)	78-87-5	HAP6
Acrylonitrile	107-13-1	HAP7
Benzene	71-43-2	HAP8
Carbon disulfide	75-15-0	HAP9
Carbon tetrachloride	56-23-5	HAP10
Carbonyl sulfide	463-58-1	HAP11
Chlorobenzene	108-90-7	HAP12
Chloroethane (ethyl chloride)	75-00-3	HAP13
Chloroform	67-66-3	HAP14
Chloromethane (methyl chloride)	74-87-3	HAP15
Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	HAP16
Dichloromethane (Methylene Chloride)	75-09-2	HAP17
Ethylbenzene	100-41-4	HAP18
Ethylene dibromide (1,2-Dibromoethane)	106-93-4	HAP19
Hexane	110-54-3	HAP20
Mercury (total)	7439-97-6	HAP21
Methyl isobutyl ketone	108-10-1	HAP22
Perchloroethylene (tetrachloroethylene)	127-18-4	HAP23
Toluene	108-88-3	HAP24
Trichloroethylene (trichloroethene)	79-01-6	HAP25
Vinyl chloride	75-01-4	HAP26
Xylenes	1330-20-7	HAP27

HAP Emissions. Report the actual emissions of individual HAP identified above. Use the identifiers assigned in the table above. Include all emissions, including fugitives, and do not include insignificant emissions. Sum the emissions in each column to calculate subtotals. Report subtotals to the nearest tenth (0.1) of a ton at the bottom of the page. If any subtotal exceeds 4,000 tons, enter 4,000.

This data is for ___2018__ (year)

Emissions Unit ID	Actual Emissions (Tons/Year)							
	HAP___	HAP___	HAP___	HAP___	HAP___	HAP___	HAP___	HAP___
E1	Please see Table 2 (attached) for individual HAP emissions.							
SUBTOTALS:	Total HAP emissions = 2.2 tons							

F. Fee Calculation Worksheet

This worksheet is used to calculate the total fee owed (including the emissions-based fee and the GHG fee adjustment) for both initial and annual fee payment purposes. Reconciliation is only for cases where you are paying the annual fee and you used any type of estimate of actual emissions when you calculated the initial fee. If you do not need to reconcile fees, complete line 1-5 (emissions summary) and then skip down to line 21 (emission calculation). See instructions for more detailed explanation.

EMISSIONS SUMMARY

1. Sum the subtotals from section D of this form (non-HAP) and enter the total, rounded to the nearest tenth (0.1) of a ton.	13.6
2. Sum the subtotals from section E of this form (HAP) and enter the total, rounded to the nearest tenth (0.1) of a ton.	2.2
3. Sum lines 1 and 2.	15.8
4. Enter the emissions that were counted twice. If none, enter "0."	0
5. Subtract line 4 from line 3, round to the nearest ton, and enter the result here. This is the **total emissions** that count for fees purposes.	15.8

RECONCILIATION
(WHEN INITIAL FEES WERE BASED ON ESTIMATES FOR THE "CURRENT" CALENDAR YEAR)

Only complete lines 6-10 if you are paying the first annual fee and initial fees were based on estimated actual emissions for the calendar year in which you paid initial fees; otherwise skip to line 11 or to line 21.

6. Enter the total estimated actual emissions for the year the initial fee was paid (previously reported on line 5 of the initial fee form).	
7. If line 5 is greater than line 6, subtract line 6 from line 5, and enter the result. Otherwise enter "0."	
8. If line 6 is greater than line 5, subtract line 5 from line 6, and enter the result. Otherwise enter "0."	
9. If line 7 is greater than 0, multiply line 7 by last year's fee rate ($/ton) and enter the result here. This is the underpayment. Go to line 21.	
10. If line 8 is greater than 0, multiply line 8 by last year's fee rate ($/ton) and enter the result here. This is the overpayment. Go to line 21.	

RECONCILIATION
(WHEN INITIAL FEES WERE BASED ON ESTIMATES FOR THE "PRECEDING" CALENDAR YEAR)

Only complete lines 11-20 if you are paying the first annual fee and initial fees were based on estimated actual emissions for the calendar year preceding initial fee payment; otherwise skip to line 21. If completing this section, you will also need to complete sections D and E to report actual emissions for the calendar year preceding initial fee payment.

11. Sum the actual emissions from section D (non-HAP) for the calendar year preceding initial fee payment and enter the result here.	
12. Sum the actual emissions from section E (HAP) for the calendar year preceding initial fee payment and enter the result here.	
13. Add lines 11 and 12 and enter the total here. These are total actual emissions for the calendar year preceding initial fee payment.	
14. Enter double counted emission from line 13 here. If none, enter "0."	
15. Subtract line 14 from line 13, round to the nearest ton, and enter the result here.	
16. Enter the total estimated actual emissions previously reported on line 5 of the initial fee form. These are estimated actual emissions for the calendar year preceding initial fee payment.	
17. If line 15 is greater than line 16, subtract line 16 from line 15, and enter the result here. Otherwise enter "0."	
18. If line 16 is greater than line 15, subtract line 15 from line 16, and enter the result here. Otherwise enter "0."	
19. If line 17 is greater than 0, multiply line 17 by last year's fee rate ($/ton) and enter the result here. This is the underpayment.	
20. If line 18 is greater than 0, multiply line 18 by last year's fee rate ($/ton) and enter the result on this line. This is the overpayment.	
EMISSION FEE CALCULATION	
21. Multiply line 5 (tons) by the current fee rate ($/ton) and enter the result here. This is the unadjusted emissions fee. Continue on to line 23.	$834.40
GHG FEE ADJUSTMENT	
22. If you are submitting an initial permit application and this is the first time you are paying fees, enter $2,236, otherwise enter "0". [Note that any updates to the initial application are covered under this one-time charge.]	0
23. Enter the number of permit modifications (or related permit actions) you have submitted to the permitting authority since you last paid fees. If none, skip to line 25.	
24. Multiply the number in line 23 by $365 and enter the result.	

25. If you have submitted a permit renewal application since the last time you paid fees enter $520, otherwise enter “0”	0
26. Sum line 22, 24, and 25 and enter the result. This is the GHG fee adjustment	0
OTHER ADJUSTMENTS	
27. Add the total on line 21 and the total on line 26 and enter the result.	$834.40
28. Enter any underpayment from line 9 or 19 here. Otherwise enter "0."	0
29. Enter any overpayment from line 10 or 20 here. Otherwise enter "0."	0
30. If line 28 is greater than "0," add it to line 27 and enter the result here. If line 29 is greater than "0," subtract this from line 27 and enter the result here. Otherwise enter the amount on line 27 here. This is the fee adjusted for over/underpayment**.**	$834.40
31. Enter any credit for fee assessment error here. Otherwise, enter "0."	0
32. Subtract line 31 from line 30 and enter the result here. Stop here. This is the **TOTAL FEE (AFTER ADJUSTMENTS)** that you must remit to EPA.	$834.40

United States Environmental Protection Agency

OMB No. 2060-0336
Approval Expires 5/31/2019

Federal Operating Permit Program (40 CFR Part 71)

CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS (CTAC)

This form must be completed, signed by the "Responsible Official" designated for the facility or emission unit, and sent with each submission of documents (i.e., application forms, updates to applications, reports, or any information required by a part 71 permit).

A. Responsible Official

Name: (Last) Franc (First) Mark (MI) ____

Title: Senior District Manager

Street or P.O. Box 3405 W. 900 South

City Salt Lake City State UT ZIP 84401 - ____

Telephone (801) 726 - 7052 Ext. ____ Facsimile ____

B. Certification of Truth, Accuracy and Completeness (to be signed by the responsible official)

I certify under penalty of law, based on information and belief formed after reasonable inquiry, the statements and information contained in these documents are true, accurate and complete.

Name (signed) Mark W. Franc

Name (typed) Mark Franc Date: 04 / 01 / 2019

TABLE 1
FACILITY SIGNIFICANT SOURCE EMISSIONS SUMMARY
ACTUAL EMISSIONS
TEKOI LANDFILL

Actual Emissions (2018)

Emission Unit ID	NOx (tons/yr)	VOC (tons/yr)	PM_{10} (tons/yr)	SOx (tons/yr)	HAPs (tons/yr)
E1	NA	4.78	NA	NA	2.18
E2	NA	NA	8.06	NA	NA
E3	0.56	0.03	0.02	0.10	NA
Total	**0.6**	**4.8**	**8.1**	**0.1**	**2.2**

TABLE 2
LANDFILL GAS FUGITIVE EMISSIONS (E1)
TEKOI LANDFILL

CAS Number	Pollutant	Molecular Weight	Default Concentration In LFG [1]	Actual (2018) Pollutants Generated in LFG [2]	Actual (2018) Pollutants Generated in LFG[2]
Hazardous Air Pollutants (HAPs) [1]		**(g/mol)**	**(ppmv)**	**(tons/year)**	**(lbs/year)**
71-55-6	1,1,1-Trichloroethane (methyl chloroform)	133.41	0.168	7.78E-03	1.56E+01
79-34-5	1,1,2,2-Tetrachloroethane	167.85	0.070	4.08E-03	8.16E+00
75-34-3	1,1-Dichloroethane (ethylidene dichloride)	98.97	0.741	2.55E-02	5.09E+01
75-35-4	1,1-Dichloroethene (vinylidene chloride)	96.94	0.092	3.10E-03	6.19E+00
107-06-2	1,2-Dichloroethane (ethylene dichloride)	98.96	0.120	4.12E-03	8.24E+00
78-87-5	1,2-Dichloropropane (propylene dichloride)	112.99	0.023	9.02E-04	1.80E+00
107-13-1	Acrylonitrile [3]	53.06	0.036	6.63E-04	1.33E+00
71-43-2	Benzene [4]	78.11	0.972	2.63E-02	5.27E+01
75-15-0	Carbon disulfide	76.13	0.320	8.45E-03	1.69E+01
56-23-5	Carbon tetrachloride [3]	153.84	0.007	3.74E-04	7.47E-01
463-58-1	Carbonyl sulfide	60.07	0.183	3.82E-03	7.63E+00
108-90-7	Chlorobenzene	112.56	0.227	8.87E-03	1.77E+01
75-00-3	Chloroethane (ethyl chloride)	64.52	0.239	5.35E-03	1.07E+01
67-66-3	Chloroform	119.39	0.021	8.70E-04	1.74E+00
74-87-3	Chloromethane (methylene chloride)	50.49	0.249	4.36E-03	8.73E+00
106-46-7	Dichlorobenzene (1,4-Dichlorobenzene)	147	1.607	8.20E-02	1.64E+02
75-09-2	Dichloromethane (Methylene Chloride)	84.94	3.395	1.00E-01	2.00E+02
100-41-4	Ethylbenzene	106.16	6.789	2.50E-01	5.00E+02
106-93-4	Ethylene dibromide (1,2-Dibromoethane) [3]	187.88	0.046	3.00E-03	6.00E+00
110-54-3	Hexane	86.18	2.324	6.95E-02	1.39E+02
7439-97-6	Mercury (total)	200.61	2.92E-04	2.03E-05	4.07E-02
108-10-1	Methyl isobutyl ketone	100.16	0.75	2.61E-02	5.21E+01
127-18-4	Perchloroethylene (tetrachloroethylene)	165.83	1.193	6.87E-02	1.37E+02
108-88-3	Toluene [4]	92.13	25.405	8.12E-01	1.62E+03
79-01-6	Trichloroethylene (trichloroethene)	131.40	0.681	3.11E-02	6.21E+01
75-01-4	Vinyl chloride	62.5	1.077	2.34E-02	4.67E+01
1330-20-7	Xylenes	106.16	16.582	6.11E-01	1.22E+03
	Total HAPs			**2.2**	**4,363.3**

TABLE 2
LANDFILL GAS FUGITIVE EMISSIONS (E1)
TEKOI LANDFILL

	Pollutant	Molecular Weight	Concentration In LFG	Actual (2018) Pollutants Generated in LFG (2)	Actual (2018) Pollutants Generated in LFG(2)
	Criteria Air Pollutants	**(g/mol)**	**(ppmv)**	**(tons/year)**	**(lbs/year)**
Actual	Volatile Organic Compounds (VOCs) as Hexane (5)	86.18	160	4.8	9,565
Actual	Total Non-Methane Organics (NMOCs) as Hexane (6)	86.18	410	12.3	24,526

Notes:

(1) List is from AP-42, Section 2.4; Values obtained from WIAC, 2001, except for value for mercury and hydrochloric acid, which was obtained from Table 2.4-1 of AP-42.

(2) Actual emissions are based on LFG generation from the landfill for 2018 with no gas collection.

(3) The value shown is the minimum detection limit. These compounds were not detected in MSW-only sites monitored in WIAC study.

(4) Default concentrations for benzene and toluene are based on WIAC values for site with no co-disposal.

(5) For VOCs, 39% by weight of NMOC concentrations assumed per AP-42.

(6) NMOC concentration based on 2018 site-specific Tier 2 test results (410 ppmv as hexane)

(7) scfm based upon USEPA LandGEM estimate using region specific k=(0.020) and L_0=(100).

MODEL INPUT VARIABLES		
Actual NMOC concentration in landfill gas 6	410	ppmv as hexane
Methane Content of LFG adjusted to:	50%	
Actual Landfill Gas Generation Rate 7	509	scfm LFG generation in 2018, from LandGEM model

TABLE 3
FUGITIVE DUST EMISSIONS FROM PAVED ROADWAY (E2)
TEKOI LANDFILL

Emission Source: Paved Roadway		
Length of Road:	7,920	feet
Round Trip Road Length:	3.00	miles

Calculation of Average Vehicle Miles Traveled (VMT)

Type of Vehicle	Average Number of Vehicles/Day	Number of Trips Per day	Average VMT (per day) Actual	Operational Days/yr[1]	Average VMT (per year) Actual
Transfer Trucks					
Transfer Trucks and Trailers	7	1.0	22.1	260	5,733
Other Trucks					
Diesel Fuel Truck[2]	0.10	1.0	0.30	260	78
Service Truck	1.00	1.0	3.00	260	780
2003 F150	1.00	1.0	3.00	260	780
2008 F150	1.00	2.0	6.00	260	1,560
Private Vehicles					
Private (Employee Vehicles)	5	1.0	15.0	260	3,900
TOTALS	15	**7.0**	**49.4**		**12,831**

[1] 260 days/yr reflects 5 day work week

[2] Assumes approximately 2 fuel deliveries per month

Vehicle Type	Average Weight (tons)	Average VMT (per year)	Weight times Annual VMT (tons)
Transfer Trucks			
Transfer Trucks and Trailers	45.5	5,733	260,852
Other Trucks			
Diesel Fuel Truck	19.2	78	1,498
Service Truck	16.5	780	12,870
2003 F150	2.5	780	1,950
2008 F150	2.5	1,560	3,900
Private (Employee Vehicles)	2.5	3,900	9,750
TOTAL			290,819.10
		Average Vehicle Weight (tons)	**22.67**

Methodologies:

AP-42, Section 13.2.1-3 (rev 1/11), Equation (2), for Paved Roads.

$$E = [k(sL)^{0.91} * (W)^{1.02}] * (1 - P/4N)$$

E	=	Emission factor in pounds per vehicle mile traveled (lb/VMT)
k	=	Particle size multiplier (lb/VMT)
sL	=	Road surface silt loading factor (g/m^2)
W	=	Average Vehicle weight in tons
P	=	Number of days with rain > 0.01 inches
N	=	Averaging period

Fugitive Dust Control Measures:	Control Efficiency
Watering Roads as needed: None	0%
Street Sweeping as needed: None	0%
Cumulative Total Control:	0%

TABLE 3
FUGITIVE DUST EMISSIONS FROM PAVED ROADWAY (E2)
TEKOI LANDFILL

Variables:	**k factor**[1]	**Silt loading**[2] **(sL)**	**W**	**P**[3]	**N** (Long Term)
Pollutant	lb/VMT	g/m^2	Tons	days	days
PM_{10}	0.0022	7.4	22.67	90	365

[1] From AP-42, Table 13.2-1.1
[2] From AP-42, Table 13.2.1-4
[3] From AP-42, Figure 13.2.1-2

Summary of PM_{10} Emissions From Roadway Segment PRD-1			
	Emission Factor	Actual Emissions	
Pollutant	lb/VMT (daily)	lbs/day	tons/yr
PM_{10}	**0.3078**	**15.19**	**2.0**

TABLE 4
FUGITIVE DUST EMISSIONS FROM UNPAVED ROADWAY (E2)
TEKOI LANDFILL

Emission Source: Unpaved Roadway (Main Haul Road)		
Length of Road:	2,600	feet
Round Trip Road Length:	0.98	miles

Calculation of Average Vehicle Miles Traveled (VMT)

	Average Number of	Number of Trips	Current Average VMT (per day)	Operational	(per year)
Type of Vehicle	**Vehicles/Day**	**Per day**	**Actual**	**Days/yr[1]**	**Actual**
Dozers					
CAT D5 Dozer	1	1	0.98	260	256
CAT D8R	1	1	0.98	260	256
Loaders					
CAT 950G	1	5	4.9	260	1,280
Komatsu 250 Loader	1	5	4.9	260	1,280
Water Trucks					
Diesel Water Truck	1	2	2.0	260	512
Compactor					
826H CAT Compactor[2]	0	0	0.0	260	0
Scraper					
627E	1	15	14.8	260	3,841
Transfer Trucks					
Off-Site Transfer Trucks and Trailers	18	1	17.7	260	4,609
Other Trucks					
Site Fuel Truck	1	2	2.0	260	512
Yard Truck	1	0	0.0	260	0
Yard Truck (spare)	1	0	0.0	260	0
2008 Ford F150	1	3	3.0	260	768
Service Truck	1	2	2.0	260	512
Private Vehicles					
Private (Employee Vehicles)	5	0	0.0	260	0
TOTALS	**34**	**37**	**53**		**13,827**

[1] 260 days/yr reflects 5 day work week

[2]Remains in trash area.

	Average Weight	Average VMT	Weight times Annual VMT
Vehicle Type	**(tons)**	**(per year)**	**(tons)**
Dozers			
CAT D5 Dozer	13.39	256.1	3,429
CAT D8R1	41.7	256.1	10,678
Loaders			
CAT 950G	18.6	1,280	23,852
Komatsu 250 Loader	8.0	1,280	10,242
Water Trucks			
Diesel Water Truck	35.9	512	18,375
CAT 826H Compactor	40.8	0	0
Scraper			
627E	38.2	3,841	146,800
Transfer Trucks			
Off-Site Transfer Trucks and Trailers	31.8	4,609	146,569
Other Trucks			
Site Fuel Truck	35.9	512	18,375
Yard Truck AM Generator	4.4	0	0
Yard Truck (Mack MR6885 - spare)	4.4	0	0
2008 Ford F150	2.5	768	1,920
Service Truck	12.8	512	6,550
Private Vehicles			
Private (Employee Vehicles)	2.5	0	0
TOTAL			**386,790**
		Average Vehicle Weight (tons)	**27.97**

TABLE 4
FUGITIVE DUST EMISSIONS FROM UNPAVED ROADWAY (E2)
TEKOI LANDFILL

Methodologies:
AP-42, Section 13.2.2.2 (rev 11/06), Equation (2), for Unpaved Roads at Industrial Sites.

$$E_{ext} = k(s/12)^a * (W/3)^b * [(365-P)/365]$$

E	=	Annual size-specific emission factor extrapolated for natural mitigation, lb/VMT
k	=	Particle size multiplier (lb/VMT)
a	=	Empirical Constant from Table 13.2.2-2
b	=	Empirical Constant from Table 13.2.2-2
s	=	Surface material silt content (%)
W	=	Average Vehicle weight in tons
P	=	Number of days with rain > 0.01 inches

Fugitive Dust Control Measures:	Control Efficiency	Source:
Watering Roads as needed:	70%	BAAQMD Permitting Handbook (2006)
Chemical Dust Suppressants: None	0%	
Cumulative Total Control:	70%	

Variables:	**k factor[1]**	**a**	**b**	**Surface Silt Content[2] (%)**	**W**	**P[3]**
Pollutant	lb/VMT			(%)	Tons	days
PM_{10}	1.5	0.9	0.45	6.4	27.97	90

[1] From AP-42, Section 13.2.1.3
[2] AP-42 (Table 13.2.2-1) mean silt content for municipal solid waste landfills
[3] From AP-42, Figure 13.2.1-2

Summary of PM10 Emissions From Roadway Segment UPR-2

Pollutant	Emission Factor lb/VMT (daily)	Actual Emissions	
		lbs/day	tons/yr
PM_{10}	1.7529	**27.97**	**3.6**

TABLE 5
FUGITIVE DUST EMISSIONS FROM MATERIAL HANDLING (E2)
TEKOI LANDFILL

According to AP-42, Section 13.2.4, Aggregate Handling and Storage Piles (11/06):

The quantity of particulate matter emissions generated by either type of drop operation may be estimated using equation 1.

$$E = k(0.0032)\ [(U/5)^{1.3}]/[(M/2)^{1.4}]$$

E = Emission Factor, lb/ton
k = particle size multiplier (dimensionless) (Section 13.2.4.3)
U = mean wind speed, miles per hour (mph)
M = Material moisture content (%) (Table 13.2.4-1)

Particle Size Multiplier, k

Particle Size	k
PM-10	0.35
PM-2.5	0.053
PM_{30} (TSP)	0.74

Mean Wind Speed, U

Based on Meteorological Data from Michael Army Air Field

	Wind Speed (mph)
Average	**6.00**

Material Moisture Content, %

For municipal Solid Waste Landfills (cover material)		
M =	12%	(mean)

TABLE 5
FUGITIVE DUST EMISSIONS FROM MATERIAL HANDLING (E2)
TEKOI LANDFILL

Emission Factor Calculation

For PM_{10}: $E = [(0.35) * (0.0032) * [(6/5)^{1.3} / (0.12/2)^{1.4}]$

E = 0.0729 lb/ton

Fugitive Dust from Material Handling (Soil)

2018 Site Data:		
Amount of Cover Soil Used:	56,000	yd^3/year
Amount of Soil Excavated:	0	yd^3/year

Emission Calculations

Estimated Density of Soil:	2,400	lbs/yd^3
	67,200	tons/year of cover soil used
	0	tons/year of soil excavated for cell construction
Total Amount of Soil in 2018:	67,200	tons/year
PM_{10} Emissions =	**4,899.04**	**lbs/year**
	2.4	**tons/year**

TABLE 6. ACTUAL 2018 EMISSIONS FROM E3
TEKOI LANDFILL

Equipment:	Diesel Engine	
Engine Capacity:	165 hp	

Actual 2018 Hours of Operation	
565	hours/year

165 HP John Deere Generator Engine (E3)

Regulated Pollutants	Maximum Engine Rating (horsepower)	2018 Hours of Operation (hours/year)	Emissions Factor (g/hp-hour)	2018 Emissions (lb/year)	2018 Emissions (tons/year)
VOC[a,d]	165	565	0.30	61.30	0.03
NOx[a]	165	565	5.44	1,118.79	0.56
SOx[b]	165	565	0.930	191.11	0.10
CO[a]	165	565	0.67	137.93	0.07
PM_{10}[a,c]	165	565	0.21	42.91	0.02

Emission Factors		
VOC	0.30	g/hp-hr
NOx	5.44	g/hp-hr
CO	0.67	g/hp-hr
PM	0.21	g/hp-hr
Conversion Factor		
453.6 grams = 1 pound		

a = Emission factors for pollutants are the certified factors listed in Executive Order U-R-004-0119.
b = Emission factor for SOx comes from AP-42 Table 3.3-1 'Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines.'
c = For the purposes of calculating particulate, PM_{10} = PM (all combustion PM assumed to be PM_{10})
d = For the purposes of calculating VOCs, the emission factor for hydrocarbons (HC) is used.

Summary Report

Landfill Name or Identifier: Tekoi Landfill, Utah

Date: Tuesday, March 26, 2019

Description/Comments:

About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^{n} \sum_{j=0.1}^{1} k L_o \left(\frac{M_i}{10} \right) e^{-k t_{ij}}$$

Where,

Q_{CH4} = annual methane generation in the year of the calculation *(m^3/year)*
i = 1-year time increment
n = (year of the calculation) - (initial year of waste acceptance)
j = 0.1-year time increment
k = methane generation rate (*$year^{-1}$*)
L_o = potential methane generation capacity (*m^3/Mg*)

M_i = mass of waste accepted in the ith year (*Mg*)
t_{ij} = age of the jth section of waste mass M_i accepted in the ith year (*decimal years*, e.g., 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Further guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology requirements can be found at http://www.epa.gov/ttnatw01/landfill/landflpg.html.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over time that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation or other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation are being developed to include in LandGEM along with defaults for convential landfills (no leachate or liquid additions) for developing emission inventories and determining CAA applicability. Refer to the Web site identified above for future updates.

Input Review

The 80-year waste acceptance limit of the model has been exceeded before the Waste Design Capacity was reached. The model will assume the 80th year of waste acceptance as the final year to estimate emissions. See Section 2.6 of the User's Manual.

LANDFILL CHARACTERISTICS

Landfill Open Year	**2005**	
Landfill Closure Year (with 80-year limit)	**2084**	
Actual Closure Year (without limit)	***3332***	
Have Model Calculate Closure Year?	**Yes**	
Waste Design Capacity	**100,000,000**	*short tons*

MODEL PARAMETERS

Methane Generation Rate, k	**0.020**	*$year^{-1}$*
Potential Methane Generation Capacity, L_o	**100**	*m^3/Mg*
NMOC Concentration	**410**	*ppmv as hexane*
Methane Content	**50**	*% by volume*

GASES / POLLUTANTS SELECTED

Gas / Pollutant #1:	**Total landfill gas**
Gas / Pollutant #2:	**Methane**
Gas / Pollutant #3:	**Carbon dioxide**
Gas / Pollutant #4:	**NMOC**

WASTE ACCEPTANCE RATES

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
2005	140,242	154,266	0	0
2006	268,131	294,944	140,242	154,266
2007	264,525	290,978	408,373	449,210
2008	211,796	232,976	672,898	740,188
2009	173,041	190,345	884,695	973,164
2010	145,182	159,700	1,057,735	1,163,509
2011	153,767	169,144	1,202,917	1,323,209
2012	153,554	168,909	1,356,685	1,492,353
2013	171,218	188,340	1,510,238	1,661,262
2014	196,194	215,814	1,681,456	1,849,602
2015	174,515	191,967	1,877,651	2,065,416
2016	70,106	77,117	2,052,166	2,257,383
2017	61,965	68,162	2,122,272	2,334,500
2018	67,507	74,258	2,184,238	2,402,662
2019	67,507	74,258	2,251,745	2,476,920
2020	67,507	74,258	2,319,252	2,551,178
2021	67,507	74,258	2,386,760	2,625,436
2022	67,507	74,258	2,454,267	2,699,694
2023	67,507	74,258	2,521,774	2,773,952
2024	67,507	74,258	2,589,281	2,848,210
2025	67,507	74,258	2,656,789	2,922,468
2026	67,507	74,258	2,724,296	2,996,726
2027	67,507	74,258	2,791,803	3,070,984
2028	67,507	74,258	2,859,311	3,145,242
2029	67,507	74,258	2,926,818	3,219,500
2030	67,507	74,258	2,994,325	3,293,758
2031	67,507	74,258	3,061,832	3,368,016
2032	67,507	74,258	3,129,340	3,442,274
2033	67,507	74,258	3,196,847	3,516,532
2034	67,507	74,258	3,264,354	3,590,790
2035	67,507	74,258	3,331,861	3,665,048
2036	67,507	74,258	3,399,369	3,739,306
2037	67,507	74,258	3,466,876	3,813,564
2038	67,507	74,258	3,534,383	3,887,822
2039	67,507	74,258	3,601,891	3,962,080
2040	67,507	74,258	3,669,398	4,036,338
2041	67,507	74,258	3,736,905	4,110,596
2042	67,507	74,258	3,804,412	4,184,854
2043	67,507	74,258	3,871,920	4,259,112
2044	67,507	74,258	3,939,427	4,333,370

WASTE ACCEPTANCE RATES (Continued)

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
2045	67,507	74,258	4,006,934	4,407,628
2046	67,507	74,258	4,074,441	4,481,886
2047	67,507	74,258	4,141,949	4,556,144
2048	67,507	74,258	4,209,456	4,630,402
2049	67,507	74,258	4,276,963	4,704,660
2050	67,507	74,258	4,344,471	4,778,918
2051	67,507	74,258	4,411,978	4,853,176
2052	67,507	74,258	4,479,485	4,927,434
2053	67,507	74,258	4,546,992	5,001,692
2054	67,507	74,258	4,614,500	5,075,950
2055	67,507	74,258	4,682,007	5,150,208
2056	67,507	74,258	4,749,514	5,224,466
2057	67,507	74,258	4,817,021	5,298,724
2058	67,507	74,258	4,884,529	5,372,982
2059	67,507	74,258	4,952,036	5,447,240
2060	67,507	74,258	5,019,543	5,521,498
2061	67,507	74,258	5,087,051	5,595,756
2062	67,507	74,258	5,154,558	5,670,014
2063	67,507	74,258	5,222,065	5,744,272
2064	67,507	74,258	5,289,572	5,818,530
2065	67,507	74,258	5,357,080	5,892,788
2066	67,507	74,258	5,424,587	5,967,046
2067	67,507	74,258	5,492,094	6,041,304
2068	67,507	74,258	5,559,601	6,115,562
2069	67,507	74,258	5,627,109	6,189,820
2070	67,507	74,258	5,694,616	6,264,078
2071	67,507	74,258	5,762,123	6,338,336
2072	67,507	74,258	5,829,631	6,412,594
2073	67,507	74,258	5,897,138	6,486,852
2074	67,507	74,258	5,964,645	6,561,110
2075	67,507	74,258	6,032,152	6,635,368
2076	67,507	74,258	6,099,660	6,709,626
2077	67,507	74,258	6,167,167	6,783,884
2078	67,507	74,258	6,234,674	6,858,142
2079	67,507	74,258	6,302,181	6,932,400
2080	67,507	74,258	6,369,689	7,006,658
2081	67,507	74,258	6,437,196	7,080,916
2082	67,507	74,258	6,504,703	7,155,174
2083	67,507	74,258	6,572,211	7,229,432
2084	67,507	74,258	6,639,718	7,303,690

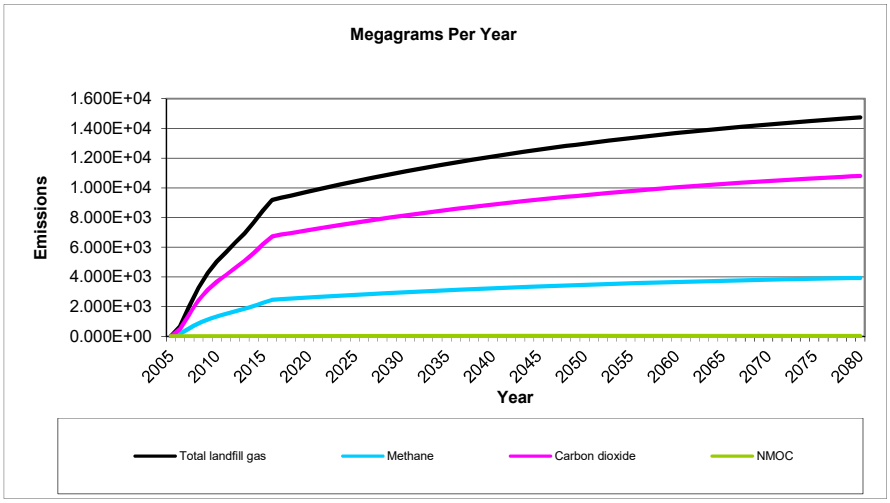
Pollutant Parameters

		Gas / Pollutant Default Parameters:		User-specified Pollutant Parameters:	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Gases	Total landfill gas		0.00		
	Methane		16.04		
	Carbon dioxide		44.01		
	NMOC	4,000	86.18		
Pollutants	1,1,1-Trichloroethane (methyl chloroform) - HAP	0.48	133.41		
	1,1,2,2-Tetrachloroethane - HAP/VOC	1.1	167.85		
	1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2.4	98.97		
	1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	0.20	96.94		
	1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	0.41	98.96		
	1,2-Dichloropropane (propylene dichloride) - HAP/VOC	0.18	112.99		
	2-Propanol (isopropyl alcohol) - VOC	50	60.11		
	Acetone	7.0	58.08		
	Acrylonitrile - HAP/VOC	6.3	53.06		
	Benzene - No or Unknown Co-disposal - HAP/VOC	1.9	78.11		
	Benzene - Co-disposal - HAP/VOC	11	78.11		
	Bromodichloromethane - VOC	3.1	163.83		
	Butane - VOC	5.0	58.12		
	Carbon disulfide - HAP/VOC	0.58	76.13		
	Carbon monoxide	140	28.01		
	Carbon tetrachloride - HAP/VOC	4.0E-03	153.84		
	Carbonyl sulfide - HAP/VOC	0.49	60.07		
	Chlorobenzene - HAP/VOC	0.25	112.56		
	Chlorodifluoromethane	1.3	86.47		
	Chloroethane (ethyl chloride) - HAP/VOC	1.3	64.52		
	Chloroform - HAP/VOC	0.03	119.39		
	Chloromethane - VOC	1.2	50.49		
	Dichlorobenzene - (HAP for para isomer/VOC)	0.21	147		
	Dichlorodifluoromethane	16	120.91		
	Dichlorofluoromethane - VOC	2.6	102.92		
	Dichloromethane (methylene chloride) - HAP	14	84.94		
	Dimethyl sulfide (methyl sulfide) - VOC	7.8	62.13		
	Ethane	890	30.07		
	Ethanol - VOC	27	46.08		

Pollutant Parameters (Continued)

	Gas / Pollutant Default Parameters:			User-specified Pollutant Parameters:	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Pollutants	Ethyl mercaptan (ethanethiol) - VOC	2.3	62.13		
	Ethylbenzene - HAP/VOC	4.6	106.16		
	Ethylene dibromide - HAP/VOC	1.0E-03	187.88		
	Fluorotrichloromethane - VOC	0.76	137.38		
	Hexane - HAP/VOC	6.6	86.18		
	Hydrogen sulfide	36	34.08		
	Mercury (total) - HAP	2.9E-04	200.61		
	Methyl ethyl ketone - HAP/VOC	7.1	72.11		
	Methyl isobutyl ketone - HAP/VOC	1.9	100.16		
	Methyl mercaptan - VOC	2.5	48.11		
	Pentane - VOC	3.3	72.15		
	Perchloroethylene (tetrachloroethylene) - HAP	3.7	165.83		
	Propane - VOC	11	44.09		
	t-1,2-Dichloroethene - VOC	2.8	96.94		
	Toluene - No or Unknown Co-disposal - HAP/VOC	39	92.13		
	Toluene - Co-disposal - HAP/VOC	170	92.13		
	Trichloroethylene (trichloroethene) - HAP/VOC	2.8	131.40		
	Vinyl chloride - HAP/VOC	7.3	62.50		
	Xylenes - HAP/VOC	12	106.16		

Graphs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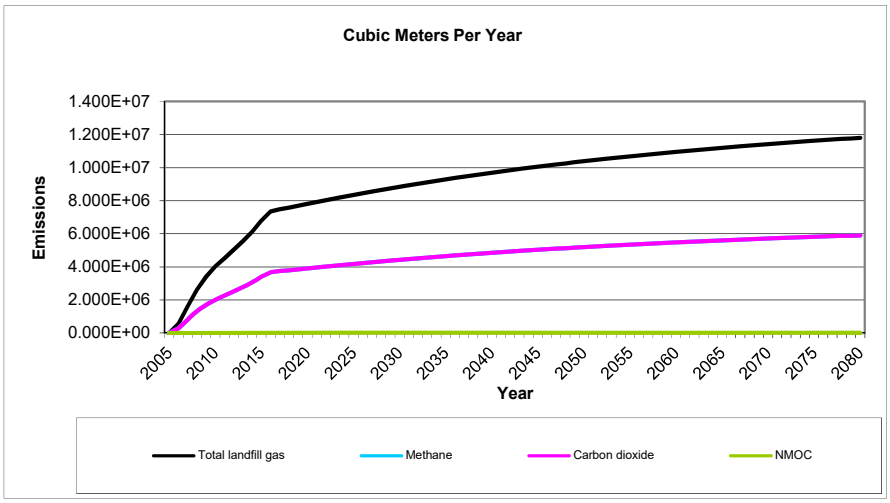
1.400E+04
1.200E+04
1.000E+04
8.000E+03
6.000E+03
4.000E+03
2.000E+03
0.000E+00
2005 2010 2015 2020 2025 2030 2035 2040 2045 2050 2055 2060 2065 2070 2075 2080
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


Cubic Meters Per Year
Emissions
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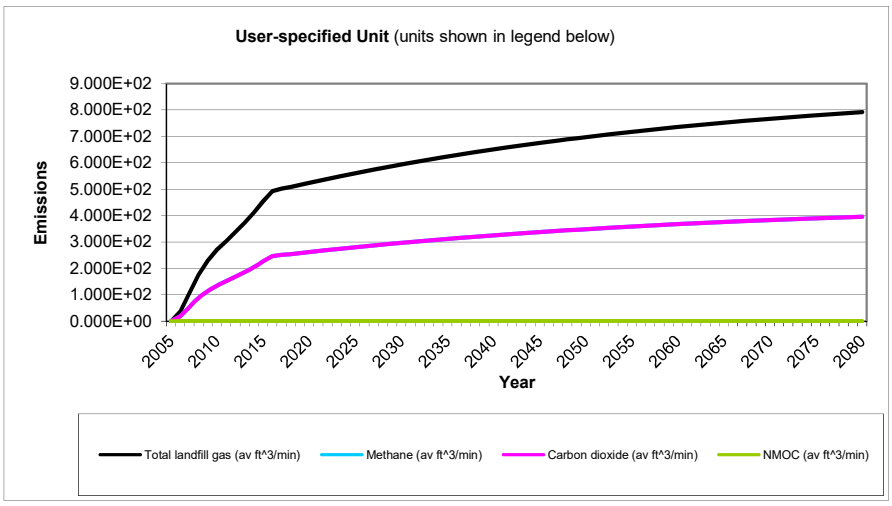
1.200E+07
1.000E+07
8.000E+06
6.000E+06
4.000E+06
2.000E+06
0.000E+00
2005 2010 2015 2020 2025 2030 2035 2040 2045 2050 2055 2060 2065 2070 2075 2080
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


User-specified Unit (units shown in legend below)
Emissions
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8.000E+02
7.000E+02
6.000E+02
5.000E+02
4.000E+02
3.000E+02
2.000E+02
1.000E+02
0.000E+00
2005 2010 2015 2020 2025 2030 2035 2040 2045 2050 2055 2060 2065 2070 2075 2080
Year
Total landfill gas (av ft^3/min)
Methane (av ft^3/min)
Carbon dioxide (av ft^3/min)
NMOC (av ft^3/min)

Results

Year	Total landfill gas			Methane		
	(Mg/year)	(m^3/year)	(av ft^3/min)	(Mg/year)	(m^3/year)	(av ft^3/min)
2005	0	0	0	0	0	0
2006	6.943E+02	5.560E+05	3.735E+01	1.855E+02	2.780E+05	1.868E+01
2007	2.008E+03	1.608E+06	1.080E+02	5.363E+02	8.039E+05	5.402E+01
2008	3.278E+03	2.625E+06	1.764E+02	8.755E+02	1.312E+06	8.818E+01
2009	4.261E+03	3.412E+06	2.293E+02	1.138E+03	1.706E+06	1.146E+02
2010	5.034E+03	4.031E+06	2.708E+02	1.345E+03	2.015E+06	1.354E+02
2011	5.653E+03	4.526E+06	3.041E+02	1.510E+03	2.263E+06	1.521E+02
2012	6.302E+03	5.046E+06	3.391E+02	1.683E+03	2.523E+06	1.695E+02
2013	6.937E+03	5.555E+06	3.733E+02	1.853E+03	2.778E+06	1.866E+02
2014	7.648E+03	6.124E+06	4.115E+02	2.043E+03	3.062E+06	2.057E+02
2015	8.468E+03	6.780E+06	4.556E+02	2.262E+03	3.390E+06	2.278E+02
2016	9.164E+03	7.338E+06	4.930E+02	2.448E+03	3.669E+06	2.465E+02
2017	9.329E+03	7.471E+06	5.019E+02	2.492E+03	3.735E+06	2.510E+02
2018	9.451E+03	7.568E+06	5.085E+02	2.525E+03	3.784E+06	2.543E+02
2019	9.599E+03	7.686E+06	5.164E+02	2.564E+03	3.843E+06	2.582E+02
2020	9.743E+03	7.801E+06	5.242E+02	2.602E+03	3.901E+06	2.621E+02
2021	9.884E+03	7.915E+06	5.318E+02	2.640E+03	3.957E+06	2.659E+02
2022	1.002E+04	8.026E+06	5.392E+02	2.677E+03	4.013E+06	2.696E+02
2023	1.016E+04	8.134E+06	5.465E+02	2.713E+03	4.067E+06	2.733E+02
2024	1.029E+04	8.241E+06	5.537E+02	2.749E+03	4.120E+06	2.768E+02
2025	1.042E+04	8.345E+06	5.607E+02	2.784E+03	4.173E+06	2.804E+02
2026	1.055E+04	8.448E+06	5.676E+02	2.818E+03	4.224E+06	2.838E+02
2027	1.067E+04	8.548E+06	5.743E+02	2.851E+03	4.274E+06	2.872E+02
2028	1.080E+04	8.646E+06	5.809E+02	2.884E+03	4.323E+06	2.905E+02
2029	1.092E+04	8.743E+06	5.874E+02	2.916E+03	4.371E+06	2.937E+02
2030	1.104E+04	8.837E+06	5.938E+02	2.948E+03	4.419E+06	2.969E+02
2031	1.115E+04	8.930E+06	6.000E+02	2.979E+03	4.465E+06	3.000E+02
2032	1.127E+04	9.021E+06	6.061E+02	3.009E+03	4.510E+06	3.030E+02
2033	1.138E+04	9.110E+06	6.121E+02	3.039E+03	4.555E+06	3.060E+02
2034	1.149E+04	9.197E+06	6.179E+02	3.068E+03	4.598E+06	3.090E+02
2035	1.159E+04	9.282E+06	6.237E+02	3.096E+03	4.641E+06	3.118E+02
2036	1.170E+04	9.366E+06	6.293E+02	3.124E+03	4.683E+06	3.147E+02
2037	1.180E+04	9.448E+06	6.348E+02	3.152E+03	4.724E+06	3.174E+02
2038	1.190E+04	9.529E+06	6.402E+02	3.179E+03	4.764E+06	3.201E+02
2039	1.200E+04	9.608E+06	6.455E+02	3.205E+03	4.804E+06	3.228E+02
2040	1.209E+04	9.685E+06	6.507E+02	3.231E+03	4.843E+06	3.254E+02
2041	1.219E+04	9.761E+06	6.558E+02	3.256E+03	4.880E+06	3.279E+02
2042	1.228E+04	9.835E+06	6.608E+02	3.281E+03	4.918E+06	3.304E+02
2043	1.237E+04	9.908E+06	6.657E+02	3.305E+03	4.954E+06	3.329E+02
2044	1.246E+04	9.980E+06	6.705E+02	3.329E+03	4.990E+06	3.353E+02
2045	1.255E+04	1.005E+07	6.752E+02	3.352E+03	5.025E+06	3.376E+02
2046	1.264E+04	1.012E+07	6.798E+02	3.375E+03	5.059E+06	3.399E+02
2047	1.272E+04	1.019E+07	6.844E+02	3.398E+03	5.093E+06	3.422E+02
2048	1.280E+04	1.025E+07	6.888E+02	3.420E+03	5.126E+06	3.444E+02
2049	1.288E+04	1.032E+07	6.931E+02	3.441E+03	5.158E+06	3.466E+02
2050	1.296E+04	1.038E+07	6.974E+02	3.462E+03	5.190E+06	3.487E+02
2051	1.304E+04	1.044E+07	7.016E+02	3.483E+03	5.221E+06	3.508E+02
2052	1.312E+04	1.050E+07	7.056E+02	3.503E+03	5.251E+06	3.528E+02
2053	1.319E+04	1.056E+07	7.097E+02	3.523E+03	5.281E+06	3.548E+02
2054	1.326E+04	1.062E+07	7.136E+02	3.543E+03	5.310E+06	3.568E+02

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2055	1.333E+04	1.068E+07	7.174E+02	3.562E+03	5.339E+06	3.587E+02
2056	1.340E+04	1.073E+07	7.212E+02	3.581E+03	5.367E+06	3.606E+02
2057	1.347E+04	1.079E+07	7.249E+02	3.599E+03	5.394E+06	3.625E+02
2058	1.354E+04	1.084E+07	7.285E+02	3.617E+03	5.421E+06	3.643E+02
2059	1.361E+04	1.090E+07	7.321E+02	3.635E+03	5.448E+06	3.660E+02
2060	1.367E+04	1.095E+07	7.356E+02	3.652E+03	5.474E+06	3.678E+02
2061	1.374E+04	1.100E+07	7.390E+02	3.669E+03	5.499E+06	3.695E+02
2062	1.380E+04	1.105E+07	7.423E+02	3.685E+03	5.524E+06	3.712E+02
2063	1.386E+04	1.110E+07	7.456E+02	3.702E+03	5.549E+06	3.728E+02
2064	1.392E+04	1.115E+07	7.488E+02	3.718E+03	5.573E+06	3.744E+02
2065	1.398E+04	1.119E+07	7.520E+02	3.733E+03	5.596E+06	3.760E+02
2066	1.403E+04	1.124E+07	7.551E+02	3.749E+03	5.619E+06	3.775E+02
2067	1.409E+04	1.128E+07	7.581E+02	3.764E+03	5.642E+06	3.791E+02
2068	1.415E+04	1.133E+07	7.611E+02	3.778E+03	5.664E+06	3.805E+02
2069	1.420E+04	1.137E+07	7.640E+02	3.793E+03	5.685E+06	3.820E+02
2070	1.425E+04	1.141E+07	7.668E+02	3.807E+03	5.707E+06	3.834E+02
2071	1.430E+04	1.145E+07	7.696E+02	3.821E+03	5.727E+06	3.848E+02
2072	1.436E+04	1.150E+07	7.724E+02	3.835E+03	5.748E+06	3.862E+02
2073	1.441E+04	1.154E+07	7.751E+02	3.848E+03	5.768E+06	3.875E+02
2074	1.445E+04	1.157E+07	7.777E+02	3.861E+03	5.787E+06	3.889E+02
2075	1.450E+04	1.161E+07	7.803E+02	3.874E+03	5.807E+06	3.901E+02
2076	1.455E+04	1.165E+07	7.828E+02	3.886E+03	5.825E+06	3.914E+02
2077	1.460E+04	1.169E+07	7.853E+02	3.899E+03	5.844E+06	3.926E+02
2078	1.464E+04	1.172E+07	7.877E+02	3.911E+03	5.862E+06	3.939E+02
2079	1.469E+04	1.176E+07	7.901E+02	3.923E+03	5.880E+06	3.951E+02
2080	1.473E+04	1.179E+07	7.924E+02	3.934E+03	5.897E+06	3.962E+02
2081	1.477E+04	1.183E+07	7.947E+02	3.946E+03	5.914E+06	3.974E+02
2082	1.481E+04	1.186E+07	7.970E+02	3.957E+03	5.931E+06	3.985E+02
2083	1.485E+04	1.189E+07	7.992E+02	3.968E+03	5.947E+06	3.996E+02
2084	1.489E+04	1.193E+07	8.013E+02	3.978E+03	5.963E+06	4.007E+02
2085	1.493E+04	1.196E+07	8.034E+02	3.989E+03	5.979E+06	4.017E+02
2086	1.464E+04	1.172E+07	7.875E+02	3.910E+03	5.861E+06	3.938E+02
2087	1.435E+04	1.149E+07	7.719E+02	3.832E+03	5.744E+06	3.860E+02
2088	1.406E+04	1.126E+07	7.567E+02	3.757E+03	5.631E+06	3.783E+02
2089	1.379E+04	1.104E+07	7.417E+02	3.682E+03	5.519E+06	3.708E+02
2090	1.351E+04	1.082E+07	7.270E+02	3.609E+03	5.410E+06	3.635E+02
2091	1.324E+04	1.061E+07	7.126E+02	3.538E+03	5.303E+06	3.563E+02
2092	1.298E+04	1.040E+07	6.985E+02	3.468E+03	5.198E+06	3.492E+02
2093	1.273E+04	1.019E+07	6.847E+02	3.399E+03	5.095E+06	3.423E+02
2094	1.247E+04	9.988E+06	6.711E+02	3.332E+03	4.994E+06	3.355E+02
2095	1.223E+04	9.790E+06	6.578E+02	3.266E+03	4.895E+06	3.289E+02
2096	1.198E+04	9.596E+06	6.448E+02	3.201E+03	4.798E+06	3.224E+02
2097	1.175E+04	9.406E+06	6.320E+02	3.138E+03	4.703E+06	3.160E+02
2098	1.151E+04	9.220E+06	6.195E+02	3.076E+03	4.610E+06	3.097E+02
2099	1.129E+04	9.038E+06	6.072E+02	3.015E+03	4.519E+06	3.036E+02
2100	1.106E+04	8.859E+06	5.952E+02	2.955E+03	4.429E+06	2.976E+02
2101	1.084E+04	8.683E+06	5.834E+02	2.896E+03	4.342E+06	2.917E+02
2102	1.063E+04	8.511E+06	5.719E+02	2.839E+03	4.256E+06	2.859E+02
2103	1.042E+04	8.343E+06	5.605E+02	2.783E+03	4.171E+06	2.803E+02
2104	1.021E+04	8.178E+06	5.494E+02	2.728E+03	4.089E+06	2.747E+02
2105	1.001E+04	8.016E+06	5.386E+02	2.674E+03	4.008E+06	2.693E+02

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2106	9.812E+03	7.857E+06	5.279E+02	2.621E+03	3.928E+06	2.640E+02
2107	9.618E+03	7.701E+06	5.174E+02	2.569E+03	3.851E+06	2.587E+02
2108	9.427E+03	7.549E+06	5.072E+02	2.518E+03	3.774E+06	2.536E+02
2109	9.240E+03	7.399E+06	4.972E+02	2.468E+03	3.700E+06	2.486E+02
2110	9.057E+03	7.253E+06	4.873E+02	2.419E+03	3.626E+06	2.437E+02
2111	8.878E+03	7.109E+06	4.777E+02	2.371E+03	3.555E+06	2.388E+02
2112	8.702E+03	6.968E+06	4.682E+02	2.324E+03	3.484E+06	2.341E+02
2113	8.530E+03	6.830E+06	4.589E+02	2.278E+03	3.415E+06	2.295E+02
2114	8.361E+03	6.695E+06	4.498E+02	2.233E+03	3.348E+06	2.249E+02
2115	8.196E+03	6.563E+06	4.409E+02	2.189E+03	3.281E+06	2.205E+02
2116	8.033E+03	6.433E+06	4.322E+02	2.146E+03	3.216E+06	2.161E+02
2117	7.874E+03	6.305E+06	4.237E+02	2.103E+03	3.153E+06	2.118E+02
2118	7.718E+03	6.180E+06	4.153E+02	2.062E+03	3.090E+06	2.076E+02
2119	7.565E+03	6.058E+06	4.070E+02	2.021E+03	3.029E+06	2.035E+02
2120	7.416E+03	5.938E+06	3.990E+02	1.981E+03	2.969E+06	1.995E+02
2121	7.269E+03	5.821E+06	3.911E+02	1.942E+03	2.910E+06	1.955E+02
2122	7.125E+03	5.705E+06	3.833E+02	1.903E+03	2.853E+06	1.917E+02
2123	6.984E+03	5.592E+06	3.757E+02	1.865E+03	2.796E+06	1.879E+02
2124	6.845E+03	5.482E+06	3.683E+02	1.829E+03	2.741E+06	1.842E+02
2125	6.710E+03	5.373E+06	3.610E+02	1.792E+03	2.687E+06	1.805E+02
2126	6.577E+03	5.267E+06	3.539E+02	1.757E+03	2.633E+06	1.769E+02
2127	6.447E+03	5.162E+06	3.469E+02	1.722E+03	2.581E+06	1.734E+02
2128	6.319E+03	5.060E+06	3.400E+02	1.688E+03	2.530E+06	1.700E+02
2129	6.194E+03	4.960E+06	3.333E+02	1.654E+03	2.480E+06	1.666E+02
2130	6.071E+03	4.862E+06	3.267E+02	1.622E+03	2.431E+06	1.633E+02
2131	5.951E+03	4.765E+06	3.202E+02	1.590E+03	2.383E+06	1.601E+02
2132	5.833E+03	4.671E+06	3.138E+02	1.558E+03	2.336E+06	1.569E+02
2133	5.718E+03	4.579E+06	3.076E+02	1.527E+03	2.289E+06	1.538E+02
2134	5.605E+03	4.488E+06	3.015E+02	1.497E+03	2.244E+06	1.508E+02
2135	5.494E+03	4.399E+06	2.956E+02	1.467E+03	2.200E+06	1.478E+02
2136	5.385E+03	4.312E+06	2.897E+02	1.438E+03	2.156E+06	1.449E+02
2137	5.278E+03	4.227E+06	2.840E+02	1.410E+03	2.113E+06	1.420E+02
2138	5.174E+03	4.143E+06	2.784E+02	1.382E+03	2.071E+06	1.392E+02
2139	5.071E+03	4.061E+06	2.728E+02	1.355E+03	2.030E+06	1.364E+02
2140	4.971E+03	3.980E+06	2.674E+02	1.328E+03	1.990E+06	1.337E+02
2141	4.872E+03	3.902E+06	2.621E+02	1.301E+03	1.951E+06	1.311E+02
2142	4.776E+03	3.824E+06	2.570E+02	1.276E+03	1.912E+06	1.285E+02
2143	4.681E+03	3.749E+06	2.519E+02	1.250E+03	1.874E+06	1.259E+02
2144	4.589E+03	3.674E+06	2.469E+02	1.226E+03	1.837E+06	1.234E+02
2145	4.498E+03	3.602E+06	2.420E+02	1.201E+03	1.801E+06	1.210E+02

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2005	0	0	0	0	0	0
2006	5.088E+02	2.780E+05	1.868E+01	8.170E-01	2.279E+02	1.532E-02
2007	1.472E+03	8.039E+05	5.402E+01	2.363E+00	6.592E+02	4.429E-02
2008	2.402E+03	1.312E+06	8.818E+01	3.857E+00	1.076E+03	7.230E-02
2009	3.123E+03	1.706E+06	1.146E+02	5.015E+00	1.399E+03	9.400E-02
2010	3.689E+03	2.015E+06	1.354E+02	5.924E+00	1.653E+03	1.110E-01
2011	4.143E+03	2.263E+06	1.521E+02	6.652E+00	1.856E+03	1.247E-01
2012	4.619E+03	2.523E+06	1.695E+02	7.416E+00	2.069E+03	1.390E-01
2013	5.084E+03	2.778E+06	1.866E+02	8.164E+00	2.278E+03	1.530E-01
2014	5.605E+03	3.062E+06	2.057E+02	9.000E+00	2.511E+03	1.687E-01
2015	6.206E+03	3.390E+06	2.278E+02	9.965E+00	2.780E+03	1.868E-01
2016	6.716E+03	3.669E+06	2.465E+02	1.078E+01	3.009E+03	2.021E-01
2017	6.837E+03	3.735E+06	2.510E+02	1.098E+01	3.063E+03	2.058E-01
2018	6.927E+03	3.784E+06	2.543E+02	1.112E+01	3.103E+03	2.085E-01
2019	7.035E+03	3.843E+06	2.582E+02	1.130E+01	3.151E+03	2.117E-01
2020	7.140E+03	3.901E+06	2.621E+02	1.147E+01	3.199E+03	2.149E-01
2021	7.244E+03	3.957E+06	2.659E+02	1.163E+01	3.245E+03	2.180E-01
2022	7.345E+03	4.013E+06	2.696E+02	1.179E+01	3.290E+03	2.211E-01
2023	7.445E+03	4.067E+06	2.733E+02	1.195E+01	3.335E+03	2.241E-01
2024	7.542E+03	4.120E+06	2.768E+02	1.211E+01	3.379E+03	2.270E-01
2025	7.638E+03	4.173E+06	2.804E+02	1.226E+01	3.422E+03	2.299E-01
2026	7.732E+03	4.224E+06	2.838E+02	1.241E+01	3.463E+03	2.327E-01
2027	7.823E+03	4.274E+06	2.872E+02	1.256E+01	3.505E+03	2.355E-01
2028	7.913E+03	4.323E+06	2.905E+02	1.271E+01	3.545E+03	2.382E-01
2029	8.002E+03	4.371E+06	2.937E+02	1.285E+01	3.584E+03	2.408E-01
2030	8.088E+03	4.419E+06	2.969E+02	1.299E+01	3.623E+03	2.434E-01
2031	8.173E+03	4.465E+06	3.000E+02	1.312E+01	3.661E+03	2.460E-01
2032	8.256E+03	4.510E+06	3.030E+02	1.326E+01	3.698E+03	2.485E-01
2033	8.338E+03	4.555E+06	3.060E+02	1.339E+01	3.735E+03	2.509E-01
2034	8.417E+03	4.598E+06	3.090E+02	1.352E+01	3.771E+03	2.534E-01
2035	8.496E+03	4.641E+06	3.118E+02	1.364E+01	3.806E+03	2.557E-01
2036	8.572E+03	4.683E+06	3.147E+02	1.376E+01	3.840E+03	2.580E-01
2037	8.648E+03	4.724E+06	3.174E+02	1.389E+01	3.874E+03	2.603E-01
2038	8.721E+03	4.764E+06	3.201E+02	1.400E+01	3.907E+03	2.625E-01
2039	8.793E+03	4.804E+06	3.228E+02	1.412E+01	3.939E+03	2.647E-01
2040	8.864E+03	4.843E+06	3.254E+02	1.423E+01	3.971E+03	2.668E-01
2041	8.934E+03	4.880E+06	3.279E+02	1.434E+01	4.002E+03	2.689E-01
2042	9.002E+03	4.918E+06	3.304E+02	1.445E+01	4.032E+03	2.709E-01
2043	9.068E+03	4.954E+06	3.329E+02	1.456E+01	4.062E+03	2.729E-01
2044	9.134E+03	4.990E+06	3.353E+02	1.467E+01	4.092E+03	2.749E-01
2045	9.198E+03	5.025E+06	3.376E+02	1.477E+01	4.120E+03	2.768E-01
2046	9.261E+03	5.059E+06	3.399E+02	1.487E+01	4.148E+03	2.787E-01
2047	9.322E+03	5.093E+06	3.422E+02	1.497E+01	4.176E+03	2.806E-01
2048	9.383E+03	5.126E+06	3.444E+02	1.507E+01	4.203E+03	2.824E-01
2049	9.442E+03	5.158E+06	3.466E+02	1.516E+01	4.230E+03	2.842E-01
2050	9.500E+03	5.190E+06	3.487E+02	1.525E+01	4.256E+03	2.859E-01
2051	9.557E+03	5.221E+06	3.508E+02	1.535E+01	4.281E+03	2.876E-01
2052	9.612E+03	5.251E+06	3.528E+02	1.543E+01	4.306E+03	2.893E-01
2053	9.667E+03	5.281E+06	3.548E+02	1.552E+01	4.330E+03	2.910E-01
2054	9.720E+03	5.310E+06	3.568E+02	1.561E+01	4.354E+03	2.926E-01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	(m^3/year)	(av ft^3/min)	(Mg/year)	(m^3/year)	(av ft^3/min)
2055	9.773E+03	5.339E+06	3.587E+02	1.569E+01	4.378E+03	2.941E-01
2056	9.824E+03	5.367E+06	3.606E+02	1.577E+01	4.401E+03	2.957E-01
2057	9.875E+03	5.394E+06	3.625E+02	1.586E+01	4.423E+03	2.972E-01
2058	9.924E+03	5.421E+06	3.643E+02	1.594E+01	4.446E+03	2.987E-01
2059	9.972E+03	5.448E+06	3.660E+02	1.601E+01	4.467E+03	3.002E-01
2060	1.002E+04	5.474E+06	3.678E+02	1.609E+01	4.489E+03	3.016E-01
2061	1.007E+04	5.499E+06	3.695E+02	1.616E+01	4.509E+03	3.030E-01
2062	1.011E+04	5.524E+06	3.712E+02	1.624E+01	4.530E+03	3.044E-01
2063	1.016E+04	5.549E+06	3.728E+02	1.631E+01	4.550E+03	3.057E-01
2064	1.020E+04	5.573E+06	3.744E+02	1.638E+01	4.569E+03	3.070E-01
2065	1.024E+04	5.596E+06	3.760E+02	1.645E+01	4.589E+03	3.083E-01
2066	1.029E+04	5.619E+06	3.775E+02	1.652E+01	4.608E+03	3.096E-01
2067	1.033E+04	5.642E+06	3.791E+02	1.658E+01	4.626E+03	3.108E-01
2068	1.037E+04	5.664E+06	3.805E+02	1.665E+01	4.644E+03	3.120E-01
2069	1.041E+04	5.685E+06	3.820E+02	1.671E+01	4.662E+03	3.132E-01
2070	1.045E+04	5.707E+06	3.834E+02	1.677E+01	4.679E+03	3.144E-01
2071	1.048E+04	5.727E+06	3.848E+02	1.683E+01	4.696E+03	3.156E-01
2072	1.052E+04	5.748E+06	3.862E+02	1.689E+01	4.713E+03	3.167E-01
2073	1.056E+04	5.768E+06	3.875E+02	1.695E+01	4.730E+03	3.178E-01
2074	1.059E+04	5.787E+06	3.889E+02	1.701E+01	4.746E+03	3.189E-01
2075	1.063E+04	5.807E+06	3.901E+02	1.707E+01	4.761E+03	3.199E-01
2076	1.066E+04	5.825E+06	3.914E+02	1.712E+01	4.777E+03	3.210E-01
2077	1.070E+04	5.844E+06	3.926E+02	1.718E+01	4.792E+03	3.220E-01
2078	1.073E+04	5.862E+06	3.939E+02	1.723E+01	4.807E+03	3.230E-01
2079	1.076E+04	5.880E+06	3.951E+02	1.728E+01	4.821E+03	3.239E-01
2080	1.079E+04	5.897E+06	3.962E+02	1.733E+01	4.836E+03	3.249E-01
2081	1.083E+04	5.914E+06	3.974E+02	1.738E+01	4.850E+03	3.258E-01
2082	1.086E+04	5.931E+06	3.985E+02	1.743E+01	4.863E+03	3.268E-01
2083	1.089E+04	5.947E+06	3.996E+02	1.748E+01	4.877E+03	3.277E-01
2084	1.092E+04	5.963E+06	4.007E+02	1.753E+01	4.890E+03	3.285E-01
2085	1.094E+04	5.979E+06	4.017E+02	1.757E+01	4.903E+03	3.294E-01
2086	1.073E+04	5.861E+06	3.938E+02	1.723E+01	4.806E+03	3.229E-01
2087	1.052E+04	5.744E+06	3.860E+02	1.688E+01	4.710E+03	3.165E-01
2088	1.031E+04	5.631E+06	3.783E+02	1.655E+01	4.617E+03	3.102E-01
2089	1.010E+04	5.519E+06	3.708E+02	1.622E+01	4.526E+03	3.041E-01
2090	9.903E+03	5.410E+06	3.635E+02	1.590E+01	4.436E+03	2.981E-01
2091	9.707E+03	5.303E+06	3.563E+02	1.559E+01	4.348E+03	2.922E-01
2092	9.515E+03	5.198E+06	3.492E+02	1.528E+01	4.262E+03	2.864E-01
2093	9.326E+03	5.095E+06	3.423E+02	1.498E+01	4.178E+03	2.807E-01
2094	9.142E+03	4.994E+06	3.355E+02	1.468E+01	4.095E+03	2.751E-01
2095	8.961E+03	4.895E+06	3.289E+02	1.439E+01	4.014E+03	2.697E-01
2096	8.783E+03	4.798E+06	3.224E+02	1.410E+01	3.935E+03	2.644E-01
2097	8.609E+03	4.703E+06	3.160E+02	1.382E+01	3.857E+03	2.591E-01
2098	8.439E+03	4.610E+06	3.097E+02	1.355E+01	3.780E+03	2.540E-01
2099	8.272E+03	4.519E+06	3.036E+02	1.328E+01	3.705E+03	2.490E-01
2100	8.108E+03	4.429E+06	2.976E+02	1.302E+01	3.632E+03	2.440E-01
2101	7.947E+03	4.342E+06	2.917E+02	1.276E+01	3.560E+03	2.392E-01
2102	7.790E+03	4.256E+06	2.859E+02	1.251E+01	3.490E+03	2.345E-01
2103	7.636E+03	4.171E+06	2.803E+02	1.226E+01	3.421E+03	2.298E-01
2104	7.484E+03	4.089E+06	2.747E+02	1.202E+01	3.353E+03	2.253E-01
2105	7.336E+03	4.008E+06	2.693E+02	1.178E+01	3.286E+03	2.208E-01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2106	7.191E+03	3.928E+06	2.640E+02	1.155E+01	3.221E+03	2.164E-01
2107	7.049E+03	3.851E+06	2.587E+02	1.132E+01	3.158E+03	2.122E-01
2108	6.909E+03	3.774E+06	2.536E+02	1.109E+01	3.095E+03	2.080E-01
2109	6.772E+03	3.700E+06	2.486E+02	1.087E+01	3.034E+03	2.038E-01
2110	6.638E+03	3.626E+06	2.437E+02	1.066E+01	2.974E+03	1.998E-01
2111	6.507E+03	3.555E+06	2.388E+02	1.045E+01	2.915E+03	1.958E-01
2112	6.378E+03	3.484E+06	2.341E+02	1.024E+01	2.857E+03	1.920E-01
2113	6.252E+03	3.415E+06	2.295E+02	1.004E+01	2.800E+03	1.882E-01
2114	6.128E+03	3.348E+06	2.249E+02	9.839E+00	2.745E+03	1.844E-01
2115	6.006E+03	3.281E+06	2.205E+02	9.645E+00	2.691E+03	1.808E-01
2116	5.887E+03	3.216E+06	2.161E+02	9.454E+00	2.637E+03	1.772E-01
2117	5.771E+03	3.153E+06	2.118E+02	9.266E+00	2.585E+03	1.737E-01
2118	5.657E+03	3.090E+06	2.076E+02	9.083E+00	2.534E+03	1.703E-01
2119	5.545E+03	3.029E+06	2.035E+02	8.903E+00	2.484E+03	1.669E-01
2120	5.435E+03	2.969E+06	1.995E+02	8.727E+00	2.435E+03	1.636E-01
2121	5.327E+03	2.910E+06	1.955E+02	8.554E+00	2.386E+03	1.603E-01
2122	5.222E+03	2.853E+06	1.917E+02	8.385E+00	2.339E+03	1.572E-01
2123	5.118E+03	2.796E+06	1.879E+02	8.219E+00	2.293E+03	1.541E-01
2124	5.017E+03	2.741E+06	1.842E+02	8.056E+00	2.247E+03	1.510E-01
2125	4.918E+03	2.687E+06	1.805E+02	7.896E+00	2.203E+03	1.480E-01
2126	4.820E+03	2.633E+06	1.769E+02	7.740E+00	2.159E+03	1.451E-01
2127	4.725E+03	2.581E+06	1.734E+02	7.587E+00	2.117E+03	1.422E-01
2128	4.631E+03	2.530E+06	1.700E+02	7.436E+00	2.075E+03	1.394E-01
2129	4.540E+03	2.480E+06	1.666E+02	7.289E+00	2.034E+03	1.366E-01
2130	4.450E+03	2.431E+06	1.633E+02	7.145E+00	1.993E+03	1.339E-01
2131	4.362E+03	2.383E+06	1.601E+02	7.003E+00	1.954E+03	1.313E-01
2132	4.275E+03	2.336E+06	1.569E+02	6.865E+00	1.915E+03	1.287E-01
2133	4.191E+03	2.289E+06	1.538E+02	6.729E+00	1.877E+03	1.261E-01
2134	4.108E+03	2.244E+06	1.508E+02	6.596E+00	1.840E+03	1.236E-01
2135	4.026E+03	2.200E+06	1.478E+02	6.465E+00	1.804E+03	1.212E-01
2136	3.947E+03	2.156E+06	1.449E+02	6.337E+00	1.768E+03	1.188E-01
2137	3.868E+03	2.113E+06	1.420E+02	6.211E+00	1.733E+03	1.164E-01
2138	3.792E+03	2.071E+06	1.392E+02	6.088E+00	1.699E+03	1.141E-01
2139	3.717E+03	2.030E+06	1.364E+02	5.968E+00	1.665E+03	1.119E-01
2140	3.643E+03	1.990E+06	1.337E+02	5.850E+00	1.632E+03	1.097E-01
2141	3.571E+03	1.951E+06	1.311E+02	5.734E+00	1.600E+03	1.075E-01
2142	3.500E+03	1.912E+06	1.285E+02	5.620E+00	1.568E+03	1.054E-01
2143	3.431E+03	1.874E+06	1.259E+02	5.509E+00	1.537E+03	1.033E-01
2144	3.363E+03	1.837E+06	1.234E+02	5.400E+00	1.507E+03	1.012E-01
2145	3.296E+03	1.801E+06	1.210E+02	5.293E+00	1.477E+03	9.922E-02

ATTACHMENT B

FORM FF AND CHECK COPY

United States Environmental Protection Agency

OMB No. 2060-0336,
Approval Expires 05/31/2019

Federal Operating Permit Program (40 CFR Part 71)
FEE FILING FORM (FF)

The purpose of this form is to ensure that fee payments made by check are credited to the proper facility and to the proper government account. Send this form, along with form **FEE** and the check, to the appropriate lockbox bank address listed on the following page. This form is required whenever you pay by check, including for initial and annual fee payments. Part 71 fees may be paid by check or electronically, and further information on making payments by check or electronically is provided on the following page.

Source or Facility Name Tekoi Landfill

Source Location Skull Valley Indian Reservation, Tooele County, Utah

EPA Region where Source Located Region 8

Mailing Address:

Street/P.O. Box 6976 West California Avenue

City Salt Lake City

State UT ZIP 84104 - _____

Contact Person: Mark Franc

Title: Senior District Manager

Telephone (801) 726 - 7052 Ext. _____

Total Fee Payment Remitted: $ 834.40

SCS ENGINEERS

3900 Kilroy Airport Way, Suite 100
Long Beach, CA 90806-6816
1-800-767-4727

MUFG UNION BANK, N.A.
445 Figueroa Street
Los Angeles, CA 90071

16-49
1220

313827
CHECK DATE
March 29, 2019

PAY Eight Hundred Thirty Four and 40/100 Dollars

AMOUNT 834.40

TO US ENVIRONMENTAL PROTECTION AGENCY REGION 8
1595 Wynkoop Street (8P-AR)
Denver, CO 80202-1129

TWO SIGNATURES REQUIRED OVER FIVE THOUSAND DOLLARS
VOID IF NOT CASHED IN 90 DAYS

Nada Harlow

⑈313827⑈ ⑆122000496⑆ 5320121487⑈

S C S ENGINEERS

313827

Check Date: 3/29/2019

Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
03/29/19 Permit Fee	3/29/2019	0175721	834.40			834.40
US ENVIRONMENTAL PROTECTION		TOTAL	834.40			834.40
Union Bank-Accts Payable	1	0133800				