Form 4 - Biopile Visual Inspection Form

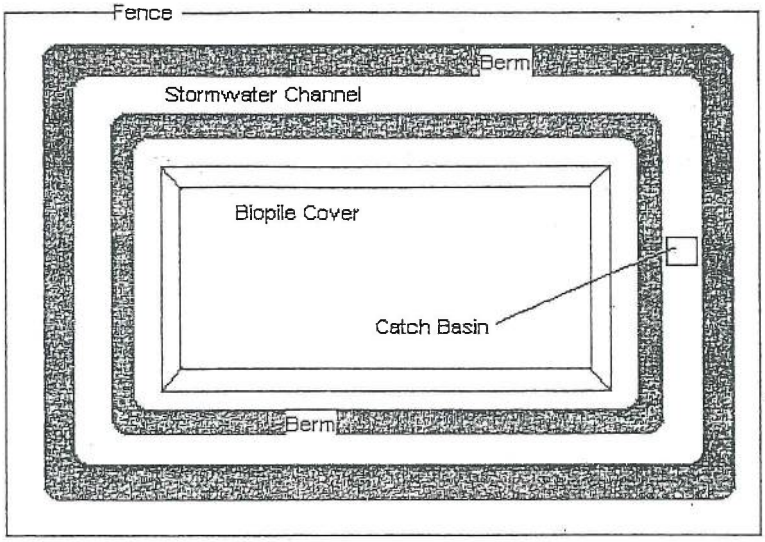
Bristol-Myers Squibb Manufacturing Company

Date: 12/04/13

Time: 1200

Inspected by: J. Toro

Non Mechanical Equipment



Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity

OK

Non Mechanical Equipment, General Observations: Lixiviado = 19".

Se removieron por CHED 2,000 gls Hacia el T-901.

Nivel final = 5".

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower #2 on

Valves OK

Gauges Temp = 38°C

Press = 20" H_2O

Sump Pump

OK

Form 4 - Biopile Visual Inspection Form

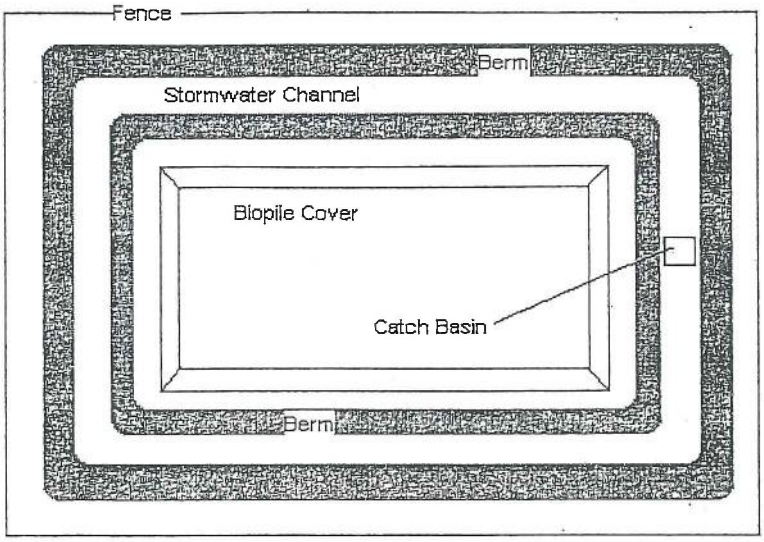
Bristol-Myers Squibb Manufacturing Company

Date: 12/06/13

Time: 0830

Inspected by: J Toro

Non Mechanical Equipment



Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity ok

Non Mechanical Equipment, General Observations: Leachate = 7"

Berms

Integrity of toe ok

Integrity of crest ok

Mechanical Equipment

Blower #2 on

Valves ok

Gauges Temp = 40°C
Press = 20" H_2O

Sump Pump ok

Form 4 - Biopile Visual Inspection Form

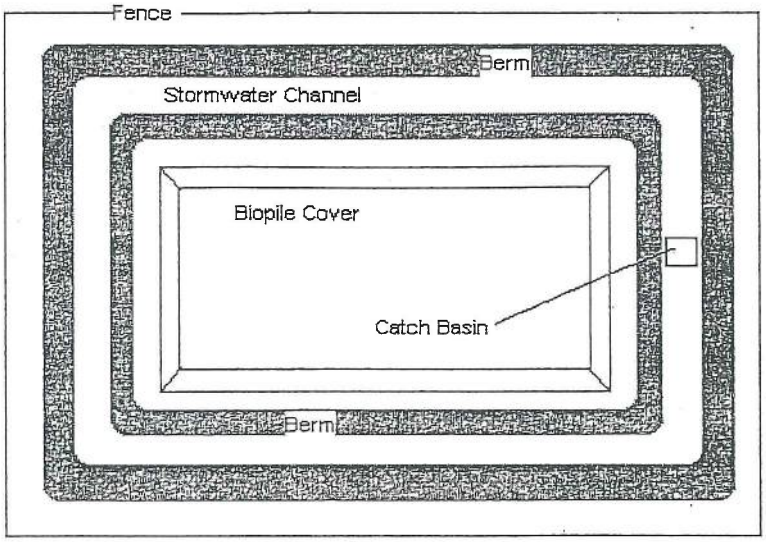
Bristol-Myers Squibb Manufacturing Company

Date: 12/09/13

Time: 1700

Inspected by: J. Toro

Non Mechanical Equipment



Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity

OK

Non Mechanical Equipment, General Observations: Liquids = 9"

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower Blower #2 ON

Valves OK

Gauges Temp = 40 °C

Press = 20" H_2O

Sump Pump OK

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 12/13/13

Time: 1015

Inspected by: E. Barreto

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

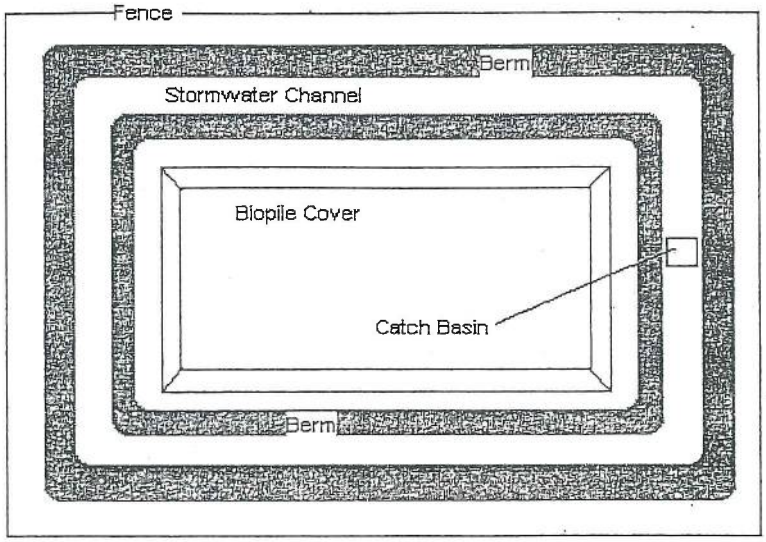
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations:

Lixiviado en 10"

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower No. 2 ON

Valves OK

Gauges Temperatura en 42°C

Presión 20" H_2O

Sump Pump OK

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: Dec. 13, 2013

Time: 3:30 PM

Inspected by: D. Lindstrand

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

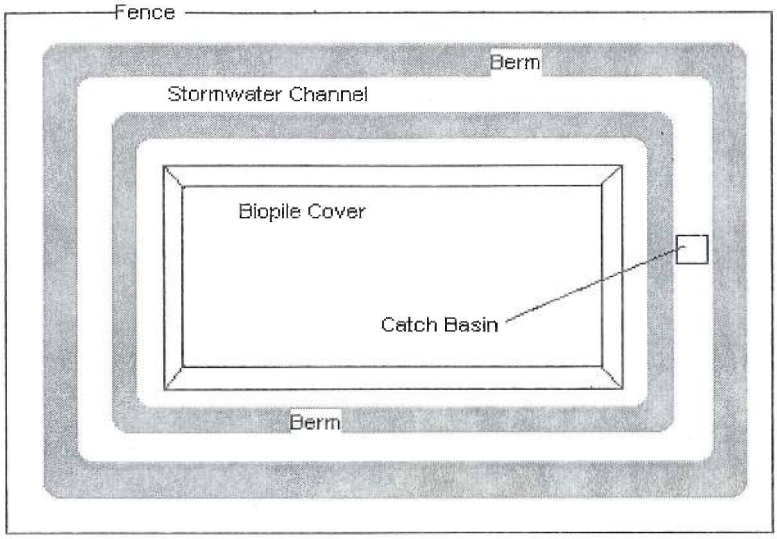
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations: Leachate level 15 inches

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower Blower No. 2 running

Valves Changed aeration values at BV-2, 6, 8, 9, 10, 24, 26

Gauges Final Readings: P1 = 30 in. w.c., T1 = 47°C
P2 = 32 in w.c., T2 = 46°C

Sump Pump OK

Form 3 - Soil Gas Monitoring Form

Bristol-Myers Squibb Manufacturing Company

Date: Dec. 13, 2013

Sampled by: D. Lindstrand

Date and time blower switched off (if respiration test): Blower No. 2 Running

Monitoring Point ID	Time	~~O_2 (%)~~ CH4 (%)	CO_2 (%)	~~Flam. (ppmv)~~ O2 (%)	~~H2S (%)~~ Bal (%)	PID (ppmv)
SG-1	2:30	0.7	0.3	18.6	80.4	NA
SG-2	2:35 2:40	0.8 2.6	5.1 2.2	12.0 16.6	81.7 78.5	
SG-3	2:45	1.9	0.1	18.5	79.6	
SG-4	2:50	2.1	17.9	1.4	78.6	
SG-5	Water					
SG-6	2:05	3.0	4.7	14.6	77.6	
SG-7	2:25 3:15	1.8 0.5	1.0 1.0	18.0 18.1	79.3 80.4	
SG-8	3:00	0.9	2.2	15.8	81.1	
SG-9	2:00	0.0	1.0	18.7	80.3	
SG-10	2:15	8.5	2.4	17.4	71.6	
SG-11	2:20	4.1	11.7	4.3	79.6	
SG-12	3:10	1.3	20.0	0.7	78.1	
Average value						

Comments/Observations:

Bristol-Myers Squibb Company

Global Engineering

Interim Corrective Measure, Building 5 Area Project

Aeration Leg Flow Adjustment Using Dwyer Series 471 Thermo-Anemometer

Date and Time: Dec. 13, 2013, 3:15 PM

Valve Tag No.	Velocity Meas. (fpm)	Air Flow (cfm)	
BV-1	0	0.0	
BV-2	0	0.0	
BV-3	0	0.0	
BV-4	310	7.1	
BV-5	0	0.0	
BV-6	0	0.0	
BV-7	226	5.2	
BV-8	0	0.0	
BV-9	0	0.0	
BV-10	0	0.0	
BV-11	277	6.3	
BV-12	418	9.6	
BV-13	361	8.3	
BV-14	1326	30.3	
BV-15	536	12.3	
BV-16	799	18.3	
BV-17	933	21.4	
BV-18	853	19.5	
BV-19	402	9.2	
BV-20	1350	30.9	Water
BV-21	233	5.3	
BV-22	383	8.8	
BV-23	0	0.0	
BV-24	0	0.0	
BV-25	0	0.0	
BV-26	0	0.0	
BV-27	0	0.0	

Total air flow (acfm) 192.4

Blower No. 1 Header:

30 in.wc., 47 deg C

Blower No. 2 Header:

32 in.wc., 46 deg C

Notes: Final measurements after aeration valve adjustments at valves BV-2,6,8,9,10,24,26.
Blower No. 2 Operating

Bristol-Myers Squibb Company

Global Engineering

Interim Corrective Measure, Building 5 Area Project

Aeration Leg Flow Adjustment Using Dwyer Series 471 Thermo-Anemometer

Date and Time: Dec. 13, 2013, 1:30 PM

Valve Tag No.	Velocity Meas. (fpm)	Air Flow (cfm)	
BV-1	0	0.0	
BV-2	293	6.7	
BV-3	0	0.0	
BV-4	233	5.3	
BV-5	0	0.0	
BV-6	411	9.4	
BV-7	206	4.7	
BV-8	291	6.7	
BV-9	711	16.3	
BV-10	266	6.1	
BV-11	239	5.5	
BV-12	364	8.3	
BV-13	325	7.4	
BV-14	1189	27.2	
BV-15	421	9.6	
BV-16	655	15.0	
BV-17	749	17.1	
BV-18	693	15.9	
BV-19	312	7.1	
BV-20	395	9.0	Water
BV-21	165	3.8	
BV-22	283	6.5	
BV-23	0	0.0	
BV-24	194	4.4	
BV-25	0	0.0	
BV-26	232	5.3	
BV-27	0	0.0	

Total air flow (acfm) 197.4

Blower No. 1 Header:

18 in.wc., 43 deg C

Blower No. 2 Header:

19 in.wc., 42 deg C

Notes: Initial measurements prior to aeration valve adjustments.
Blower No. 2 Operating

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 12/17/13

Time: 1300

Inspected by: J. Toro

Non Mechanical Equipment

Cover

Exposed soil Yes / (No)

Rips/tears Yes / (No)

Ropes/boards secure (Yes) / No

if yes to any above indicate on drawing

Fence

Damaged Yes / (No)

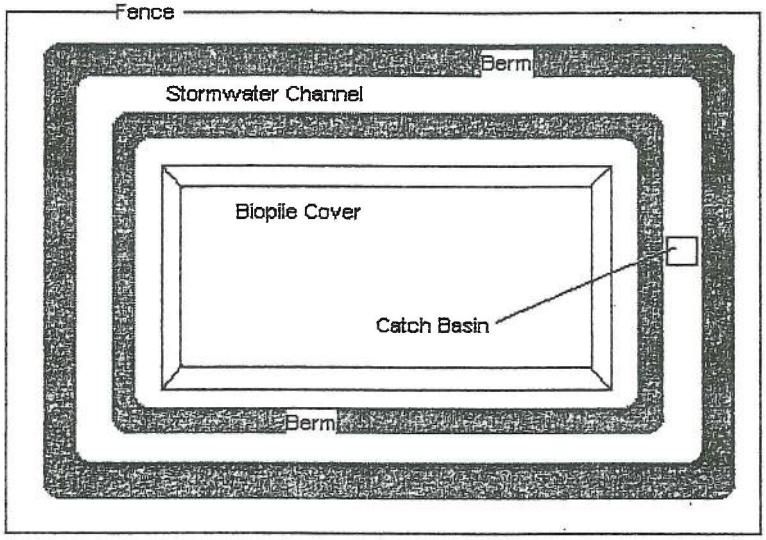
Holes Yes / (No)

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / (No)

Integrity ok



Non Mechanical Equipment, General Observations: Lixivlodo = 13"

Berms

Integrity of toe ok

Integrity of crest ok

Mechanical Equipment

Blower #2 is on

Valves OK

Gauges Press = 32" H_2O

Temp = 46° C

Sump Pump ok

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 12/19/13

Time: 1330

Inspected by: JO

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

Holes Yes / No

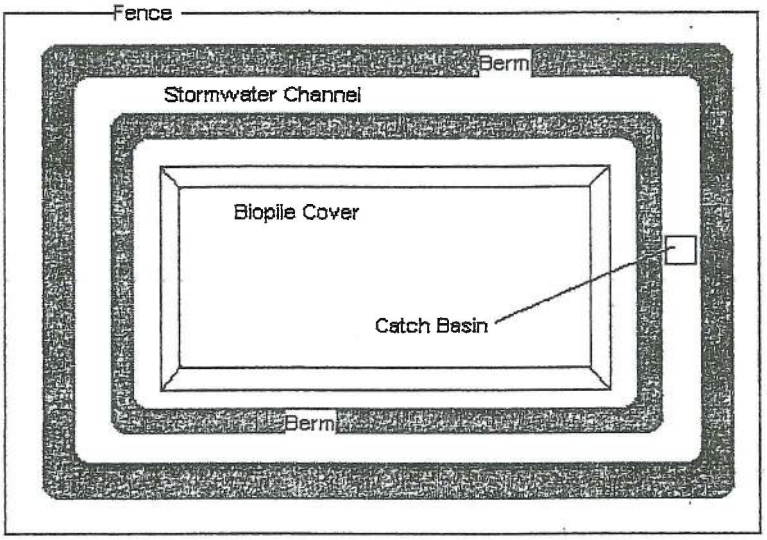
if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity

OK



Non Mechanical Equipment, General Observations: Lixiviate = 14"

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower #2 ON

Valves OK

Gauges Press = 32" H_2O

Temp = 47°C

Sump Pump OK

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 12-23-12

Time: 0830

Inspected by: [illegible]

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

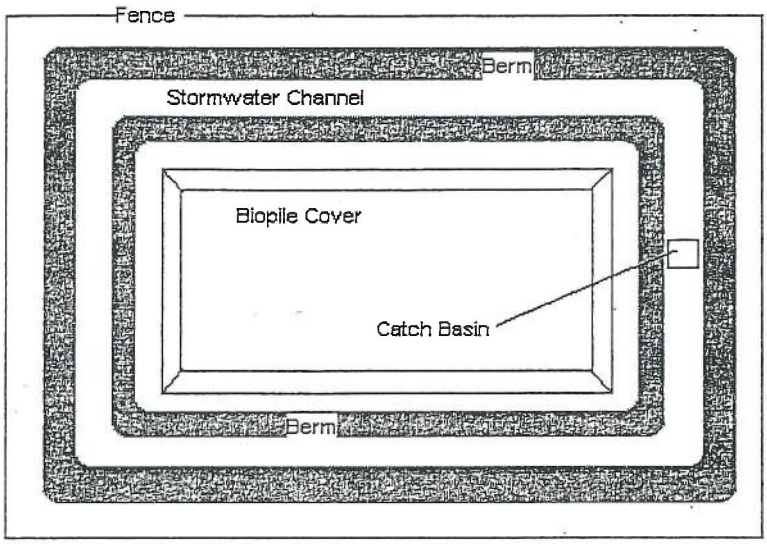
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations: Lixiviado 15", se dejó en cero pulgada

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower #2 on

Valves OK

Gauges Temp - 40°C, Presion - 30" H_2O

Sump Pump OK

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 12-26-13

Time: 1230

Inspected by: [illegible] / E. Barreto

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

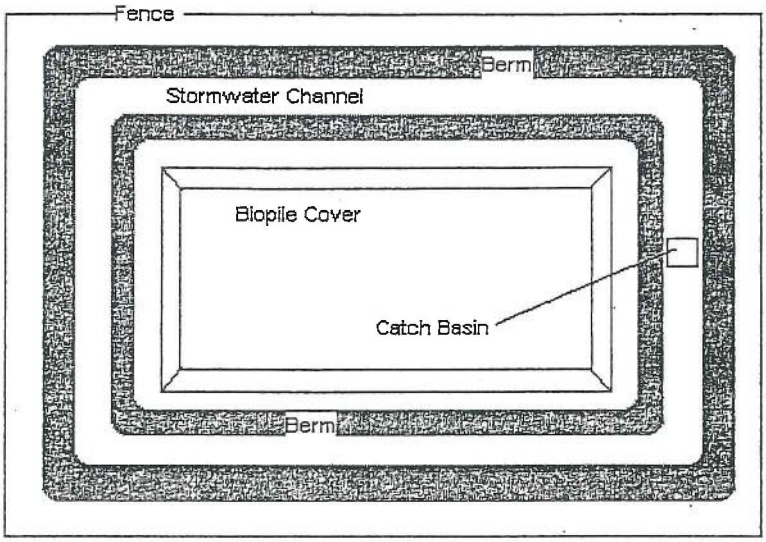
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations:

Lixiviado 6"

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower #2 ON * Se encontró el blower apagado, se encendió y se dejo en servicio.

Valves OK

Gauges 42" H_2O presión

44" temperatura

Sump Pump OK

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: Dec. 30, 2013

Time: 2 PM

Inspected by: D. Lindstrand

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

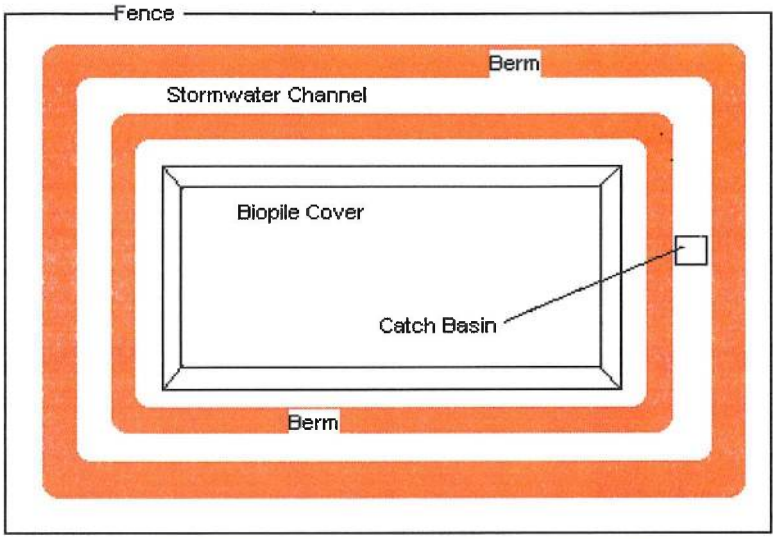
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations:

Performed soil gas concentration measurements at gas probes, and checked air flows into aeration pipes

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower Blower No. 2 operating

Valves No changes were made

Gauges P1 = 30 in. w.c., T1 = 45°C
P2 = 32 in. w.c., T2 = 45°C

Sump Pump Not checked.

Form 3 - Soil Gas Monitoring Form

Bristol-Myers Squibb Manufacturing Company

Date: Dec. 30, 2013

Sampled by: D. Lindstrand

Date and time blower switched off (if respiration test): Blower No. 2 operational

Monitoring Point ID	Time	~~O_2 (%)~~ CH4 (%)	CO_2 (%)	~~Elam. (ppmv)~~ O2 (%)	~~H2S (%)~~ Bal (%)	PID (ppmv)
SG-1	12:00	0.1	0.1	19.4	80.4	NA
SG-2	12:03	4.5	1.7	17.6	76.2	
SG-3	12:10	0.3	0.0	19.2	80.5	
SG-4	12:12	2.0	17.3	2.2	78.5	
SG-5	10:55	0.0	2.6	16.3	81.0	
SG-6	11:16	2.5	4.3	15.1	78.1	
SG-7	11:56	0.1	0.5	19.1	80.3	
SG-8	12:16	0.2	3.0	16.5	80.4	
SG-9	11:01	0.0	0.5	19.3	80.2	
SG-10	11:10	1.3	1.9	18.1	78.7	
SG-11	11:20	4.5	9.4	7.8	78.3	
SG-12	12:20	1.4	19.0	1.3	78.4	
Average value						

Comments/Observations: NA = Not analyzed

Bristol-Myers Squibb Company

Global Engineering

Interim Corrective Measure, Building 5 Area Project

Aeration Leg Flow Adjustment Using Dwyer Series 471 Thermo-Anemometer

Date and Time: Dec. 30, 2013, 1:05 PM

Valve Tag No.	Velocity Meas. (fpm)	Air Flow (cfm)	
BV-1	0	0.0	
BV-2	0	0.0	
BV-3	0	0.0	
BV-4	344	7.9	
BV-5	0	0.0	
BV-6	0	0.0	
BV-7	270	6.2	
BV-8	0	0.0	
BV-9	0	0.0	
BV-10	0	0.0	
BV-11	335	7.7	
BV-12	466	10.7	
BV-13	442	10.1	
BV-14	1453	33.3	
BV-15	577	13.2	
BV-16	792	18.1	
BV-17	926	21.2	
BV-18	829	19.0	
BV-19	424	9.7	
BV-20	1350	30.9	Water
BV-21	555	12.7	
BV-22	483	11.1	
BV-23	0	0.0	
BV-24	0	0.0	
BV-25	0	0.0	
BV-26	0	0.0	
BV-27	0	0.0	

Total air flow (acfm) 211.6

Blower No. 1 Header:

30 in.wc., 45 deg C

Blower No. 2 Header:

32 in.wc., 45 deg C

Blower No. 2 Operating