Addendum #6

Patton's Busy Bee Disposal Site

Town of Alfred, Allegany County, New York
Town of Hartsville, Steuben County, New York

Site No. 902014

REVISED OPERATION AND MAINTENANCE MANUAL

Section 5.1 Groundwater Sampling and Analysis

February 2008

Prepared by:
Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, New York

The following revision is made to the Operations and Maintenance (O&M) Plan dated September 1997 with subsequent revisions by addenda in 1999, 2000, 2001, 2002 and 2004. The Record of Decision (ROD) for the Patton's Busy Bee Disposal Site dated October 1996 requires long term groundwater sampling of the site's monitoring wells. Section 5 of the O&M Plan requires annual sampling of the site monitoring wells. Data collected over the last 11 years of groundwater sampling indicated that site related contaminant levels remain at a generally steady concentration with the contaminant level slightly above groundwater standards. Therefore, the groundwater sampling of the site monitoring well frequency will be revised to a biennial (every two years) event. The next round of groundwater sampling will occur in the fall of 2009 and every two years thereafter.

The yearly O&M Reports can be found at the Town of Alfred Town Hall and the New York State Department of Environmental Conservation at 270 Michigan Avenue Buffalo New York.

The first paragraph of Section 5.1 of the O&M paln is revised as follows:

Section 5.1 Groundwater Monitoring

Thirteen site monitoring wells will be sampled biennially (Table 3). These wells were selected due to their distribution around the landfill and the sandstone layers that they monitor (D and E). Analytical results obtained from these wells will provide an early warning system for residential wells. As stated previously, most residential wells are drilled into sandstone E or deeper. The next groundwater sampling event will occur in the fall of 2009 and every two years thereafter.

Addendum #5

Patton's Busy Bee Disposal Site

Town of Alfred, Allegany County, New York
Town of Hartsville, Steuben County, New York

Site No. 902014

REVISED OPERATION AND MAINTENANCE MANUAL

February 2004

Prepared by:
Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, New York

The following revision is made to the Operations and Maintenance (O&M) Plan dated September 1997 with subsequent revisions by addenda in 1999, 2000, 2001 and 2002. The approved O&M Plan required 3 years of residential well monitoring. The requirements of the ROD have been met. No evidence of Patton's Busy Bee site related contaminants have been detected in any residential water supply well during this monitoring program.

The yearly O&M Reports can be found at the Town of Alfred Town Hall and the New York State Department of Environmental Conservation at 270 Michigan Avenue Buffalo New York.

Section 5.2 Residential Wells

Residential Well sampling is being phased out with the final sampling event scheduled for the Fall of 2005. The residential well sampling schedule is as follows:

Year	Residential Wells Address
2004	5633 Clark Rd, 5637 Clark Rd, 5629 Clark Rd, 5771 Clark Rd, 5545 Crosby Creek Rd, and 242 Hartsville Hill Rd
2005	5633 Clark Rd,, 5637 Clark Rd, 5629 Clark Rd, 5583 Crosby Creek Rd, 5503 Hartsville Hill Rd, 266 Hartsville Hill Rd and 5524 Crosby Creek Rd.

After the completion of the 2005 sampling of the private residential water supply wells will be discontinued..

Addendum #4

Patton's Busy Bee Disposal Site

Town of Alfred, Allegany County, New York
Town of Hartsville, Stueben County, New York

Site No. 902014

REVISED OPERATION AND MAINTENANCE MANUAL

February 2002

Prepared by:
Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo

The following revision is made to the Operations and Maintenance (O&M) Plan dated September 1997 with subsequent revisions by addenda in 1999, 2000 and 2001.

The yearly O&M Reports can be found at the Town of Alfred Town Hall and the New York State Department of Environmental Conservation at 270 Michigan Avenue Buffalo New York.

Section 5.2 Residential Wells

Residential Well sampling frequency has been changed to the following schedule beginning with the fall 2002 sampling event:

Year	Residential Wells Address
2002	5633 Clark Rd, 5637 Clark Rd, 5771 Clark Rd, 5535 Crosby Creek Rd and 242 Hartsville Hill Rd
2003	5633 Clark Rd,, 5637 Clark Rd, 5583 Crosby Creek Rd, 5503 Hartsville Hill Rd and 266 Hartsville Hill Rd

After the completion of the 2003 sampling event the frequency of residential well sampling will again be reviewed and revised as appropriate.

The home located at 5629 Clark Road was destroyed during the spring of 2001.
A new residential drinking well was installed at 5637 Clark Road during 2001.

Appendix D Annual Report Distribution

Remove:

Ms. Mary Jane Peachey
NYSDEC Div. Env. Rem.
Region 8 Office
6274 East Avon Lima Road
Avon, NY 14414

and,

Mr. Terry L. Towner
P.O. Box F
Addison, NY 14801

Addendum #3

Patton's Busy Bee Disposal Site

Town of Alfred, Allegany County, New York
Town of Hartsville, Stueben County, New York

Site No. 902014

REVISED OPERATION AND MAINTENANCE MANUAL

February 2001

Prepared by:
Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo

The following revision is made to the Operations and Maintenance (O&M) Plan dated September 1997 with subsequent revisions by addenda in 1999 and 2000.

The yearly O&M Reports can be found at the Town of Alfred Town Hall and the New York State Department of Environmental Conservation at 270 Michigan Avenue Buffalo New York.

Appendix D Annual Report Distribution

Replace Mr. Michael Kadlec with:

Ms. Charlotte Bethoney
NYSDOH BEEI
Flanigan Square, Room 300
547 River Street
Troy, New York 12180

Addendum #2

Patton's Busy Bee Disposal Site

Town of Alfred, Allegany County, New York
Town of Hartsville, Stueben County, New York

Site No. 902014

REVISED OPERATION AND MAINTENANCE MANUAL

March 2000

Prepared by:
Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo

The following revisions are made to the Operations and Maintenance (O&M) Plan dated September 1997. These revisions are based on the performance of the O&M activity over the past 3 years as reported in the Annual O&M Reports dated January 1998, February 1999 and February 2000. The yearly O&M Reports can be found at the Town of Alfred Town Hall and the New York State Department of Environmental Conservation at 270 Michigan Avenue Buffalo New York.

Section 5 Groundwater Monitoring

Section 5.1 Groundwater Sampling and Analysis

Site monitoring wells MW-107S and MW-107I were replaced in November 1999 with monitoring wells MW-107SR and MW-107IR. Refer to report dated 11/17/99 by URS Greiner Woodward Clyde Consultants for well construction details. Refer to Table 3 for list of Long Term Monitoring Wells.

Section 5.2 Residential Wells

The analytical method for the analysis of samples collected from the residential wells has been changed to EPA method 502.2 to allow for lower analytical detection limits.

Residential Well sampling frequency has been changed to the following schedule beginning with the fall 2000 sampling event:

Year	Residential Wells Address
2000	5633 Clark Rd, 5771 Clark Rd, 5535 Crosby Creek Rd and 242 Hartsville Hill Rd
2001	5633 Clark Rd, 5629 Clark Rd, 5583 Crosby Creek Rd, ~~4403~~ 5503 Hartsville Hill Rd and 266 Hartsville Hill Rd
2002	5633 Clark Rd, 5771 Clark Rd, 5535 Crosby Creek Rd and 242 Hartsville Hill Rd
2003	5633 Clark Rd, 5629 Clark Rd, 5583 Crosby Creek Rd, 4403 Hartsville Hill Rd and 266 Hartsville Hill Rd

After the completion of the 2003 sampling event the frequency of residential well sampling will again be reviewed and revised as appropriate.

Appendix D Annual Report Distribution

Replace Mr. Richard Tuers with:

Mr. Michael Kadlec
NYSDOH BEEI
Flanigan Square, Room 300
547 River Street
Troy, New York 12180

Table 3
Revised
Patton's Busy Bee Disposal Site
Long-Term Monitoring Wells

Monitoring Well	Sandstone Unit Monitored
MW-101D	D
MW-101I	C
MW-102D	D
MW-103D	E
MW-103I	D
MW-104D	E
MW-104I	D
MW-107IR	E
MW-107SR	D
MW-108D	E
MW-108I	D
MW-109	E
MW-113	E

GREINER WOODWARD CLYDE
2 Delaware Avenue
Buffalo, New York 14202 (716)-856-5636 FAX: (716) 856-2545

Letter of Transmittal

To: William Welling
NYSDEC – Div of Env. Remediation
50 Wolf Road
Albany, New York 12233-7010

Date: 11/17/99 Job No.: 05-35703.02

Re: Busy Bee Landfill

PLEASE REFER TO THE TRANSMITTAL NUMBER ON ALL FUTURE CORRESPONDENCE

We are sending you ■ Attached ☐ Under Separate Cover the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Specifications
☐ Copy of letter ☐ Change Order ☐

COPIES	DRAWING NO.	DATE	DESCRIPTION
2		11/10/99 11/11/99	Monitoring Well Construction Details

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ No Exceptions Taken ☐ Resubmit ____ copies for approval
■ For your use ☐ Revise as Noted ☐ Submit ____ copies for distribution
☐ As requested ☐ Amend and Resubmit ☐ Return ____ corrected prints
☐ For review and comment ☐ Rejected - See Remarks ☐ _____
☐ FOR BIDS DUE _____ 19 ____ ☐ PRINTS RETURNED AFTER LOAN TO US

Remarks: If you have any questions, please call John Doerr or myself.

Copies to: Michael Hinton, P.E., NYSDEC, Region 9
John Doerr, URSGWC
File: 35703.02 (C-1)

Charles E. Dusel, Jr.
Project Manager

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LLING SUMMARY

eologist:
John Doerr

Drilling Company:
Buffalo Drilling Co.

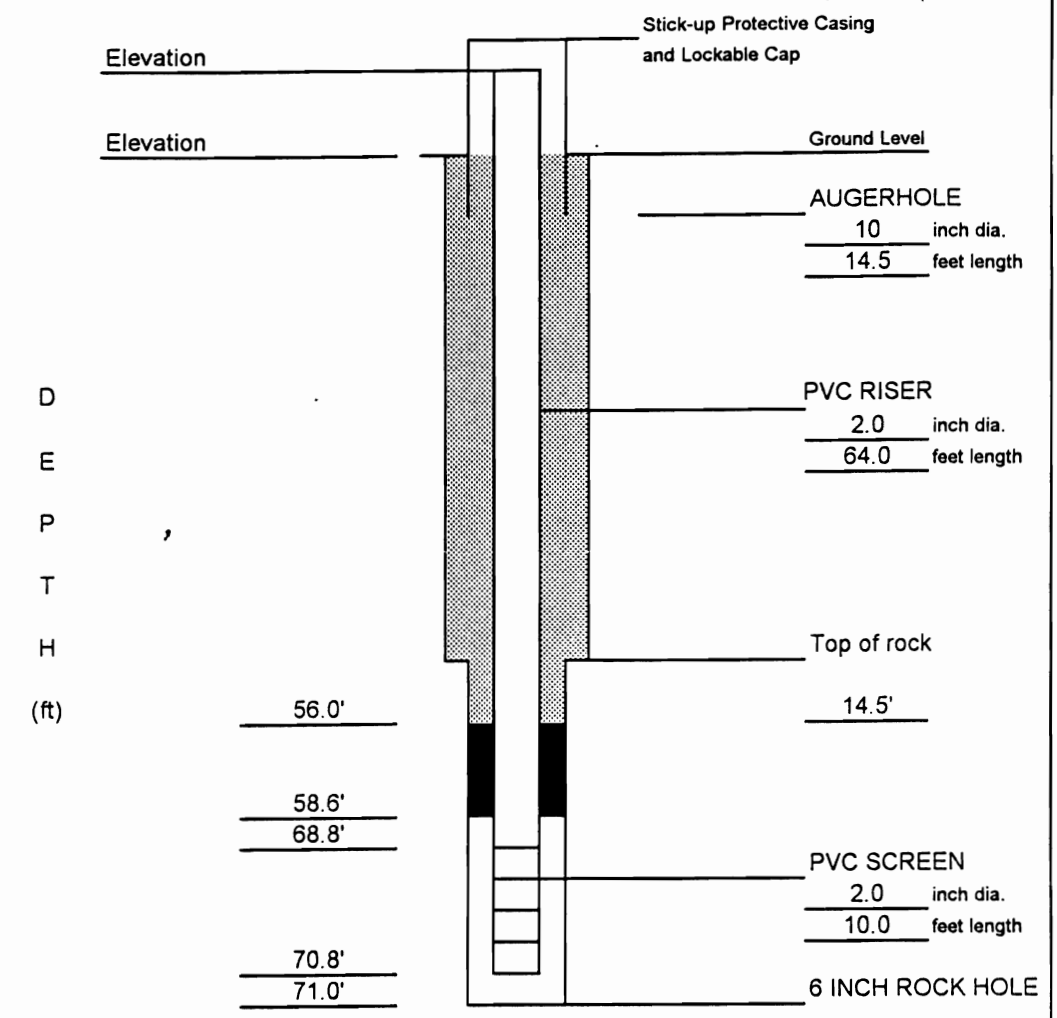
Driller:
Joe Gardner

Rig Make/Model:
CME 75

Date:
11/11/99

GEOLOGIC LOG

Depth(ft.)	Description
0-14.0	Silty clay and angular, broken sandstone fragments, some sand, dry
145.-21.0	Gray shale, dry
21.0-25.0	Gray sandstone, dry
25.0-48.5	Gray shale, wet
48.5-50.0	Gray sandstone
50.0-53.5	Gray shale
53.5-55.0	Gray sandstone
55.0-58.5	Gray shale
58.5-60.0	Gray sandstone
60.0-63.0	Gray shale
63.0-64.5	Gray sandstone
64.5-67.0	Gray shale
67.0-68.5	Gray sandstone
68.5-71.0	Gray shale



Not to Scale

WELL DESIGN

CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel stick-up - 4 inch ID	Type: 2 inch ID-Sch. 40 PVC	Type: #1 NSF silica sand Setting: 58.6'-70.8'
Monitor: 2 inch ID-Sch. 40 PVC	Slot Size: 0.010, 10 slot	SEAL MATERIAL Type: Portland and Bentonite Grout Setting: 0.0'-56.1' Type: Bentonite Chips Setting: 56.1'-58.6'

COMMENTS:
No rock core recovered, reamed with 5 7/8"rolle r bit to 71.0' BGS
* see MW-107I boring log for complete description.

ROCK CORING

Cored Interval:	None
Core Diameter:	None
Reamed Diameter:	5 7/8"

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: NYSDEC	Location: Patton's Busy Bee Disposal	Proje ct No. 35703.02
URS Greiner, Inc.	MONITORING WELL CONSTRUCTION DETAILS	Well Number: MW-107IR

LLING SUMMARY

eologist:
John Doerr

Drilling Company:
Buffalo Drilling Co.

Driller:
Joe Gardner

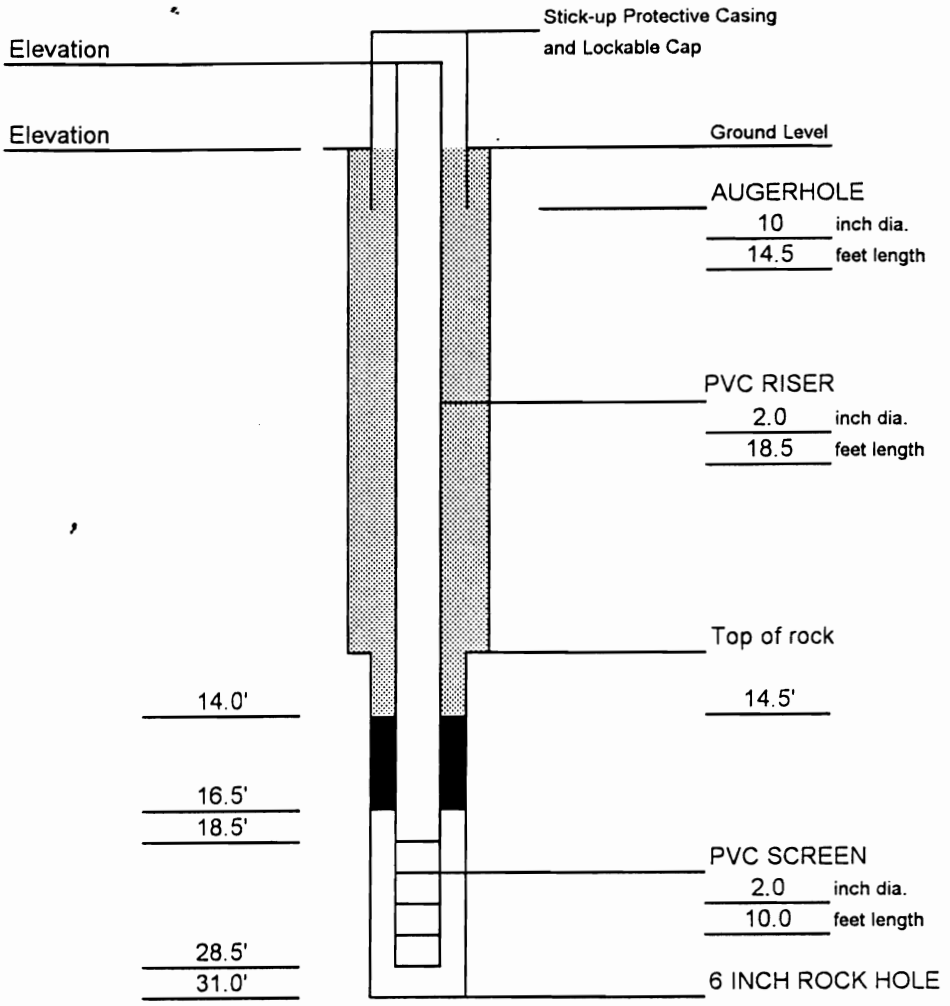
Rig Make/Model:
CME 75

Date:
11/10/99

GEOLOGIC LOG

Depth(ft.)	Description
0-14.0	Silty clay and angular, broken sandstone fragments, some sand,dry
145.-21.0	Gray shale, dry
21.0-25.0	Gray sandstone, dry
25.0-31.0	Gray shale, dry

D E P T H (ft)



Not to Scale

WELL DESIGN

CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel stick-up - 4 inch ID	Type: 2 inch ID-Sch. 40 PVC	Type: #1 NSF silica sand Setting: 16.5'-28.5'
Monitor: 2 inch ID-Sch. 40 PVC	Slot Size: 0.010, 10 slot	SEAL MATERIAL Type: Portland and Bentonite Grout Setting: 0.0'-14.0' Type: Bentonite Chips Setting: 16.5'-14.0'

COMMENTS:
No rock core recovered, reamed with 5 7/8" roller bit to 31.0'.
* see MW-107S boring log for complete description.

ROCK CORING

Cored Interval:	None
Core Diameter:	None
Reamed Diameter:	5 7/8"

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: NYSDEC | **Location:** Patton's Busy Bee Disposal | **Proje ct No.** 35703.02

URS Greiner, Inc.

MONITORING WELL CONSTRUCTION DETAILS

Well Number: MW-107SR

902014
Comes file

URS GREINER WOODWARD CLYDE
282 Delaware Avenue
Buffalo, New York 14202 (716)-856-5636 FAX: (716) 856-2545

RECEIVED
NOV 24 1999
NYSDEC - REG. 9
FILE

Letter of Transmittal

To: William Welling
NYSDEC – Div of Env. Remediation
50 Wolf Road
Albany, New York 12233-7010

Date: 11/23/99 Job No.: 05-35703.02

Re: Busy Bee Landfill

PLEASE REFER TO THE TRANSMITTAL NUMBER ON ALL FUTURE CORRESPONDENCE_____

We are sending you ■ Attached ☐ Under Separate Cover the following items:

☐ Shop Drawings ☐ Prints ☐ Plans ☐ Specifications
☐ Copy of letter ☐ Change Order ☐

COPIES	DRAWING NO.	DATE	DESCRIPTION
2		11/12/99	Well Development Log MW-107SR and MW-1071R

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ No Exceptions Taken ☐ Resubmit ____ copies for approval
■ For your use ☐ Revise as Noted ☐ Submit ____ copies for distribution
☐ As requested ☐ Amend and Resubmit ☐ Return ____ corrected prints
☐ For review and comment ☐ Rejected - See Remarks ☐ _____
☐ FOR BIDS DUE _____ 19 ____ ☐ PRINTS RETURNED AFTER LOAN TO US

Remarks: If you have any questions, please call John Doerr or myself.

Copies to: Michael Hinton, P.E., NYSDEC, Region 9
John Doerr, URSGWC
File: 35703 (C-1)

Charles E. Dusel, Jr.
Project Manager

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WELL DEVELOPMENT LOG

URS Greiner

PROJECT TITLE: Patton's Busy Bee Disposal WELL NO.: MW-107SR

PROJECT NO.: 35703 Page: 1 of 1

STAFF: John Doerr

DATE(S): 11/12/99

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	31.44	1"	0.0
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	14.68	2"	0.2
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	16.76	3"	0.4
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.7
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	2.85	5"	1.0
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x ___)	=	---	6"	1.5
7. VOLUME OF WATER REMOVED (GAL.)	=	60	8"	2.6

OR

$V=0.0408 \times (\text{CASING DIAMETER})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)										
PARAMETERS	2.5	5	10	15	20	25	40	50	60		
pH	8.62	7.92	7.60	7.42	7.13	7.15	6.83	6.82	6.86		
SPEC. COND. (mS)	4.12	3.26	3.05	2.93	2.91	2.88	2.85	2.86	2.9		
TEMPERATURE (°C)	9.3	9.7	9.7	9.8	9.6	9.6	9.7	9.7	9.6		
TURBIDITY (NTU)	>1000	>1000	>1000	>100	>100	>100	103	98.0	46		

COMMENTS: Monitoring well devceloped using Grundfos submersible pump and dedicated HDPE tubing.

WELL DEVELOPMENT LOG

URS Greiner

PROJECT TITLE: Patton's Busy Bee Disposal WELL NO.: MW-107IR

PROJECT NO.: 35703 Page: 1 of 1

STAFF: John Doerr

DATE(S): 11/12/99

			WELL ID.	VOL. (GAL/FT)
1. TOTAL CASING AND SCREEN LENGTH (FT.)	=	73.96	1"	0.0
2. WATER LEVEL BELOW TOP OF CASING (FT.)	=	55.26	2"	0.2
3. NUMBER OF FEET STANDING WATER (#1 - #2)	=	18.70	3"	0.4
4. VOLUME OF WATER/FOOT OF CASING (GAL.)	=	0.17	4"	0.7
5. VOLUME OF WATER IN CASING (GAL.)(#3 x #4)	=	3.18	5"	1.0
6. VOLUME OF WATER TO REMOVE (GAL.)(#5 x ___)	=	---	6"	1.5
7. VOLUME OF WATER REMOVED (GAL.)	=	5	8"	2.6

OR

$V=0.0408 \times (\text{CASING DIAMETER})^2$

	ACCUMULATED VOLUME PURGED (GALLONS)										
PARAMETERS	2.5	5	10	15	20	25	30	35	40	45	50
pH	6.42	6.34									
SPEC. COND. (mS)	3.57	4.5									
TEMPERATURE (°C)	12.0	13.3									
TURBIDITY (NTU)	>1000	>1000									

COMMENTS: Monitoring well de veloped using a Grundfoe submersilbe pump and dedicated HDPE tubing. Well purged 5 gallons and was dry; water lvels taken for the next hour indicated no recharge.

Addendum #1

Patton's Busy Bee Disposal Site

Town of Alfred, Allegany County, New York
Town of Hartsville, Stueben County, New York

Site No. 902014

REVISED OPERATION AND MAINTENANCE MANUAL

April 1999

Prepared by:
Division of Environmental Remediation
New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo

The following revisions are made to the Operations and Maintenance (O&M) Plan dated September 1997. These revisions are based on the performance of the O&M activity over the past 2 years as reported in the Annual O&M Reports dated January 1998 and February 1999.

Section 5 Groundwater Maintenance

Four (4) additional monitoring wells will be added to the annual groundwater monitoring. These wells will be MW-101 I & D and MW-104 I & D. These wells will provide additional data on the groundwater quality to the north and west of the landfill. Existing 1" diameter MW-107 S & I will be decommissioned and replaced with 2" diameter monitoring wells and will be identified as MW-107SR and MW-107IR. Refer to revised Table 3 for list of Long-Term Monitoring Wells.

Section 6 Site Maintenance

The frequency of formal site inspections will be reduced to twice per year (semi-annual) from the original 4 times per year (quarterly).

Section 7 Site Access

The ownership of the Busy Bee disposal site property is unknown at this time. Therefore, the cable at the entrance of the access road is no longer in use. Evidence of use of the site by off-road vehicles and illegal dumping has been observed. A gate will be installed at the top of the access road near the leachate tanks, BB-T1 to prevent unauthorized site access. In addition warning signs will be posted around the perimeter of the site to notify people of the presence of the landfill.

Table 3
Revised
Patton's Busy Bee Disposal Site
Long-Term Monitoring Wells

Monitoring Well	Sandstone Unit Monitored
MW-101D	D
MW-101I	C
MW-102D	D
MW-103D	E
MW-103I	D
MW-104D	E
MW-104I	D
MW-107IR	E
MW-107SR	D
MW-108D	E
MW-108I	D
MW-109	E
MW-113	E

DRILLING SUMMARY

Geologist:
Andre LaPres / Mike Byrne

Drilling Company:
Technical Drilling Services

Driller:
Carl Rengert

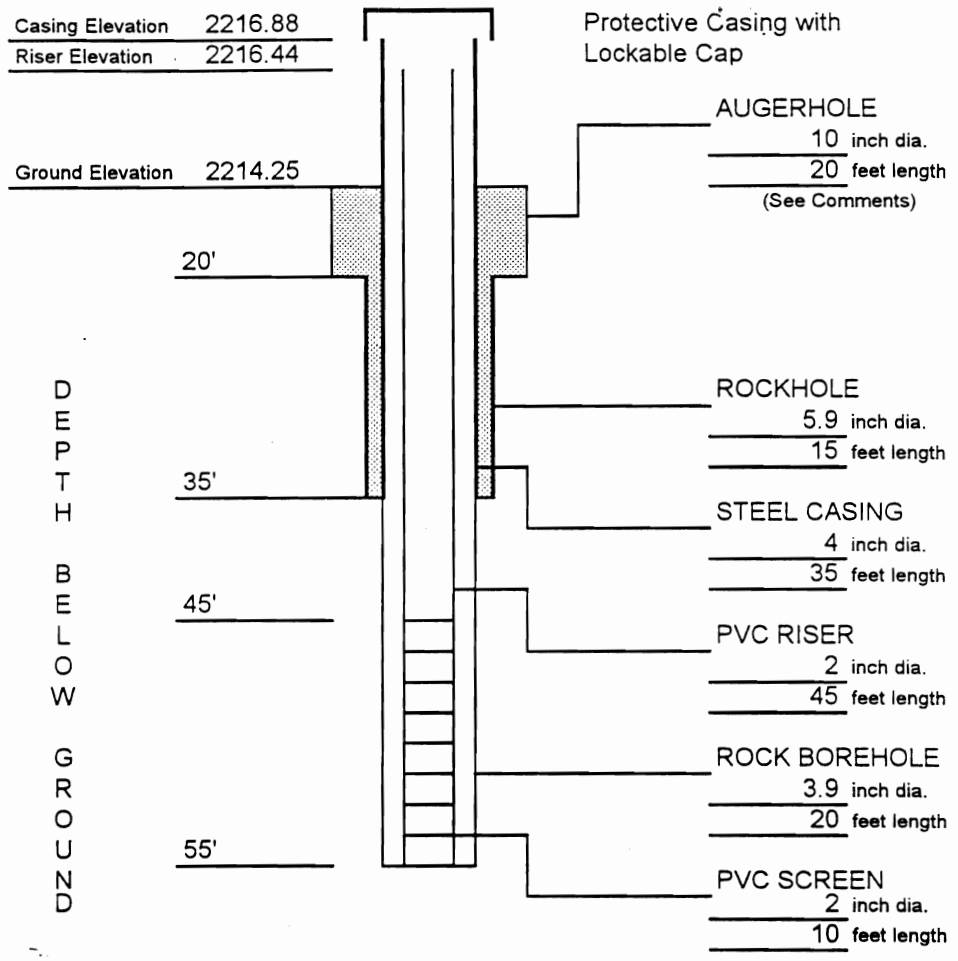
Rig Make/Model:
Mobil B-51

Date:
4/27/94

GEOLOGIC LOG

Depth(ft.)	Description
0' - 8'	Brown gravelly clayey silt
8' - 12'	Weathered shale and clay
12' - 17'	Gray shale
17' - 30'	Gray sandstone, mostly massive with some fractures and interbedded shale
30' - 47.5'	Gray Shale
47.5' - 54'	Gray Sandstone
54' - 76'	Gray Shale
76' -80'	Gray sandstone and shale interbedded.
80' - 82.4'	Gray Shale

WELL DESIGN



CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: 6" Steel Protective Casing	Type: 2" Schedule 40 PVC	Type: None Setting:
Monitor: 4" Steel	Slot Size: .010"	SEAL MATERIAL: Type: Cement Bentonite Grout Setting: 0-35'

COMMENTS:

A temporary 6" steel casing was set 20' BGS in a 10" auger hole to seal off upper sandstone groundwater, while installing 4" steel casing.

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: N.Y.S.D.E.C.	Monitoring Well Construction Details	Project No.: 0535352.00
URS Consultants, Inc.	Patton's Busy Bee Alfred Station Allegany County, NY	Well Number: MW-101I

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13-Sep-95

DRILLING SUMMARY

Geologist:
Andre LaPres / Mike Byrne

Drilling Company:
Technical Drilling Services

Driller:
Carl Rengert

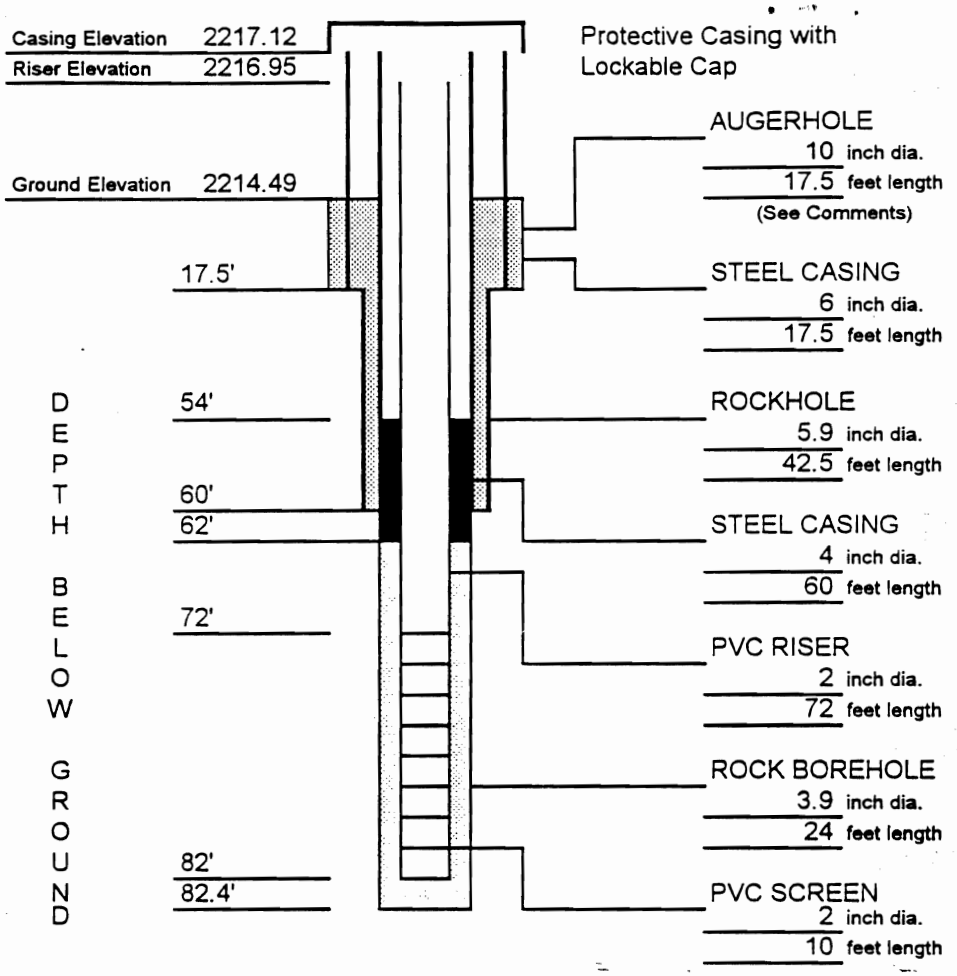
Rig Make/Model:
Mobil B-51

Date:
05/03/94

GEOLOGIC LOG

Depth(ft.)	Description
0' - 8'	Brown gravelly clayey silt
8' - 12'	Weathered shale and clay
12' - 17'	Gray shale
17' - 30'	Gray sandstone, mostly massive with some fractures and interbedded shale
30' - 47.5'	Gray Shale
47.5' - 54'	Gray Sandstone
54' - 76'	Gray Shale
76' -80'	Gray sandstone and shale interbedded.
80' - 82.4'	Gray Shale

WELL DESIGN



CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: 6" Steel Protective Casing	Type: 2" Schedule 40 PVC	Type: #2 Q-Rok Setting: 62'-84'
Monitor: 4" Steel	Slot Size: .010"	SEAL MATERIAL: Type: Bentonite Pellets Setting: 54'-62'

COMMENTS:

A permanent 6" steel casing was set 17.5' BGS in a 10" auger hole to seal off upper sandstone groundwater, while installing 4" steel casing.

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: N.Y.S.D.E.C.	Monitoring Well Construction Details	Project No.: 0535352.00
URS Consultants, Inc.	Patton's Busy Bee Alfred Station Allegany County, NY	Well Number: MW-101D

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13-Sep-95

DRILLING SUMMARY

Geologist: Andre LaPres

Drilling Company: Technical Drilling Services

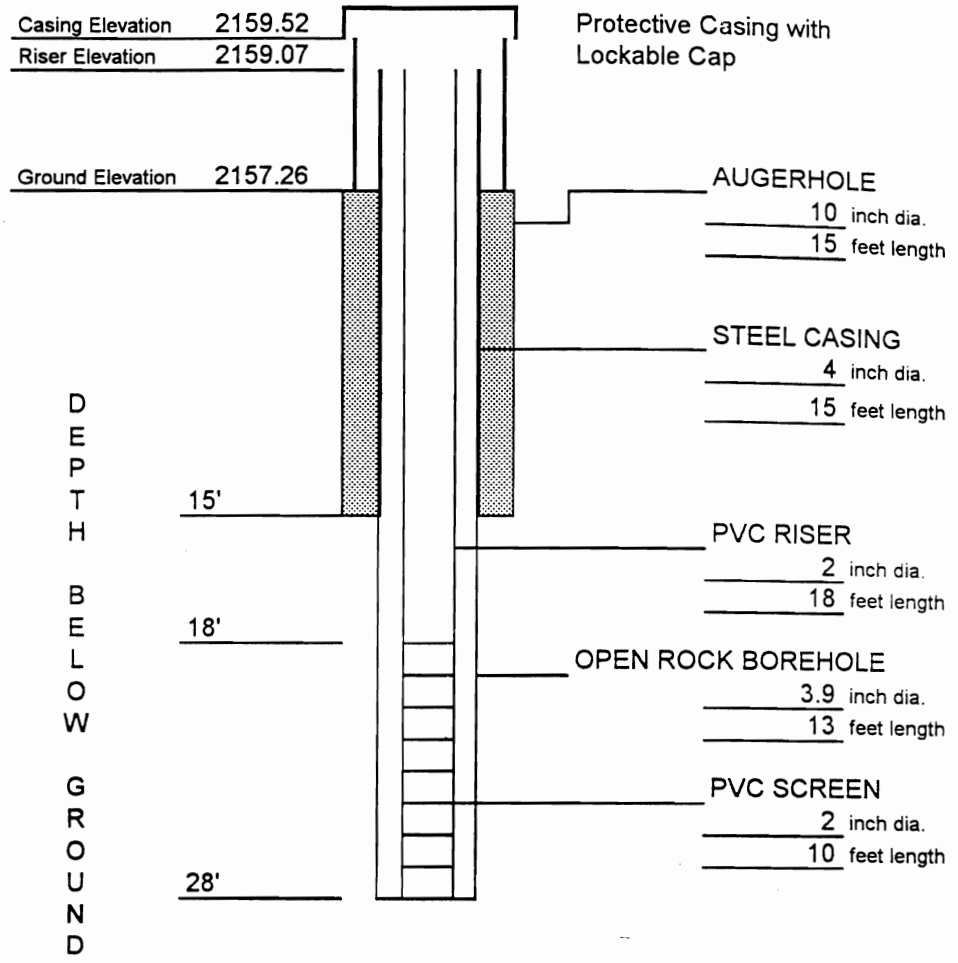
Driller: Martin Fuhrmann

Rig Make/Model: Mobil B-34

Date: 05/27/94

GEOLOGIC LOG

Depth(ft.)	Description
0 - 8.5'	Red/brown gravelly clayey silt.
8.5' - 15'	Gray shale, weathered, dry.
15' - 22.5'	Gray sandstone interbedded.
22.5' - 28'	Shale as above



WELL DESIGN

CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: 4" Steel Protective Casing	Type: 2" Schedule 40 PVC	Type: Not Used
Monitor: 4" Steel	Slot Size: .010"	**SEAL MATERIAL**
		Type: Cement Setting: 0.0'-15.0' Bentonite Grout

COMMENTS:

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: N.Y.S.D.E.C.	**Monitoring Well Construction Details**	**Project No.:** 0535352.00
URS Consultants, Inc.	**Patton's Busy Bee Alfred Station Allegany County, NY**	**Well Number:** MW-104I

J:\35352\QPRO\MW-104ID.WB1\cs
14-Sep-94

DRILLING SUMMARY

Geologist: Andre LaPres

Drilling Company: Technical Drilling Services

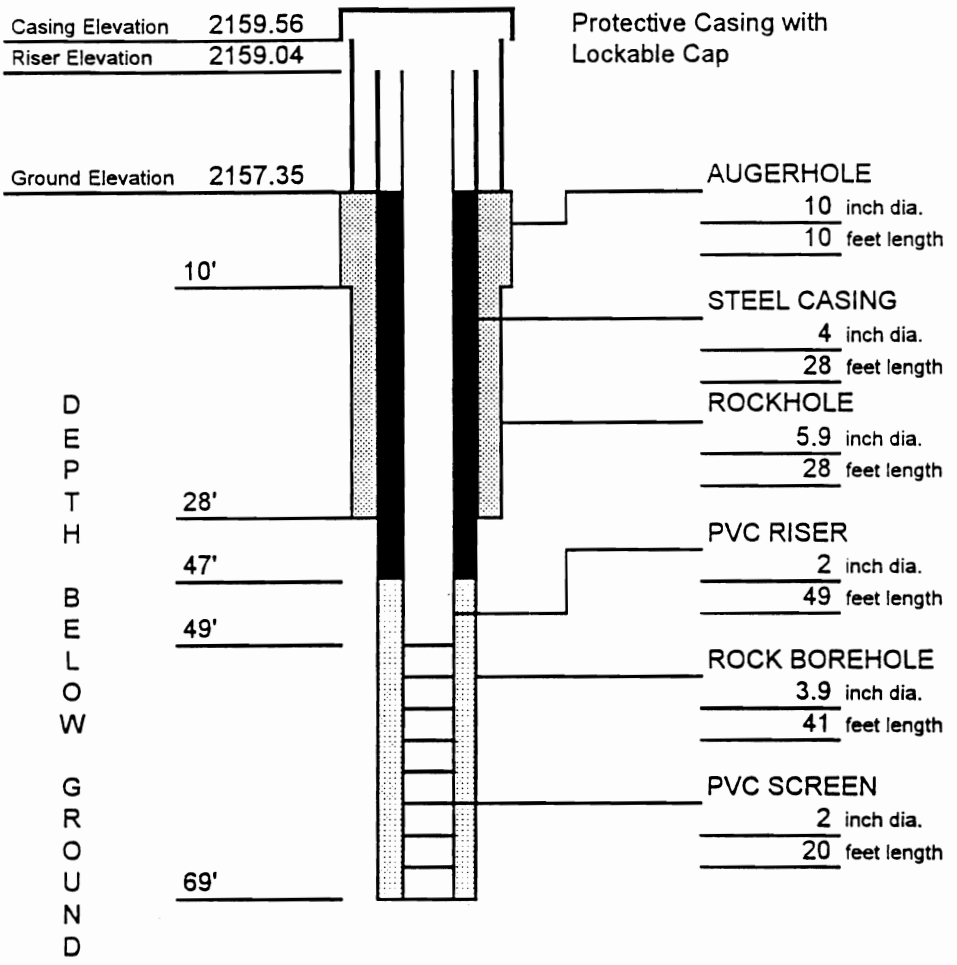
Driller: Martin Fuhrmann

Rig Make/Model: Mobil B-34

Date: 06/15/94

GEOLOGIC LOG

Depth(ft.)	Description
0 - 8.5'	Red/brown gravelly clayey silt.
8.5' - 15'	Gray shale, weathered, dry
15' - 22.5'	Gray sandstone interbedded.
22.5' - 45'	Shale as above
45' - 69'	Gray sandstone with shale interbedded.



WELL DESIGN

CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: 4" Steel Protective Casing	Type: 2" Schedule 40 PVC	Type: #2 Sand Setting: 47'-69'
Monitor: 4" Steel (Grouted)	Slot Size: .010"	SEAL MATERIAL Type: Setting: Bentonite Slurry 0'-45' Granular Bentonite 45'-47'

COMMENTS:

A temporary 6" casing was set to 10 feet in a 10" auger hole and removed after the 4" steel casing was installed.

LEGEND

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

Client: N.Y.S.D.E.C.	Monitoring Well Construction Details	Project No.: 0535352.00
URS Consultants, Inc.	Patton's Busy Bee Alfred Station Allegany County, NY	Well Number: MW-104D