



COLD SPRING ENVIRONMENTAL CONSULTANTS INC.

- 2IE Site Investigations
- Subsurface Investigations
- Pollution Remediation
- LSP on Staff
- Forensic Septic Investigations

- Percolation Tests
- Septic Designs
- Regulatory Compliance
- Recycling and Solid Waste
- Second Opinions

Percolation Test/MA Soil Evaluation

Prepared by:

Cold Spring Environmental Consultants, Inc.
350 Old Enfield Road
Belchertown, MA. 01007

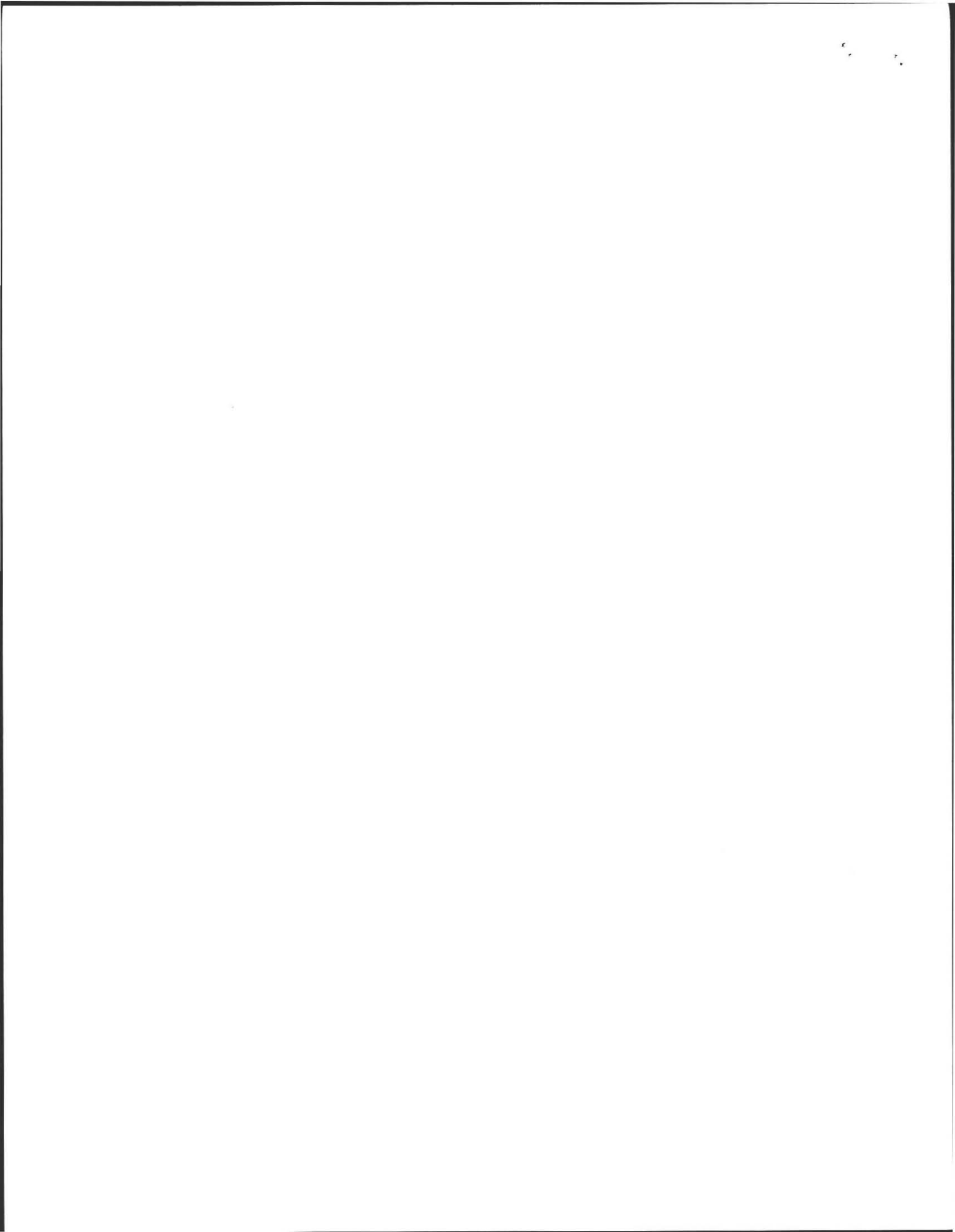
Prepared for:

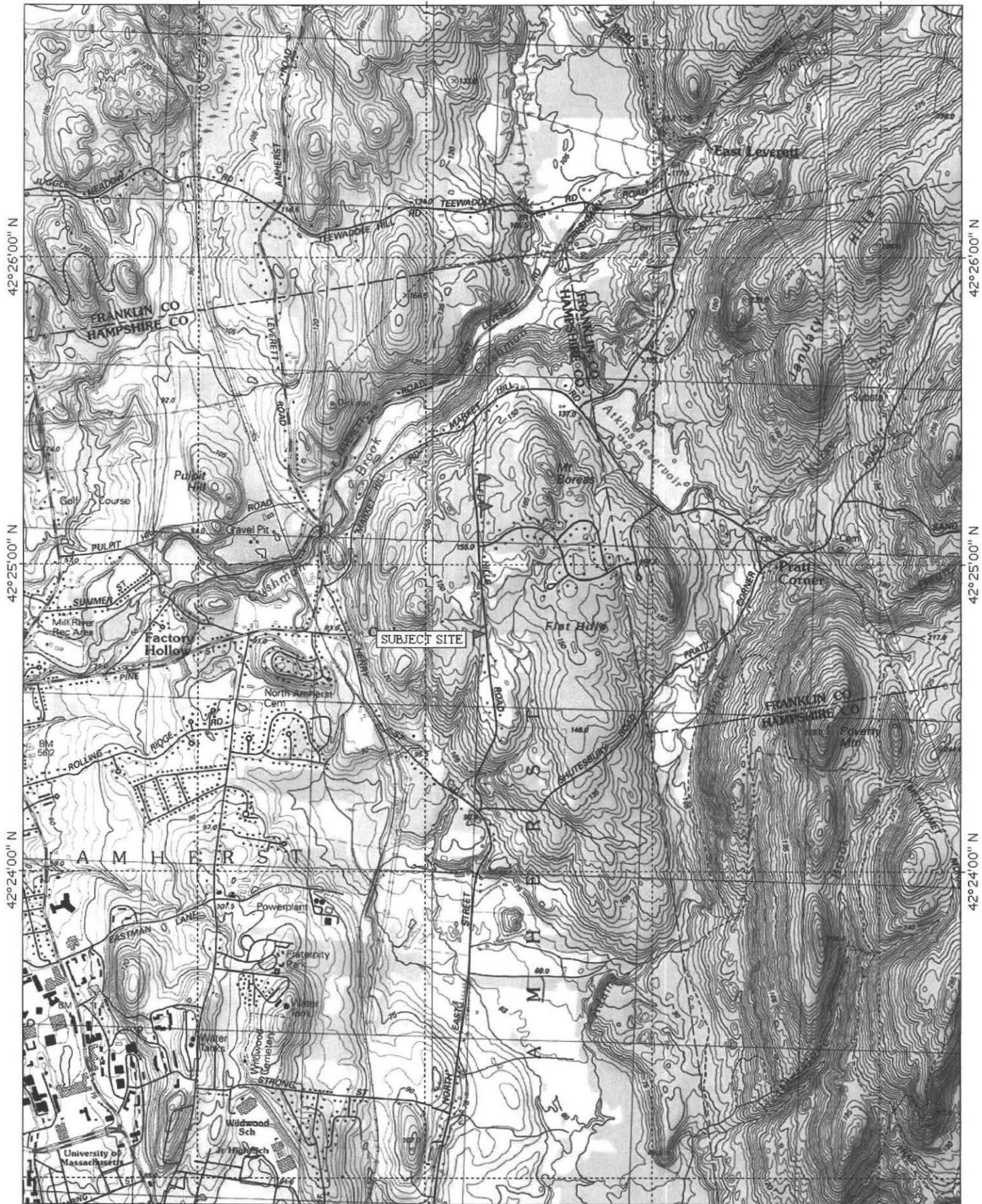
WD Cowls
Cinda Jones, President
WD Cowls
POB 9677
N. Amherst, MA. 01059-9677

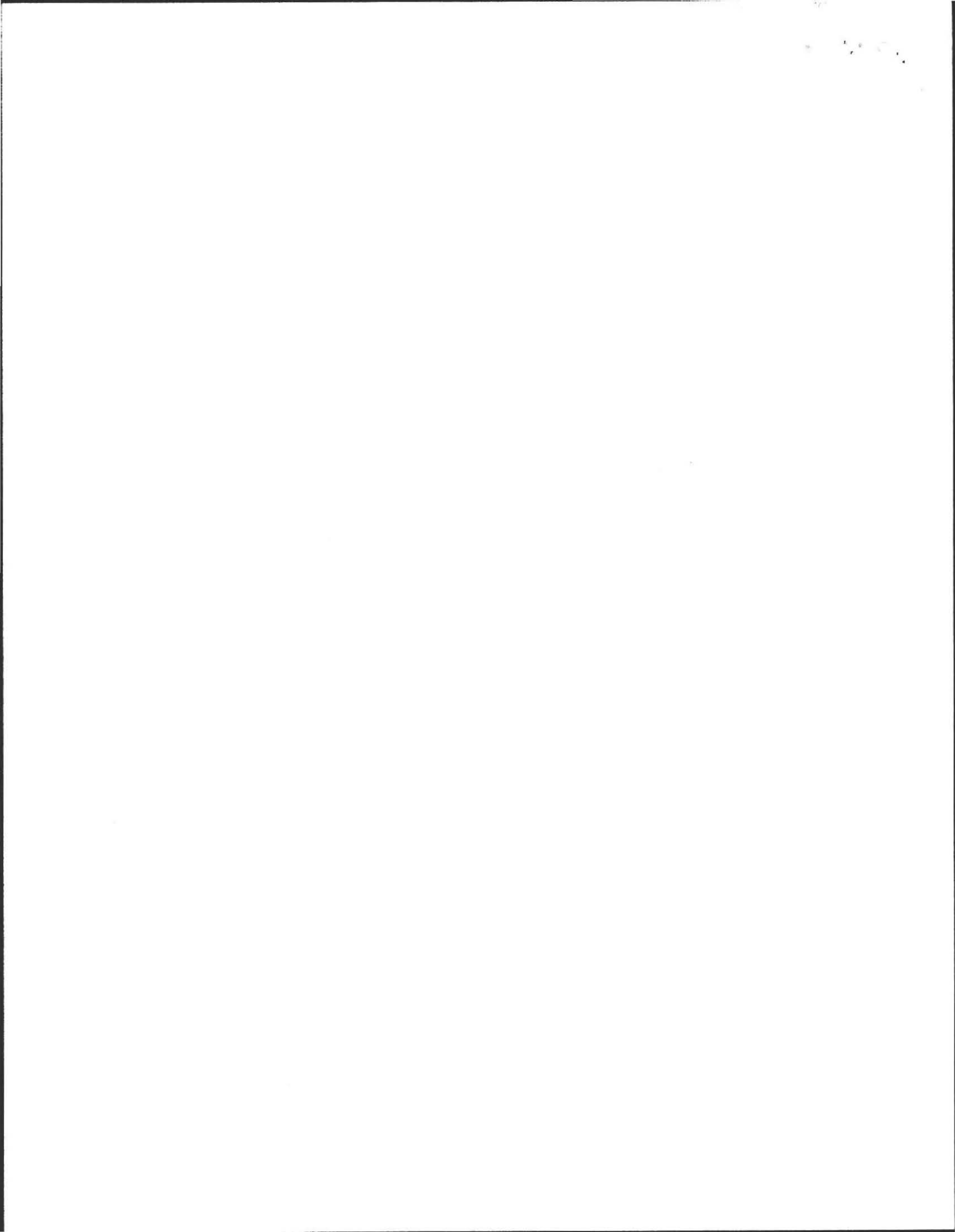
Project Number: 109-3285-12003

Site: 3 Lots Flat Hills Road
✓ Map 6A lot 91, ✓ Map 3D, Lot 39, Map 3D, Lot 21
Amherst, Massachusetts

Date: December 3, 2009









ALAN E. WEISS, M.S., L.S.P.

Licensed Site Professional

Registered Sanitarian

Hydrogeologist

President

- Subsurface Investigations
- 21E Site Investigations
- Pollution Remediation
- Percolation Tests and Septic Designs

350 Old Enfield Rd.
 Belchertown, MA 01007
 (413) 323-5957 & 323-4916 (FAX)

Date: 12-3-09

Commonwealth of Massachusetts

Amherst, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: A. Weiss
 Witnessed By: G. Court + Marche
 #1 MAP # 6A, LOT # 91

Date: 12-3-09

| | |
|---|---|
| Location Address or Lot # <u>Lot 2, First Hills Rd South of #300</u> | Owner's Name, Address, and Telephone # <u>W D Couals 134 Montague RD. N. Amherst</u> |
|---|---|

New Construction Repair

549-1403

Office Review

Published Soil Survey Available: No Yes

Year Published _____ Publication Scale _____ Soil Map Unit _____

Drainage Class _____ Soil Limitations _____

Surficial Geologic Report Available: No Yes

Year Published _____ Publication Scale _____

Geologic Material (Map Unit) _____

Landform _____

Flood Insurance Rate Map:

Above 500 year flood boundary No Yes

Within 500 year flood boundary No Yes

Within 100 year flood boundary No Yes

Wetland Area:

National Wetland Inventory Map (map unit)

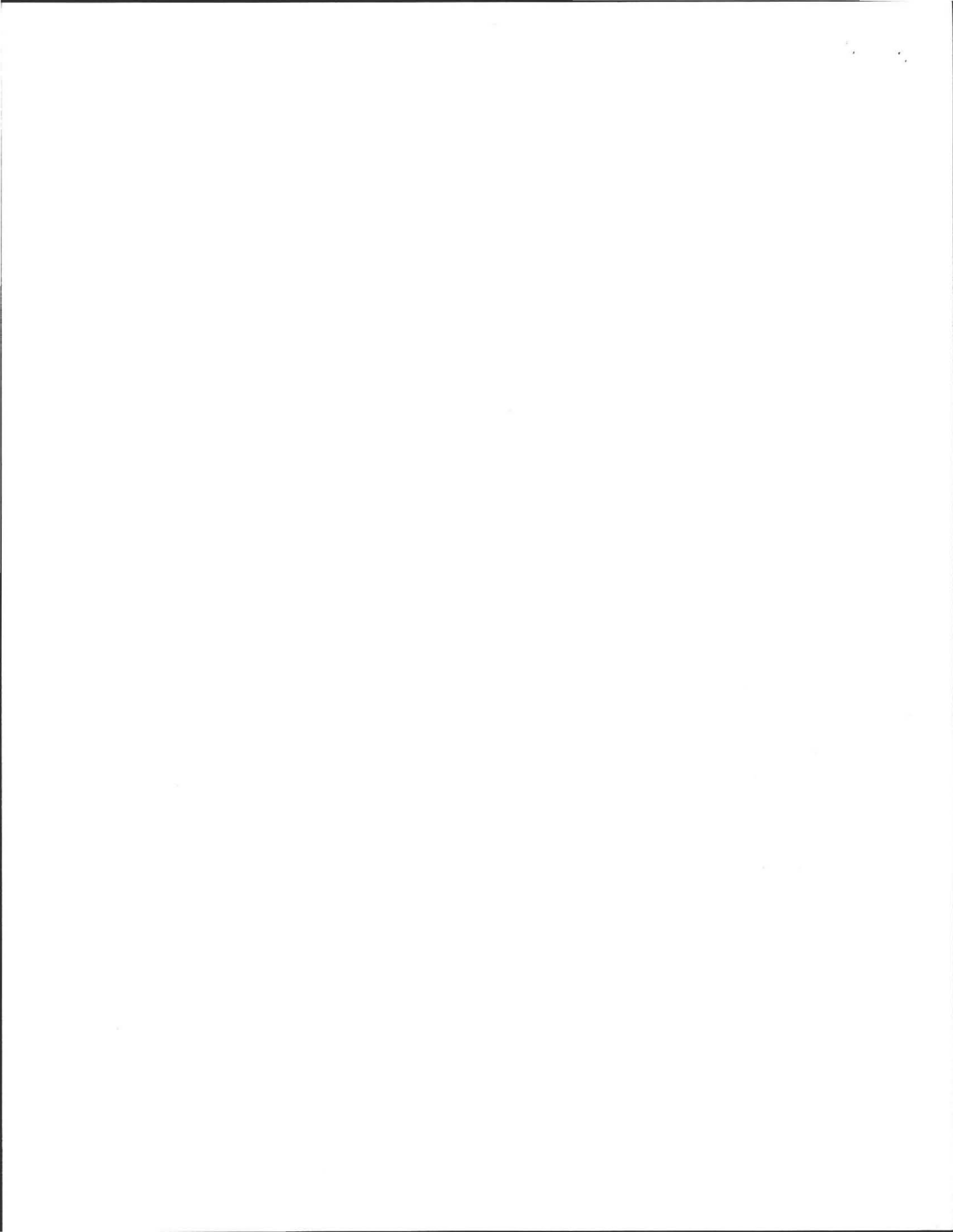
Wetlands Conservancy Program Map (map unit)

Current Water Resource Conditions (USGS): Month

Range: Above Normal Normal Below Normal

Other References Reviewed: _____





Location Address or Lot No. Lot #2, South of 300, Flat Hills Rd.
 Map GA, LOT 91

On-site Review

Deep Hole Number 1+2 Date: 12-3-09 Time: 9:00 Weather H. Rain last night Sun during pcc

Location (identify on site plan) _____

Land Use Res. Rural Slope (%) 2 Surface Stones Many

Vegetation Mixed Deciduous

Landform TERRACED

Position on landscape (sketch on the back) _____

Distances from:
 Open Water Body 100+ feet
 Possible Wet Area 80-100 feet
 Drinking Water Well 100+ feet
 Drainage way 50 feet
 Property Line _____ feet
 Other _____

* Subject to Wetland

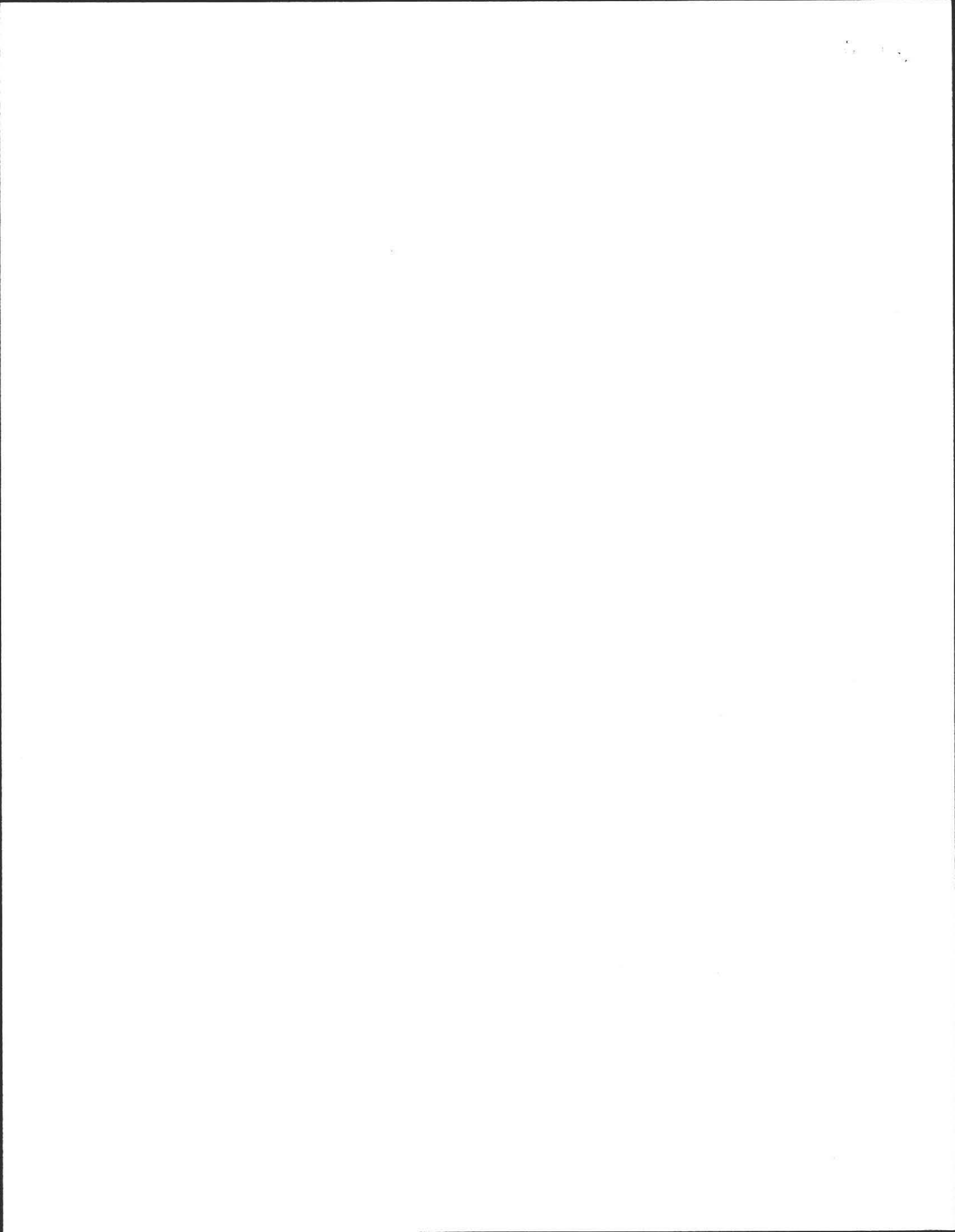
DEEP OBSERVATION HOLE LOG*

| Depth from Surface (Inches) | Soil Horizon | Soil Texture (USDA) | Soil Color (Munsell) | Soil Mottling | Other (Structure, Stones, Boulders, Consistency, % Gravel) |
|---------------------------------|--------------------------|---------------------|----------------------------------|-----------------|---|
| #1 0-8" 8-22" 22"-78" | A B C ₁ | FSL LS LS | 10YR 3/3 10YR 6/6 10YR 5/6 | 30" 10YR 6/8 | - friable - F.M. Sand - Fine-Med Sandy Abiataw TIL. MOD. LOOSE. 20% STONES |
| #2 0-8" 8"-24" 24"-76" | A B C ₁ | FSL LS LS | 10YR 3/3 10YR 6/6 10YR 5/6 | 30" 10YR 6/8 | Same as #1 |
| #3 0-9" 9"-24" 24"-86" | A B C ₁ | FSL LS LS | 10YR 3/3 10YR 6/6 10YR 5/6 | 30" 10YR 6/8 | Same as #1 |
| 0-9" 9-24" 24-86" | A B C ₁ | FSL LS LS | 10YR 3/3 10YR 6/6 10YR 5/6 | 30" 10YR 6/8 | Same as #1 |

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) Cl. fill Depth to Bedrock: 76-86 ft
 Depth to Groundwater: Standing Water in the Hole: 50" Weeping from Pit Face: 50"
 Estimated Seasonal High Ground Water: 50"





Location Address or Lot No. LOT 2, Flat Hills RD
Map 6A, LOT 91

COMMONWEALTH OF MASSACHUSETTS
 Amherst, Massachusetts

| Percolation Test* | | |
|----------------------|--------------------------------------|--------------------------------------|
| Date: <u>12/3/09</u> | | Time: <u>9:00</u> |
| Observation Hole # | <u>P₁</u> | <u>P₂</u> |
| Depth of Perc | <u>42"</u> | <u>46"</u> |
| Start Pre-soak | <u>9:08</u> | <u>9:38</u> |
| End Pre-soak | <u>9:23</u> | <u>9:43</u> |
| Time at 12" | <u>9:23</u> | <u>9:43</u> |
| Time at 9" | <u>9:41</u> | <u>9:54</u> |
| Time at 6" | <u>10:05</u> | <u>10:15</u> |
| Time (9"-6") | <u>24</u> | <u>21</u> |
| Rate Min./Inch | <u>8 $\frac{MIU}{IN}$</u> | <u>7 $\frac{MIU}{IN}$</u> |

* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

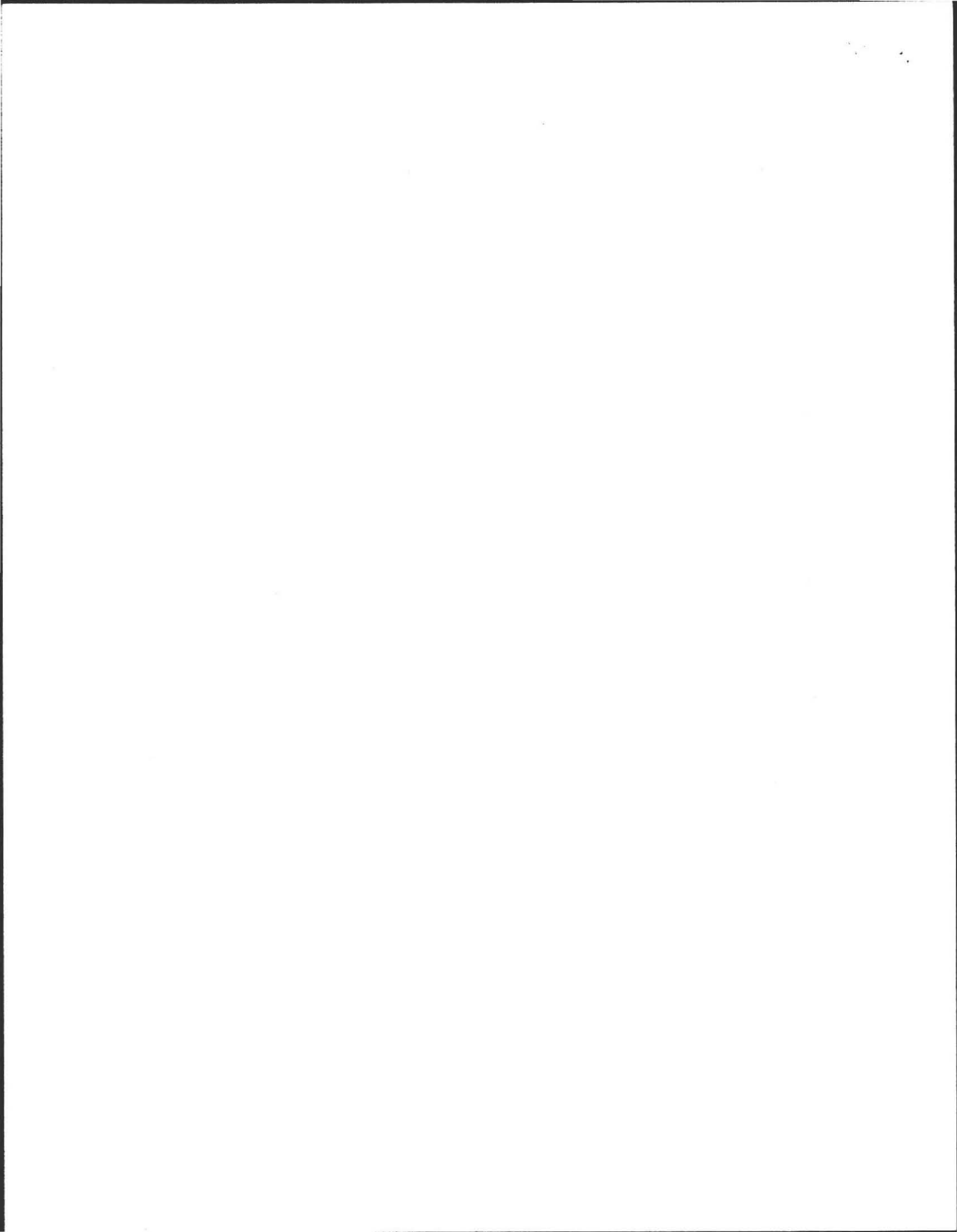
Site Passed Site Failed

Performed By: A. Weiss

Witnessed By: G. Lavigne

Comments: _____





Location Address or Lot No. LOT 2, Flat Hills RD.

Determination for Seasonal High Water Table

Method Used:

- Depth observed standing in observation hole inches
- Depth weeping from side of observation hole inches
- Depth to soil mottles 30 inches
- Ground water adjustment feet

Index Well Number Reading Date Index well level

Adjustment factor Adjusted ground water level

Depth of Naturally Occurring Pervious Material

Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? yes

If not, what is the depth of naturally occurring pervious material? _____

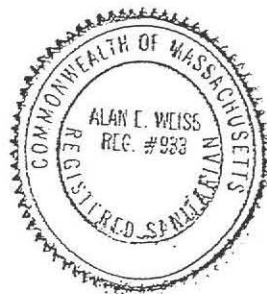
Certification

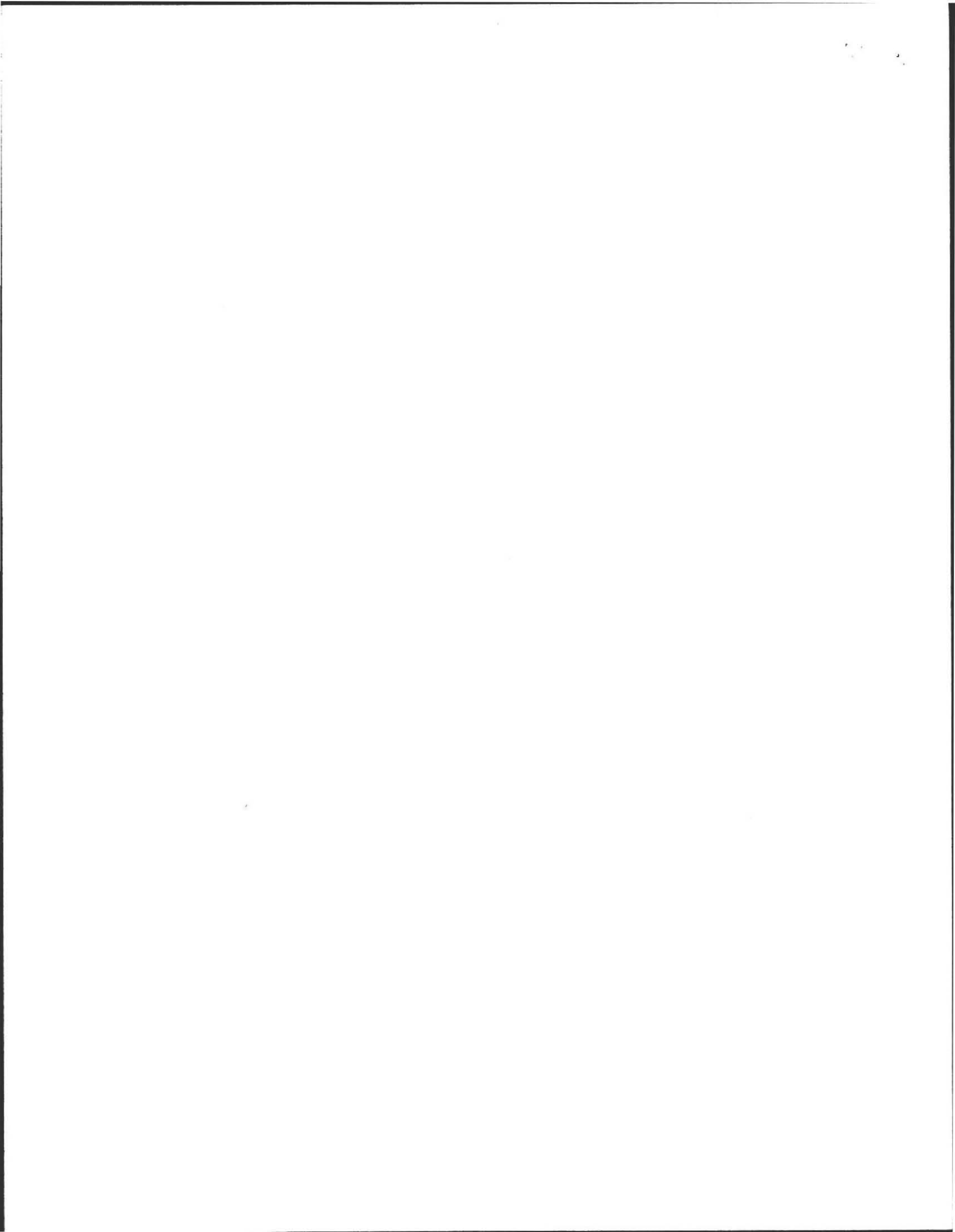
I certify that on 6/95 (date) I have passed the soil evaluator examination approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017.

Signature [Signature] Date 12-3-09



DEP APPROVED FORM - 12/07/95







- Property Map**
- Property Lines
 - Property Line
 - Hydrographic Property
 - Right of Way Line
 - Town Boundary
 - Other Property Lines
 - Former Property Line
 - Subdivision Lot Line
 - Easements
- Sidewalks**
- Transportation
 - Paved street polygons
 - Unpaved street polyg
 - Bridges
 - Bridge decking and str
 - Foot Bridge
 - Rail Bridge
- Basemap**
- Trails
 - Rail Lines
 - Structures
 - Building
 - Foundation or in const
 - Outbuilding or Miscell
 - Deck, Porch, Stairs or
 - Mobile home, Trailer
 - Swimming Pool
 - Building Ruins
 - Water storage tank
 - Rivers and Streams
 - Streams
 - Major Culverts
 - Hydro Connector
 - Headwalls, Floodwalls
 - Landcover
 - Brush and scrub vege
 - Tree and forest vege
 - Cultivated field
 - Gravel pile
 - Quarry
 - Misc Impervious Surfa
 - Parking
 - Parking Paved
 - Parking Unpaved
 - Driveways
 - Driveway Paved
 - Driveway Unpaved

Horizontal Datum: MA Stateplane Coordinate System, Zone 4151, Datum NAD83, Feet
 Vertical Datum: NAVD88, Feet

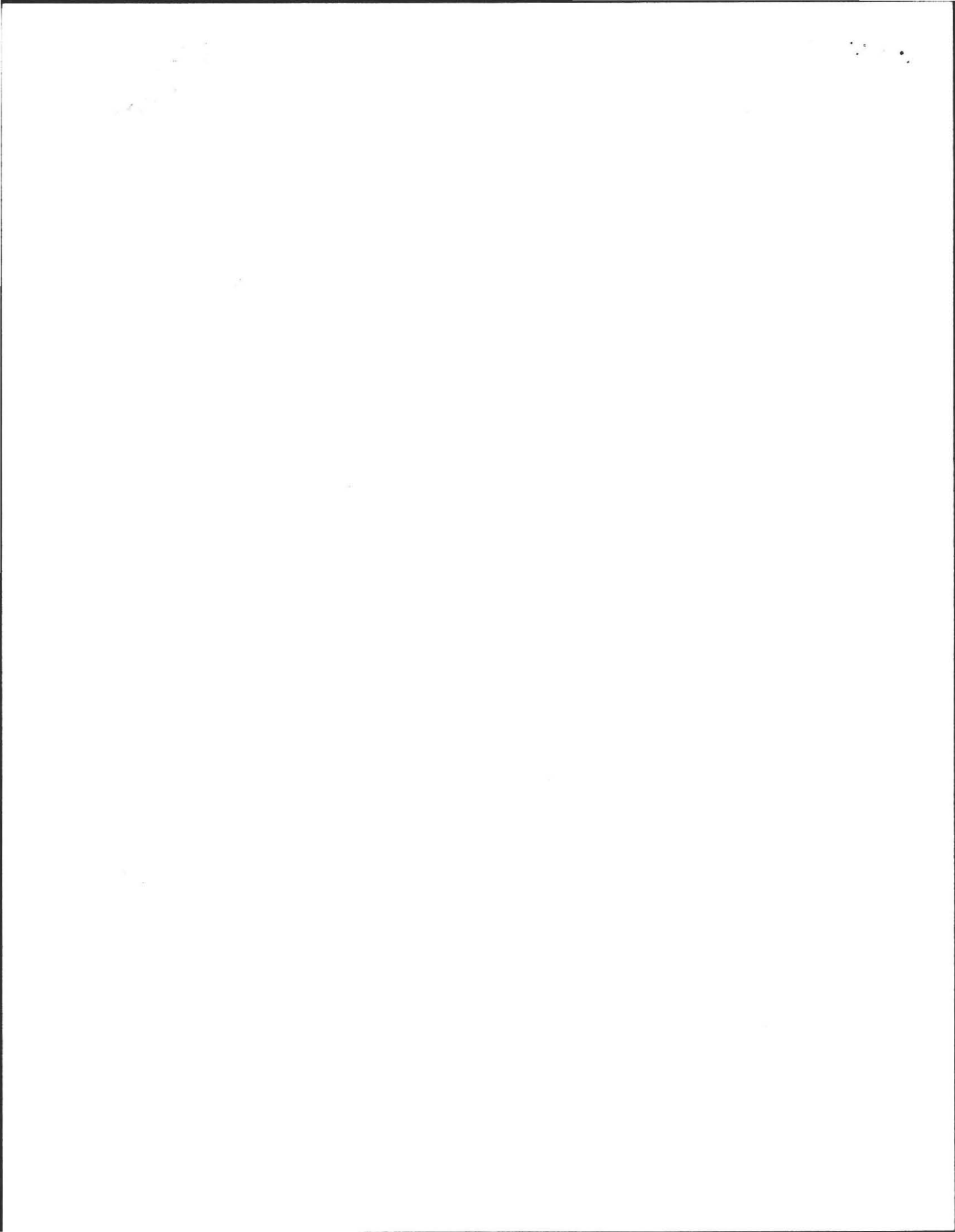
Planimetric & topographic basemap features compiled at 1"=40' scale from April, 2009 Aerial Photography. Parcels compiled to match the basemap; revisions are ongoing.

The information depicted on this map is for planning purposes only. It may not be adequate for legal boundary definition, regulatory interpretation, or property conveyance purposes. Utility structures and underground utility locations are approximate and require field verification.

THE TOWN OF AMHERST MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF THESE DATA. THE TOWN OF AMHERST DOES NOT ASSUME ANY LIABILITY ASSOCIATED WITH THE USE OR MISUSE OF THIS INFORMATION.

1" = 200 ft





Location Address or Lot No. Lot 2, across from 46 3D Lot 21
Southwest

COMMONWEALTH OF MASSACHUSETTS

, Massachusetts

LA

46

| Percolation Test* | | |
|--------------------|-------|-------------|
| Date: _____ | | Time: _____ |
| Observation Hole # | P1 | |
| Depth of Perc | 43" | 44" |
| Start Pre-soak | 1056 | 1105 |
| End Pre-soak | 11:11 | 11:40 |
| Time at 12" | 11:11 | 11:40 |
| Time at 9" | 11:22 | 11:52 |
| Time at 6" | 11:40 | 12:08 |
| Time (9"-6") | 18 | 16 |
| Rate Min./Inch | 6 | 6" |

* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

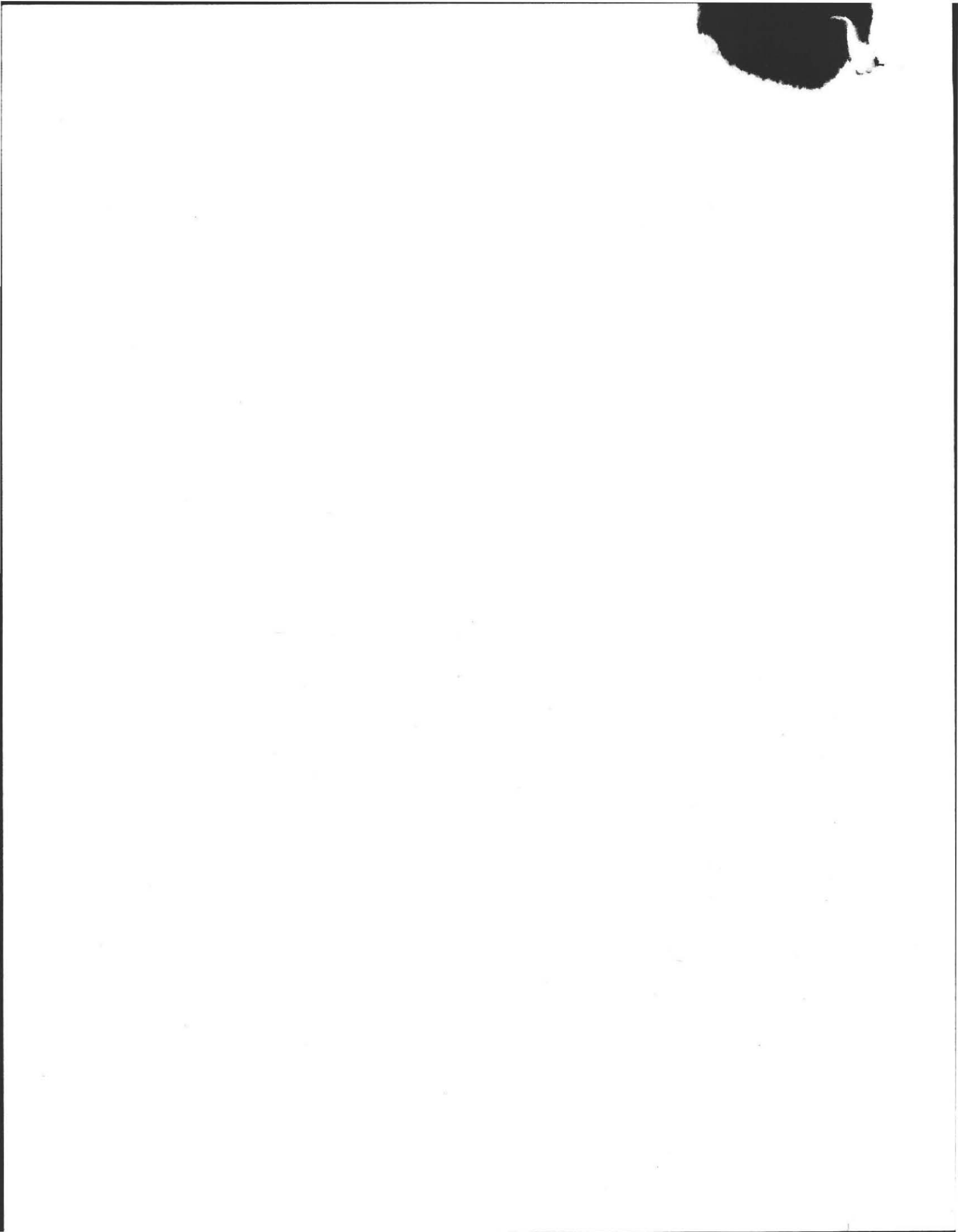
Site Passed Site Failed

Performed By: Alan Wicz

Witnessed By: Gary Courtemanche

Comments: _____





Location Address or Lot No. LOT 2, Flat hills

On-site Review

Deep Hole Number 1-4 Date: 12/3 Time: 11:00 Weather SUN 60°F

Location (identify on site plan) _____

Land Use _____ Slope (%) 2 Surface Stones many

Vegetation Deciduous

Landform Terraced

Position on landscape (sketch on the back) _____

Distances from:
 Open Water Body 100+ feet Drainage way 50'+ feet
 Possible Wet Area 100+ feet Property Line 25'+ feet
 Drinking Water Well 100+ feet Other _____

DEEP OBSERVATION HOLE LOG*

| Depth from Surface (Inches) | Soil Horizon | Soil Texture (USDA) | Soil Color (Munsell) | Soil Mottling | Other (Structure, Stones, Boulders, Consistency, % Gravel) |
|-------------------------------|---------------|---------------------|----------------------------------|----------------------------|---|
| #1 0-10 10-26 26-108 | A Bb C1 | FSC LS LS | 10YR 3/3 10YR 4/6 10YR 4/3 | 42" 25Y 4/2 10YR 6/8 | Friable Loam Firm, Friable Loam F.M. Aboluted Till 15% S. |
| #2 0-10 10-26 26-108 | A B C | FSL LS LS | same | same | same |
| #3 0-10 10-24 24-104 | A B C | FSC LS LS | ↓ | ↓ | ↓ |
| 0-12 12-24 24-104 | A B C | FSL LS LS | ↓ | ↓ | ↓ |

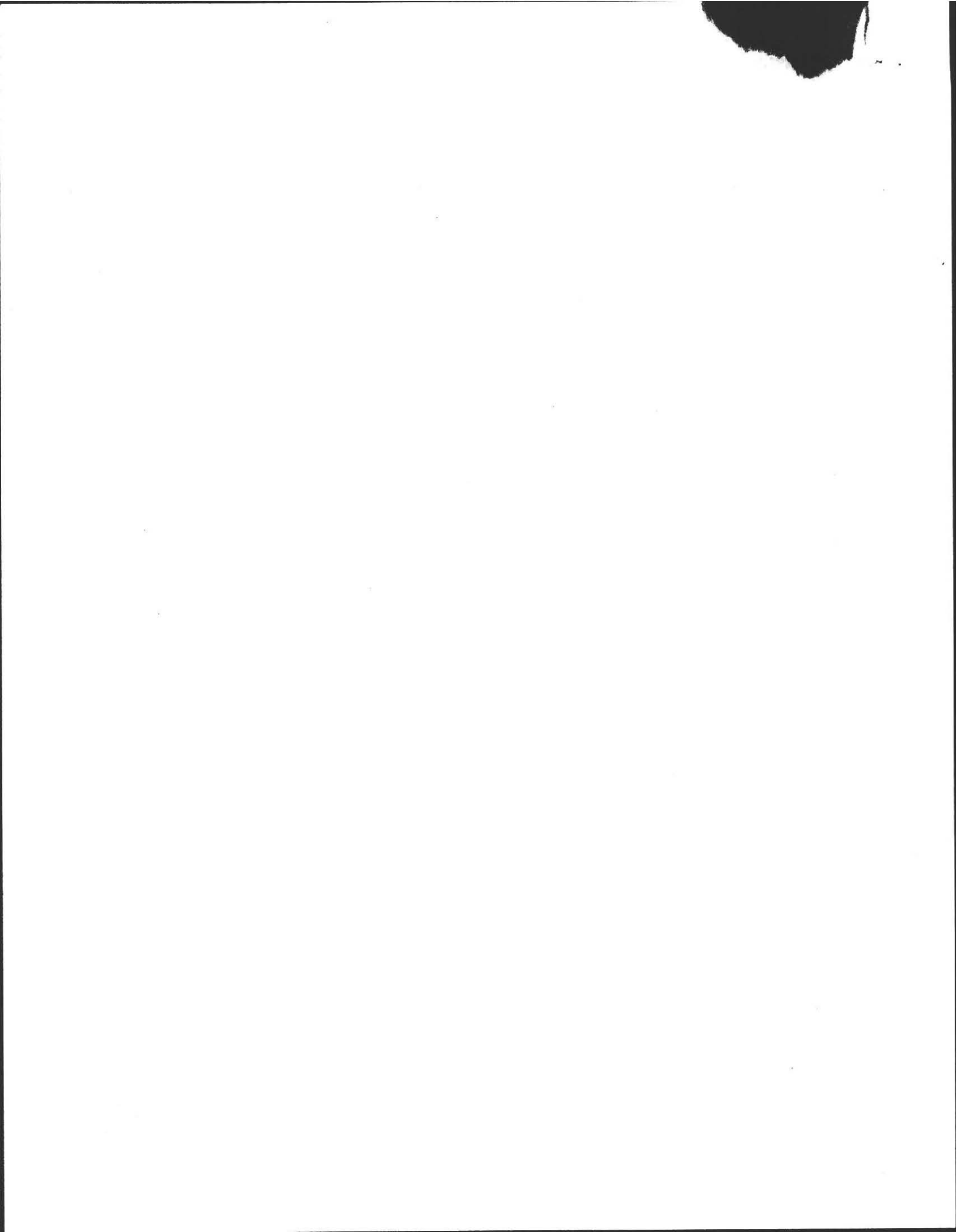
* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) Ablation Till Depth to Bedrock: 108'

Depth to Groundwater: Standing Water in the Hole: NOT Weeping from Pit Face: NOT

Estimated Seasonal High Ground Water: 42"





Location Address or Lot No. _____

30 D 39
Northeast

COMMONWEALTH OF MASSACHUSETTS

Massachusetts

Worlands -

Percolation Test*

| | | |
|----------------------|--------------|--------------------|
| Date: <u>12/3/09</u> | | Time: <u>12:30</u> |
| Observation Hole # | <u>P1</u> | <u>P2</u> |
| Depth of Perc | <u>44</u> | <u>44"</u> |
| Start Pre-soak | <u>12:17</u> | <u>12:33</u> |
| End Pre-soak | <u>12:32</u> | <u>12:43</u> |
| Time at 12" | <u>12:32</u> | <u>12:43</u> |
| Time at 9" | <u>12:40</u> | <u>1:02</u> |
| Time at 6" | <u>12:48</u> | <u>1:10</u> |
| Time (9"-6") | <u>8</u> | <u>8</u> |
| Rate Min./Inch | <u>1.3</u> | <u>3</u> |

* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

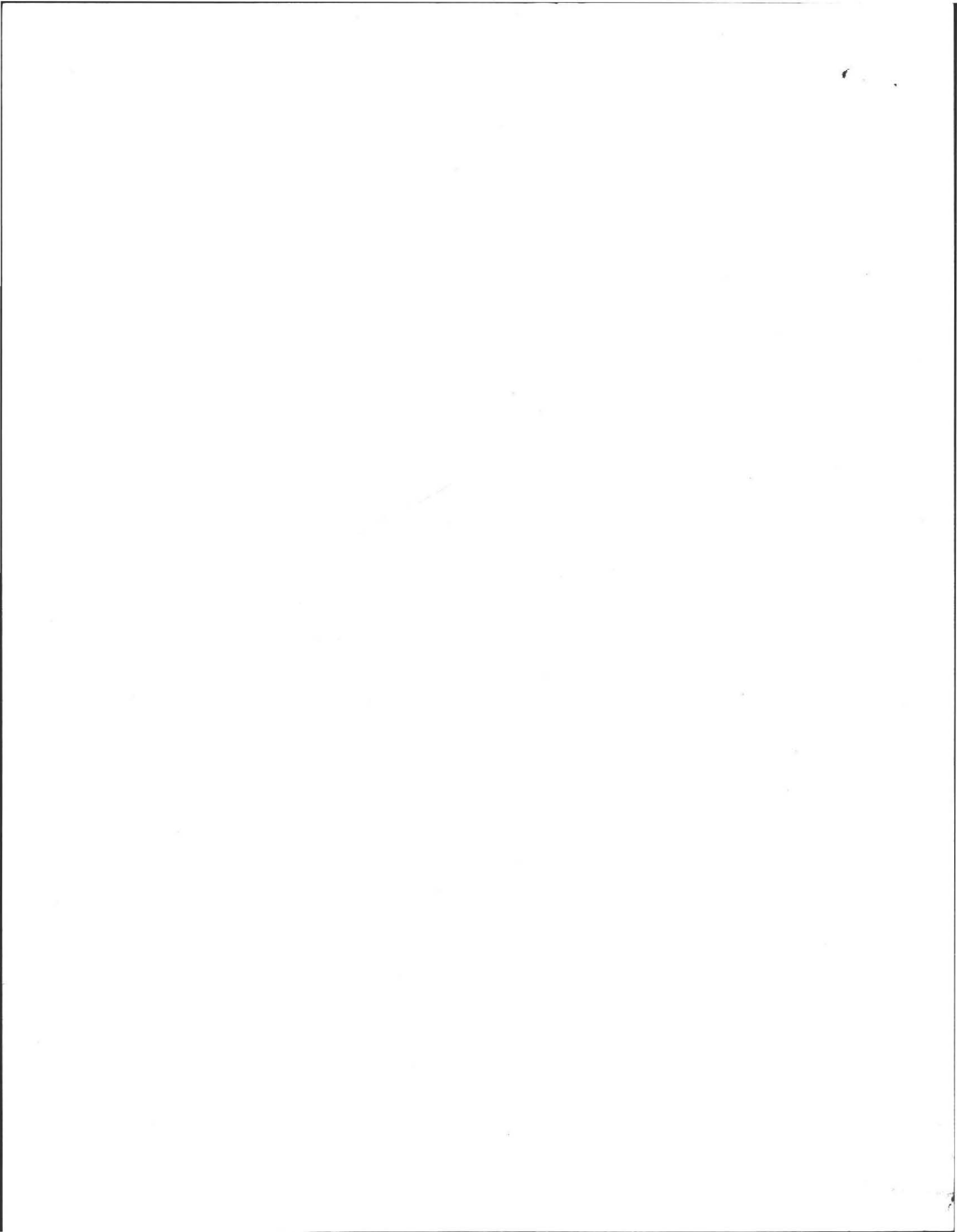
Site Passed Site Failed

Performed By: Alan Wrecc

Witnessed By: Gary Courtmande

Comments: _____





Location Address or Lot No. _____

On-site Review

Deep Hole Number _____ Date: _____ Time: _____ Weather _____

Location (identify on site plan) _____

Land Use _____ Slope (%) _____ Surface Stones _____

Vegetation _____

Landform _____

Position on landscape (sketch on the back) _____

Distances from:

Open Water Body _____ feet Drainage way _____ feet

Possible Wet Area _____ feet Property Line _____ feet

Drinking Water Well _____ feet Other _____

DEEP OBSERVATION HOLE LOG*

| Depth from Surface (Inches) | Soil Horizon | Soil Texture (USDA) | Soil Color (Munsell) | Soil Mottling | Other (Structure, Stones, Boulders, Consistency, % Gravel) |
|-----------------------------|---------------|---------------------|-------------------------------|----------------|---|
| 0-10 10-29 29-120 | A B C | FSC LS LS | 10YR3/3 10YR4/5 10YR4/3 | 68" 10YR5/8 | Friable/loose Friable Med/Sand mod. coarse sandy Abolation Till 20% stones |
| 0-10 10-29 28-120 | A B C | FSC LS LS | ↓ | ↓ | Same as 1 |
| 0-10 10-30 30-108 | A Bb C1 | FSC LS LS | ↓ | ↓ | ↓ |
| 0-14 14-29 29-102 | A Bb C1 | FSC LS LS | ↓ | ↓ | ↓ |

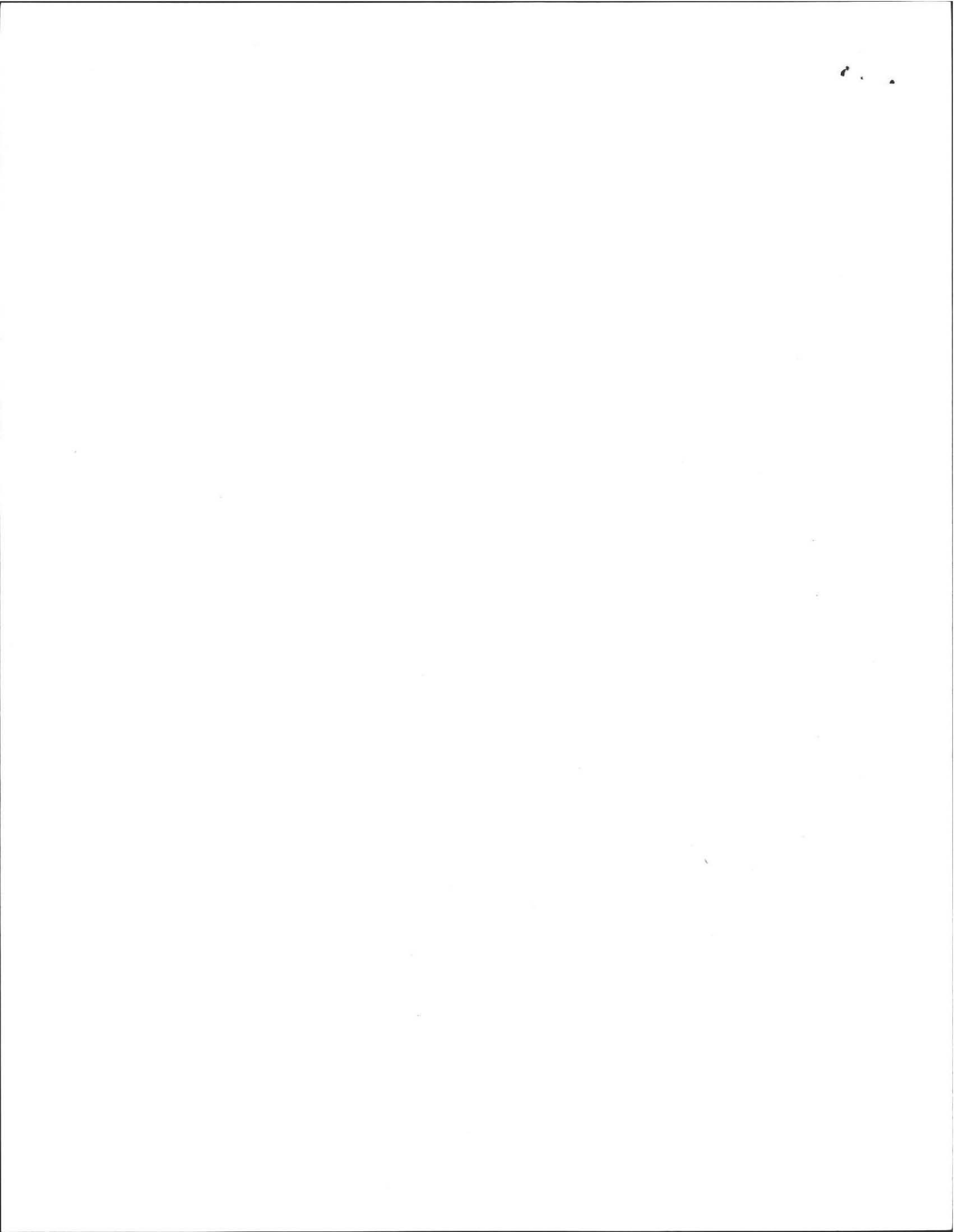
* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) _____ Depth to Bedrock: _____

Depth to Groundwater: Standing Water in the Hole: _____ Weeping from Pit Face: NOT

Estimated Seasonal High Ground Water: 67"





Location Address or Lot No. #2 300 Fleet hills Rd

~~3D LOT 4~~
6A LOT 91
N EAST P

COMMONWEALTH OF MASSACHUSETTS

, Massachusetts

| Percolation Test* | | |
|----------------------|-------------|----------------------|
| Date: <u>12/3/09</u> | | Time: <u>9:00</u> |
| Observation Hole # | <u>#1 P</u> | <u>P₂</u> |
| Depth of Perc | <u>42"</u> | <u>46"</u> |
| Start Pre-soak | <u>908</u> | <u>938</u> |
| End Pre-soak | <u>923</u> | <u>943</u> |
| Time at 12" | <u>923</u> | <u>943</u> |
| Time at 9" | <u>941</u> | <u>954</u> |
| Time at 6" | <u>1005</u> | <u>10:15</u> |
| Time (9"-6") | <u>24</u> | <u>27</u> |
| Rate Min./Inch | <u>8"</u> | <u>7"</u> |

* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

Site Passed Site Failed

Performed By: A Weiss

Witnessed By: G Courtemanche

Comments: _____

SUBJECT TO WETLAND REVIEW



(Handwritten signature)

Location Address or Lot No. _____

On-site Review

Deep Hole Number _____ Date: _____ Time: _____ Weather Heavy Rain last N
SW

Location (identify on site plan) _____

Land Use _____ Slope (%) _____ Surface Stones _____

Vegetation _____

Landform _____

Position on landscape (sketch on the back) _____

Distances from:

Open Water Body _____ feet Drainage way _____ feet

Possible Wet Area _____ feet Property Line _____ feet

Drinking Water Well _____ feet Other _____

DEEP OBSERVATION HOLE LOG*

| Depth from Surface (Inches) | Soil Horizon | Soil Texture (USDA) | Soil Color (Munsell) | Soil Mottling | Other (Structure, Stones, Boulders, Consistency, % Gravel) |
|--|---------------|---------------------|----------------------------------|-----------------|--|
| #1 0-8 8-24 260-78 | A B C | FSL LS LS | 10YR 3/3 10YR 4/6 10YR 5/6 | 30" 10YR 6/8 | Friable FM SAND |
| #2 0-8 8-24 34-76 | A Bb C1 | FSL LS LS | 10YR 3/3 10YR 4/6 10YR 5/6 | 30" 10YR 6/8 | Same as 1 |
| #3 0-9 9-24 24-86 | A Bb C1 | FSL LS LS | | 30" YR 6/8 | |
| #4 | Same as (3) | | | | |

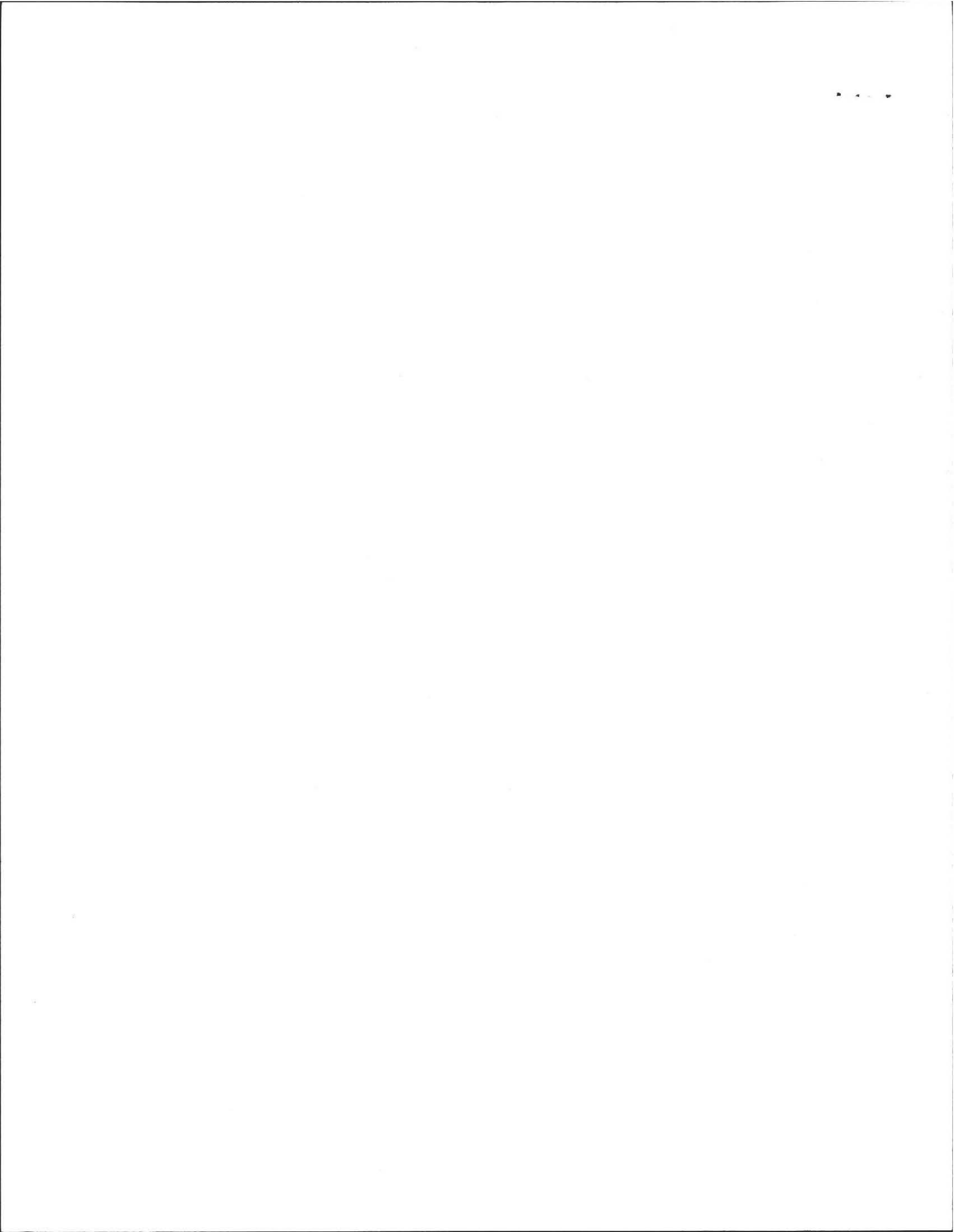
* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) _____ Depth to Bedrock: 76-86"

Depth to Groundwater: Standing Water in the Hole: _____ Weeping from Pit Face: 50"

Estimated Seasonal High Ground Water: _____





W.D. COWLS, INC.
134 MONTAGUE ROAD, P.O. BOX 9677
NO. AMHERST, MA 01059
(413) 549-1403

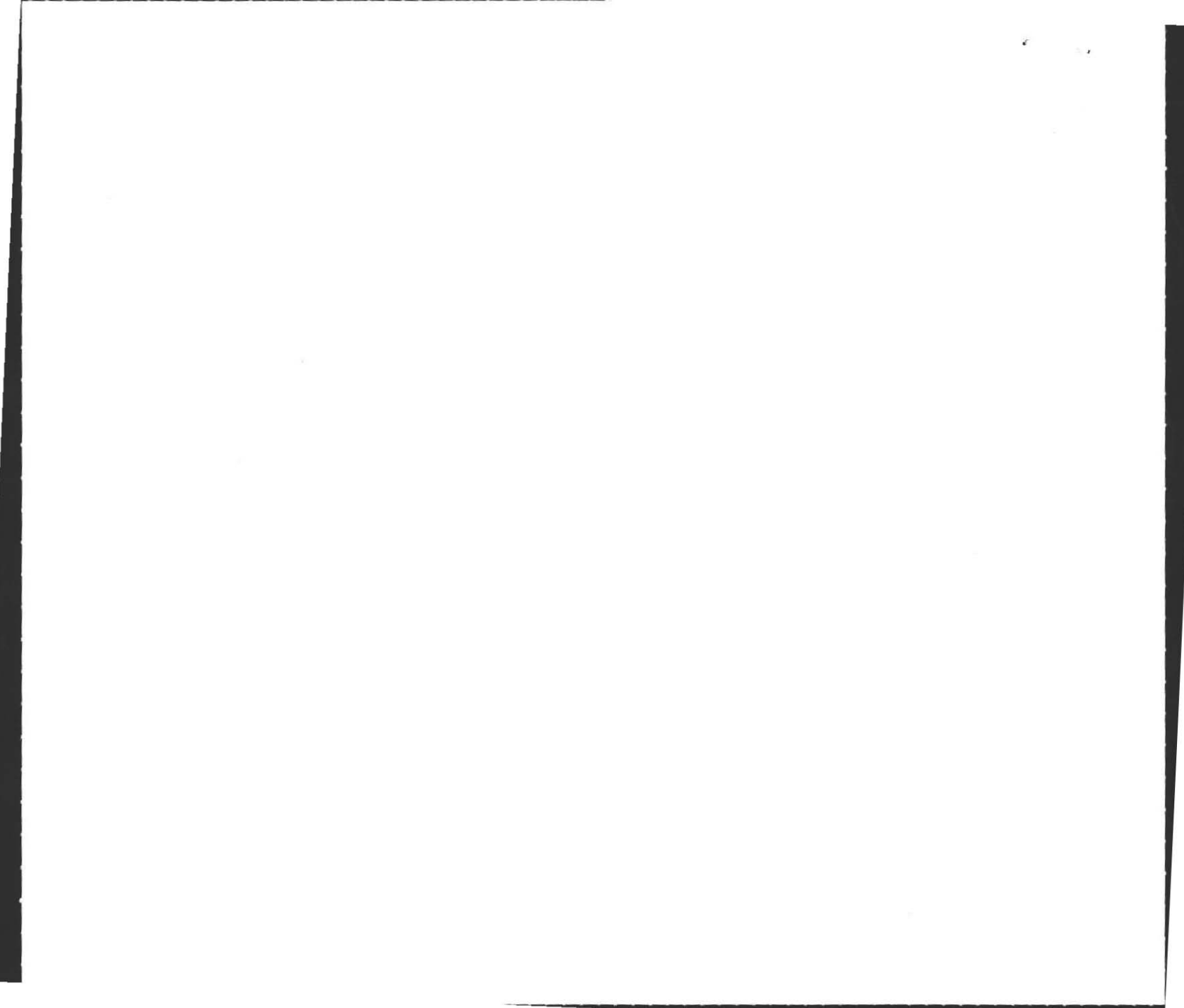
0121611

| VENDOR CODE | NAME | DATE |
|-------------|-----------------|-----------|
| Amherst1 | Town of Amherst | 28 Dec 09 |

| DATE | INVOICE NO. | | GROSS AMOUNT | DISCOUNT | | NET AMOUNT |
|---|-------------|--|--------------|----------|--------|------------|
| | | | | % | AMOUNT | |
| 12/21/09 | 122109 | | 900.00 | | | 900.00 |
| <p>Flat Hills Road Perce tests. (3) <hr/>-CHG</p> | | | | | | |

TOTALS →

| INVOICE AMOUNT | DISCOUNT | NET | CHECK NO. |
|----------------|----------|-----------|-----------|
| \$ 900.00 | \$ 0.00 | \$ 900.00 | 121611 |



PERMITS/INSP PAYMENT RECPT#: 10055786
TOWN OF AMHERST
TOWN HALL
4 BOLTWOOD AVENUE
AMHERST MA 01002

DATE: 12/30/09 TIME: 10:19
CLERK: mirj DEPT:

PAID BY:
PAYMENT METH: CHECK 0121611

REFERENCE: A

AMT TENDERED: 300.00
AMT APPLIED: 300.00
CHANGE: .00

SITE ADDRESS: FLAT HILLS RD LOT 21

FEEs:
HEA011 PERCOLATIONS TE 300.00

TOTAL PAID: 300.00



PERMITS/INSP PAYMENT RECPT#: 10055776
TOWN OF AMHERST
TOWN HALL
4 BOLTWOOD AVENUE
AMHERST MA 01002

DATE: 12/30/09 TIME: 10:13
CLERK: mirj DEPT:

PAID BY:
PAYMENT METH: CHECK 0121611

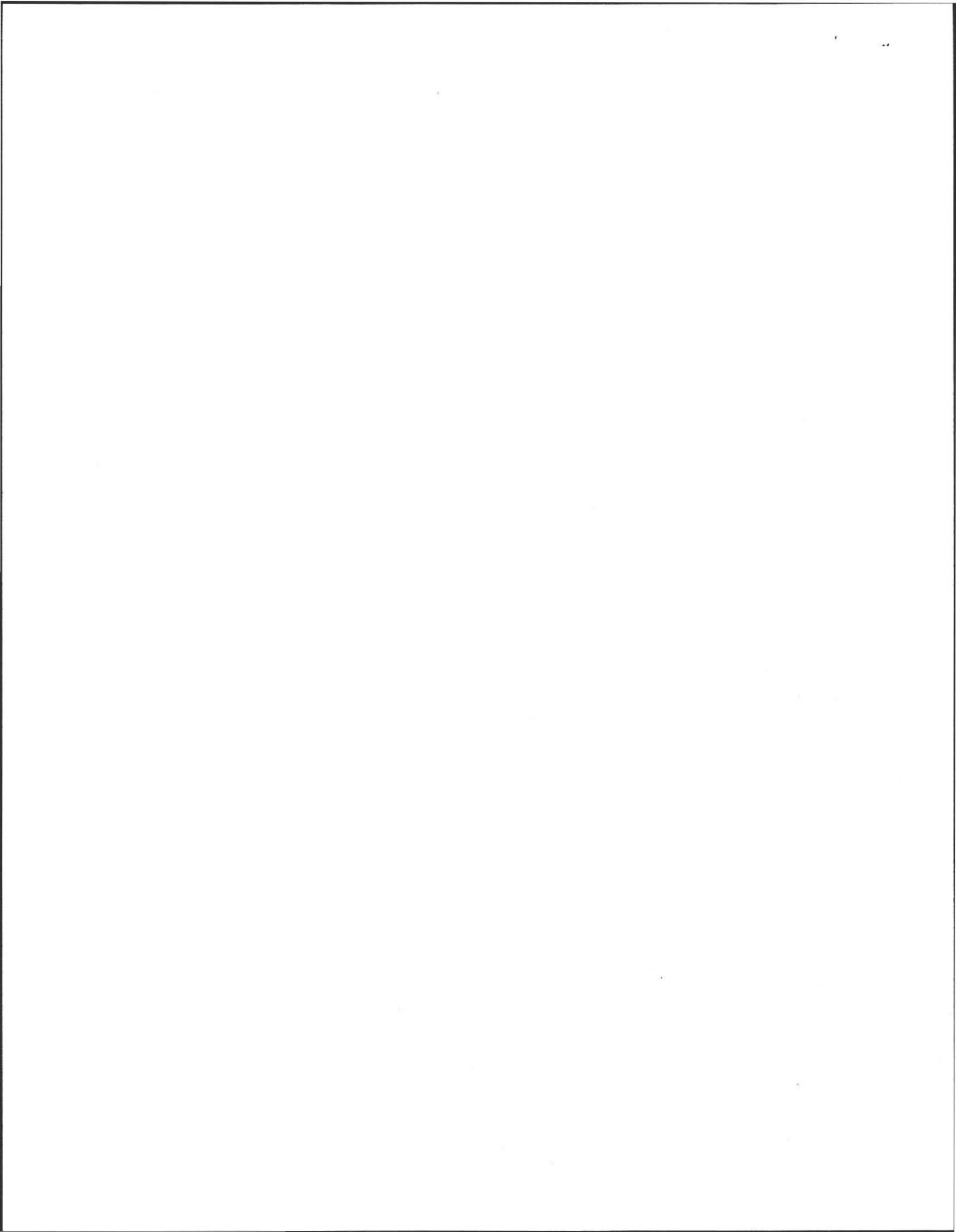
REFERENCE: A

AMT TENDERED: 300.00
AMT APPLIED: 300.00
CHANGE: .00

SITE ADDRESS: HENRY ST LOT 91

FEES:
HEA011 PERCOLATIONS TE 300.00

TOTAL PAID: 300.00



PERMITS/INSP PAYMENT RECPT#: 10055784
TOWN OF AMHERST
TOWN HALL
4 BOLTWOOD AVENUE
AMHERST MA 01002

DATE: 12/30/09 TIME: 10:16
CLERK: mirj DEPT:

PAID BY:
PAYMENT METH: CHECK 0121611

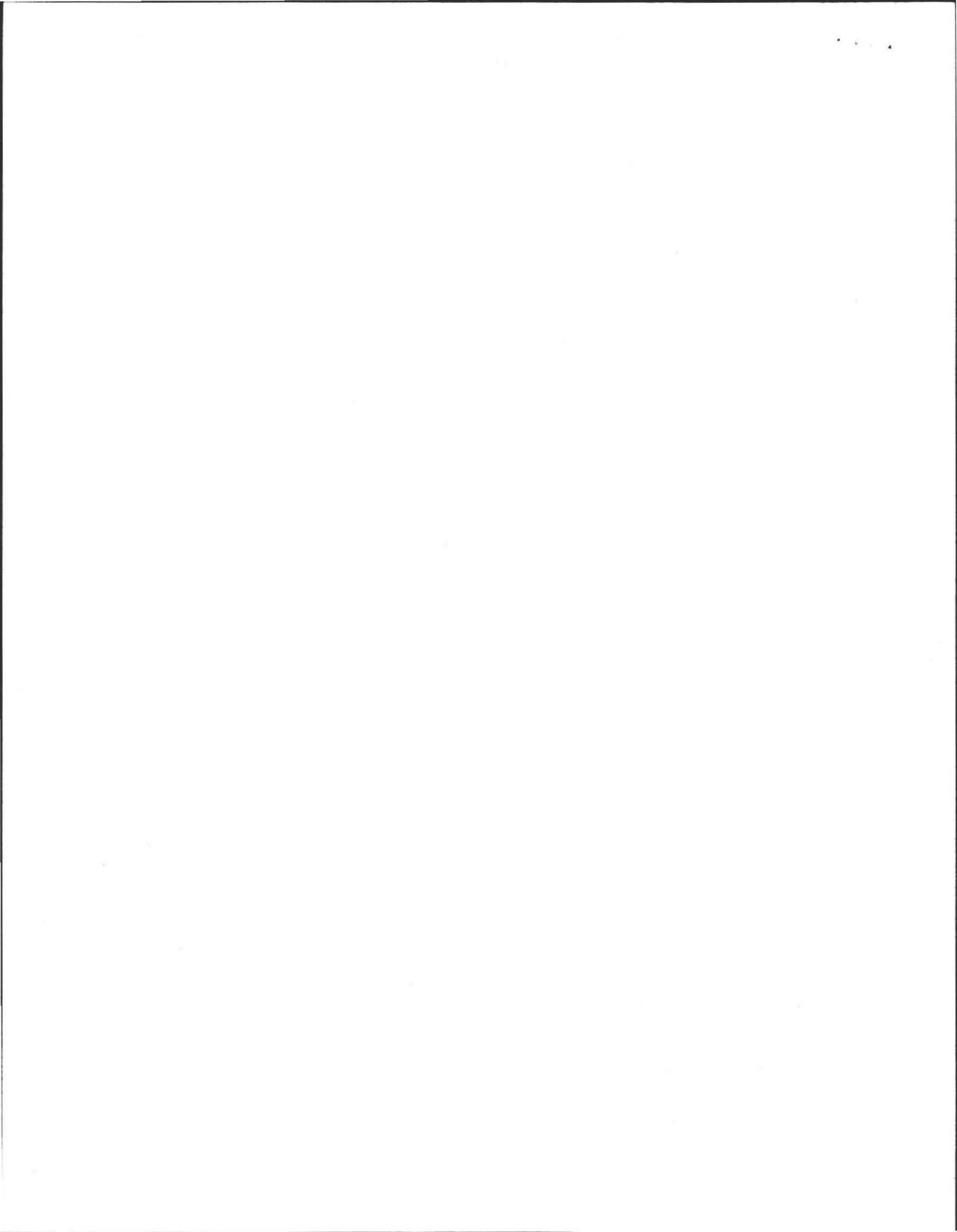
REFERENCE: A

AMT TENDERED: 300.00
AMT APPLIED: 300.00
CHANGE: .00

SITE ADDRESS: FLAT HILLS RD LOT 39

FEEs:
HEA011 PERCOLATIONS TE 300.00

TOTAL PAID: 300.00





COLD SPRING ENVIRONMENTAL CONSULTANTS INC.

- 21E Site Investigations
- Subsurface Investigations
- Pollution Remediation
- LSP on Staff
- Forensic Septic Investigations

- Percolation Tests
- Septic Designs
- Regulatory Compliance
- Recycling and Solid Waste
- Second Opinions

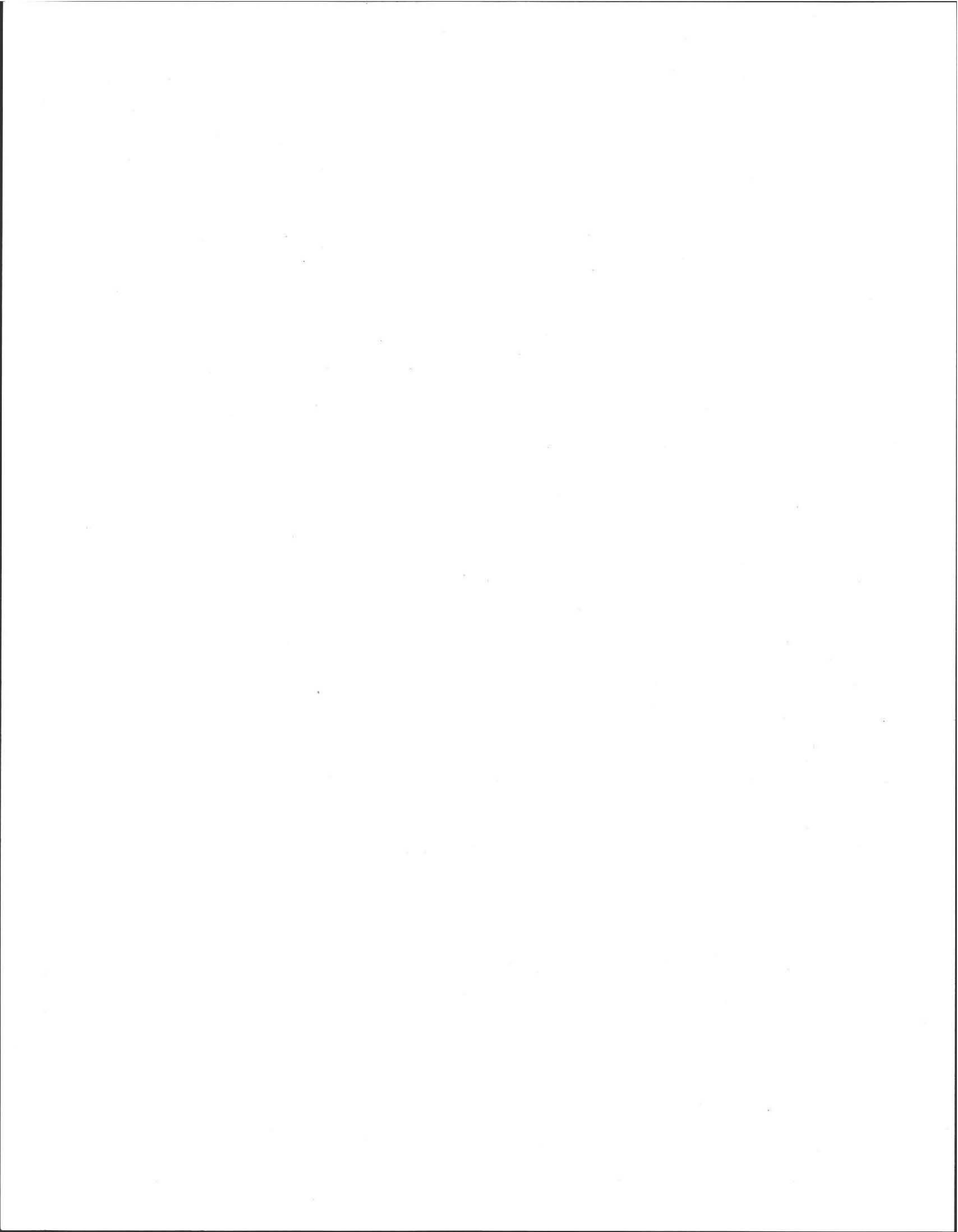
Amherst Board of Health

Abutter Notification Legal Notice

Pursuant to the authority of MA General Laws and Local Board of Health Bylaws the Board of Health will hold a public hearing on Thursday, February 22, 2011 at regularly scheduled meeting starting at 7:00 PM, at the Room 318 in the Bangs Center at 70 Boltwood Walk. The purpose of the meeting is to review a New well permit for a new single family home located at Map 3D Lot22, Flat Hills Road, Amherst, MA submitted by Ken Leblanc, Applicant in accordance with the local well regulations. Any person interested in this matter should appear at the time and place posted by the Board schedule.

.....

Cold Spring Environmental, Inc
350 Old Enfield Road, Belchertown, MA 01007
323-5957 phone
323-4916 fax





- Property Map
- Property Lines
- Hydrographic Propart
- Right of Way Line
- Town Boundary
- Other Property Lines
- Former Property Line
- Subdivision Lot Line
- Easements
- Basemap
- Trails
- Rail Lines
- Structures
- Building or in coat
- Outbuilding or Miscel
- Deck, Porch, Stairs or
- Mobile home, Trailer
- Swimming Pool
- Building Ruins
- Water storage tank
- Rivers and Streams
- Streams
- Major Culverts
- Hydro Contactor
- Fences, Fences, Fences
- Landcover
- Grass and scrub vege
- Tree and forest vege
- Cultivated field
- Gravel pile
- Quarry
- Misc Impervious Surf
- Parking
- Parking Paved
- Parking Unpaved
- Driveways
- Driveway Paved
- Driveway Unpaved

- Sidewalks
- Transportation
- Paved street polygons
- Unpaved street poly
- Bridges
- Bridge decking and air
- Foot Bridge
- Rail Bridge

Horizontal Datum: MA Stateplane Coordinate System,
Zone 41S1, Datum NAD83, Feet
Vertical Datum: NAVD83, Feet

Photometric & topographic basemap features compiled
at 1"=40' scale for April, 2009 Aerial Photography.
Parcels compiled to match the basemap;
revisions are ongoing.

The information depicted on this map is for planning
purposes only. It may not be adequate for legal boundary
definition, regulatory interpretation, or property conveyance
purposes. Utility structures and underground utility
locations are approximate and require field verification.

THE TOWN OF AMHERST MAKES NO WARRANTIES,
EXPRESS OR IMPLIED, CONCERNING THE
ACCURACY OR COMPLETENESS, RELIABILITY, OR SUITABILITY OF
THESE DATA. THE TOWN OF AMHERST DOES NOT
ASSUME ANY LIABILITY ASSOCIATED WITH THE
USE OR MISUSE OF THIS INFORMATION.

1" = 150 ft

Amherst GIS Viewer February 9, 2011



