



**SKYLINE LANDFILL**  
**APPENDIX E2**  
**SITE EXPLORATION DATA**

|  |                     |
|--|---------------------|
| Boring Plan Approval Letter                        | E2-1                |
| Boring and Well Location Map                       | E2-2                |
| Logs of Borings, Piezometers, and Monitoring Wells | E2-3 through E2-284 |

Bryan W. Shaw, Ph.D., *Chairman*  
Buddy Garcia, *Commissioner*  
Carlos Rubinstein, *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

May 3, 2011

Mr. Walter C. Hunt, P.E.  
Engineering Manager  
North Texas, Oklahoma, and Arkansas Market Area  
Waste Management of Texas, Inc.  
P. O. Box 400  
Ferris, Texas 75125-0400

Re: Waste Management Skyline Recycling and Disposal Facility – Dallas and Ellis  
Counties  
Municipal Solid Waste (MSW) – Permit No. 42C  
Proposed Site Investigation  
Tracking Nos. 14644996 and 14676474

Dear Mr. Hunt:

We received a revised soil boring plan (SBP) on April 26, 2011, for the referenced MSW landfill facility, in response to our letter dated April 11, 2011. The revised SBP is dated April 21, 2011, and was submitted on your behalf by Ms. Elizabeth Floyd, P.G., of Biggs & Mathews Environmental, Mansfield, Texas.

The revised SBP proposes 22 borings in an approximately 129.1-acre expansion area, including 106.8 acres of existing permitted landfill footprint proposed to be deepened, and 22.3 acres of the property that has not previously been part of the footprint. The revised SBP states that all of the borings will be drilled to an elevation at least 30 feet deeper than the elevation of the deepest excavation (proposed at 377 feet above sea level). Our review indicates that the revised plan complies with the Municipal Solid Waste Regulations; this letter constitutes approval of the plan.

Please be advised that under Title 30 Texas Administrative Code, Chapter 330, Section 330.63(e)(4)(B), the uppermost aquifer and any hydraulically interconnected aquifers below the site must be identified, as well as the underlying confining unit. It is anticipated that this SBP, when implemented, will accurately characterize the in-situ geologic, hydrologic, and engineering properties of the surface and subsurface strata at this site. Although this plan appears to comply with the Municipal Solid Waste Regulations concerning site investigations, additional soil borings and piezometers could be required by the Commission if the data generated by this SBP is inconclusive.

If you should find it necessary to modify this approved SBP, another plan detailing any proposed modifications must be submitted to the Commission for approval before implementation of the modifications.

Figure E2-1 (page 1 of 2)

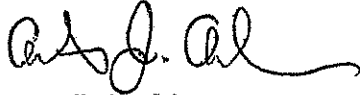
Mr. Walter C. Hunt, P.E.

Page 2

May 3, 2011

If you have questions regarding this letter, please contact me by telephone at (512) 239-4419, or in writing at the address on our letterhead (please include mail code MC 124 on the first line of our address).

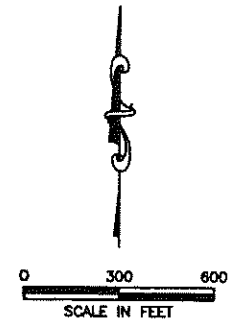
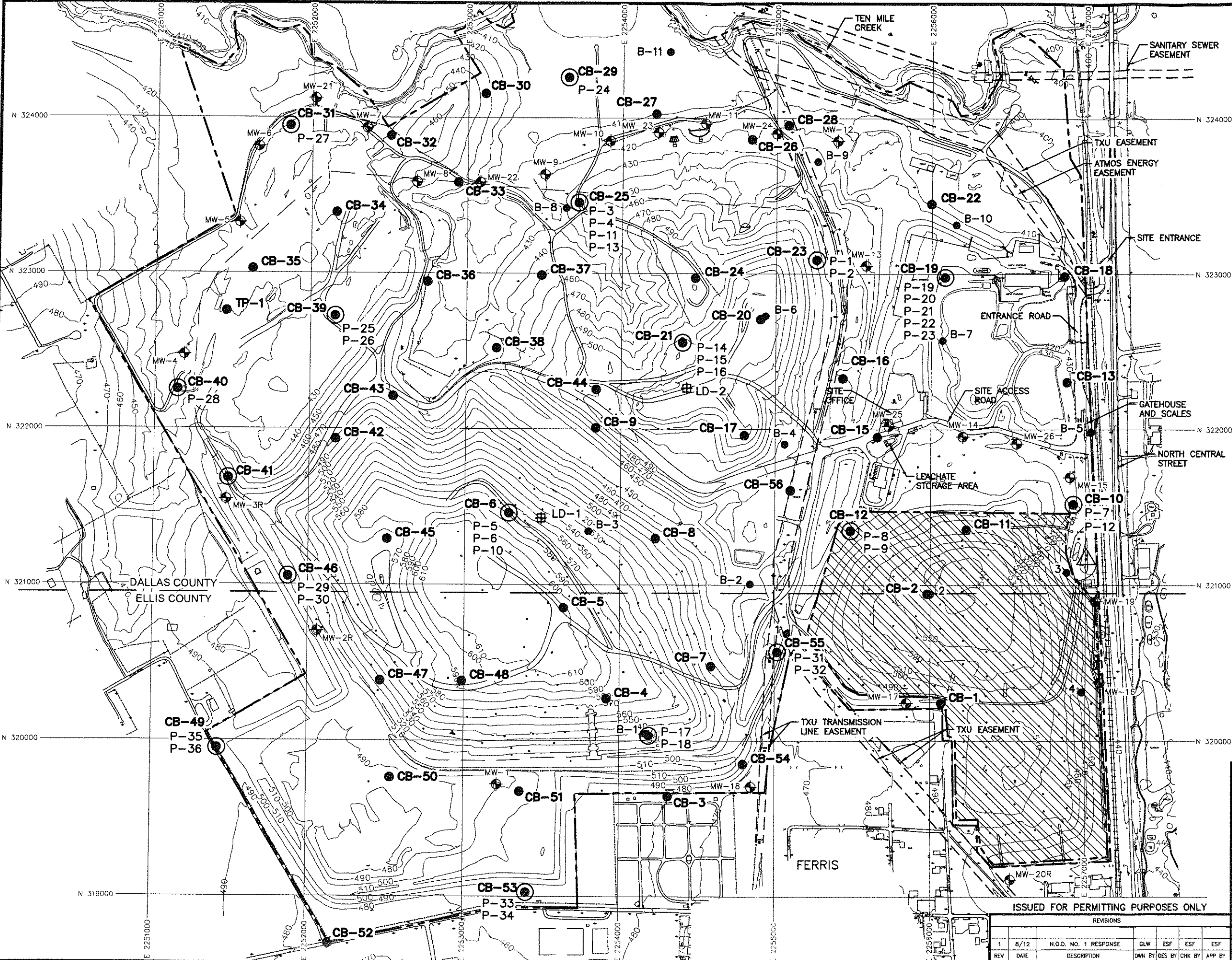
Sincerely,



Arten J. Avakian, P.G.  
Municipal Solid Waste Permits Section  
Waste Permits Division  
Texas Commission on Environmental Quality

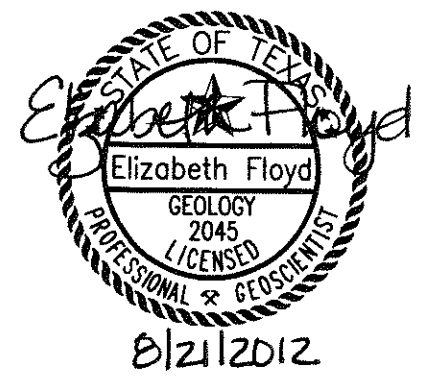
AJA/fp

cc: Ms. Paula Carboni, Waste Management of Texas, Inc., Ferris  
Ms. Elizabeth Floyd, P.G., Biggs & Mathews Environmental, Mansfield



- LEGEND**
- PERMIT BOUNDARY
  - LANDFILL FOOTPRINT
  - 410 EXISTING 10' GROUND CONTOUR
  - MW-5 EXISTING MONITORING WELL
  - CB-17 BORING/TEST PIT
  - P-1 PIEZOMETER
  - ⊕ LD-1 LARGE DIAMETER BORING
  - ▨ PRE-SUBTITLE D AREA WITH FINAL COVER

- NOTES:**
1. MONITORING WELL LOCATION MAP MODIFIED FROM ORIGINAL HDR DRAWING.
  2. EXISTING CONTOURS COMPILED BY AEROMETRIC FROM AERIAL PHOTOGRAPHY, FLOWN MARCH 6, 2011. COORDINATE SYSTEM IS BASED ON TEXAS STATE PLANE NAD 27, TEXAS NORTH CENTRAL ZONE, US FEET.
  3. PLEASE SEE ATTACHMENT E, SECTION 4 FOR INFORMATION EXPLAINING THE VARIOUS SETS OF SOIL BORINGS.



**BORING AND WELL LOCATION MAP**  
**WASTE MANAGEMENT OF TEXAS, INC.**  
**SKYLINE LANDFILL**  
**MAJOR PERMIT AMENDMENT**


**BIGGS & MATHEWS**  
 ENVIRONMENTAL  
 CONSULTING ENGINEERS  
 MANSFIELD • WICHITA FALLS  
 817-563-1144

ISSUED FOR PERMITTING PURPOSES ONLY

| REVISIONS |      |                       |        |        |        |        | DATE                      | FIGURE |
|-----------|------|-----------------------|--------|--------|--------|--------|---------------------------|--------|
| 1         | 8/12 | N.O.D. NO. 1 RESPONSE | GLW    | ESF    | ESF    | ESF    | 04/12                     | E2-2   |
| REV       | DATE | DESCRIPTION           | DWN BY | DES BY | CHK BY | APP BY | SCALE : GRAPHIC           |        |
|           |      |                       |        |        |        |        | DWG : E2-2_BoringLocs.dwg |        |

J:\101\01\120\ATT E\E2-2\_BoringLocs.dwg Layout: Layout 1 User: gwhite

# LOG OF BORING NO. CB-56

**Project Description: Skyline Recycling and Disposal Facility**  
**1201 North Central Avenue, Ferris**

**Biggs and Mathews**  
 1700 Robert Road  
 Mansfield TX 76063  
 Phone: 817-563-1144  
 Fax: 817-561-1244

BME LOG DISPLAY TO TENTHS SKYLINE.GPJ BEM DATA TEMPLATE.GDT 7/31/12

| Depth, feet          | Samples | Symbol / USCS | Location: <b>E 2255099.8 N 321607.3</b>   | Hand Penetrometer, tsf | Penetration Blows/Foot | Moisture Content, % | Unit Dry Weight, lb/cu ft. | Liquid Limit | Plastic Limit | Plasticity Index | % Passing No. 200 Sieve | Unc. Compressive Strength, tsf |
|----------------------|---------|---------------|---|------------------------|------------------------|---------------------|----------------------------|--------------|---------------|------------------|-------------------------|--------------------------------|
|                      |         |               | Surface El.: <b>472.9 ft. msl</b><br>Completion Depth: <b>140.0 ft.</b><br>Date Boring Started: <b>7/21/11</b><br>Date Boring Completed: <b>7/22/11</b> |                        |                        |                     |                            |              |               |                  |                         |                                |
| MATERIAL DESCRIPTION |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 5                    |         |               | CLAY, tan (FILL)  |                        |                        |                     |                            |              |               |                  |                         |                                |
| 10                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 15                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 18                   | U       |               | ***** Begin 1991 Boring Log - See Note 1 *****  | 456.1                  |                        |                     |                            |              |               |                  |                         |                                |
| 20                   |         |               | Firm brown clay w/ organic material (FILL)  | 452.1                  |                        |                     |                            |              |               |                  |                         |                                |
| 22                   | U       |               | Very stiff tan and gray clay w/ weathered calcareous nodules and selenite (FILL)  | 448.1                  |                        |                     |                            |              |               |                  |                         |                                |
| 25                   |         |               | Hard tan and gray clay w/ iron stains (CH)  | 442.1                  |                        | 27                  |                            | 79           | 24            | 55               |                         |                                |
| 28                   | U       |               | Hard dark gray clay   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 30                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 32                   | U       |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 35                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 38                   | U       |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 40                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 42                   | U       |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 45                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 48                   | U       |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 50                   |         |               | ***** End 1991 Boring Log *****   | 421.1                  |                        |                     |                            |              |               |                  |                         |                                |
| 52                   | U       |               | CLAY, dark gray, hard (CH)  |                        |                        |                     |                            |              |               |                  |                         |                                |
| 55                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 58                   | U       |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 60                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 62                   | U       |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 65                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 68                   | U       |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 70                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 72                   | C1      |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 75                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 78                   | U       |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 80                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 82                   | C2      |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 85                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 88                   | U       |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 90                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 92                   | C3      |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 95                   |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 98                   | U       |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 100                  |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |

Drilling Contractor: **LandTec**  
 Drilling Method: **Auger and Core**  
 Sampling Method: **Core**  
 Geologist/Engineer: **Jeremy Featherston**  
 Project No.: **101.01.120**

| Groundwater Observations |       |
|--------------------------|-------|
| Date                     | Depth |
|                          |       |
|                          |       |
|                          |       |

Remarks: Grouted. Note 1: Elevation 456.1' - 410.9' drilled by HDR as part of the 1991 permit application. Lithologic descriptions for that interval are from original boring log.



# LOG OF BORING NO. CB-56

**Project Description: Skyline Recycling and Disposal Facility**  
**1201 North Central Avenue, Ferris**

**Biggs and Mathews**  
 1700 Robert Road  
 Mansfield TX 76063  
 Phone: 817-563-1144  
 Fax: 817-561-1244

| Depth, feet | Samples | Symbol / USCS | Location: <b>E 2255099.8 N 321607.3</b>   | Hand Penetrometer, tsf | Penetration Blows/Foot | Moisture Content, % | Unit Dry Weight, lb/cu ft. | Liquid Limit | Plastic Limit | Plasticity Index | % Passing No. 200 Sieve | Unc. Compressive Strength, tsf |
|-------------|---------|---------------|---|------------------------|------------------------|---------------------|----------------------------|--------------|---------------|------------------|-------------------------|--------------------------------|
|             |         |               | Surface El.: <b>472.9 ft. msl</b><br>Completion Depth: <b>140.0 ft.</b><br>Date Boring Started: <b>7/21/11</b><br>Date Boring Completed: <b>7/22/11</b> |                        |                        |                     |                            |              |               |                  |                         |                                |
|             |         |               | MATERIAL DESCRIPTION  |                        |                        |                     |                            |              |               |                  |                         |                                |
| 105         | C4      |               | CLAY, dark gray, hard (CH) (continued)  |                        |                        |                     |                            |              |               |                  |                         |                                |
| 110         | C5      |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 115         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 120         | C6      |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 125         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 130         | C7      |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 135         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 140         | C8      |               |   | 332.9                  |                        |                     |                            |              |               |                  |                         |                                |
| 145         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 150         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 155         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 160         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 165         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 170         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 175         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 180         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 185         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 190         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 195         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |
| 200         |         |               |   |                        |                        |                     |                            |              |               |                  |                         |                                |

BME LOG DISPLAY TO TENTHS - SKYLINE.GPJ BDM DATA TEMPLATE.GDT 7/31/12

Drilling Contractor: **LandTec**  
 Drilling Method: **Auger and Core**  
 Sampling Method: **Core**  
 Geologist/Engineer: **Jeremy Featherston**  
 Project No.: **101.01.120**

| Groundwater Observations |       |
|--------------------------|-------|
| Date                     | Depth |
|                          |       |
|                          |       |

Remarks: Grouted. Note 1: Elevation 456.1' - 410.9' drilled by HDR as part of the 1991 permit application. Lithologic descriptions for that interval are from original boring log.



The stratification lines represent approximate strata boundaries. In situ, the transition may be gradual.

# LOG OF BORING NO. CB-33 WASTE MANAGEMENT OF TEXAS SKYLINE LANDFILL EXPANSION FERRIS, TEXAS

TYPE OF BORING: Undisturbed      LOCATION: See Plan Of Borings

| DEPTH, FT. | SYMBOL | SAMPLES | SOIL DESCRIPTION   | % PASSING NO. 200 SIEVE | LIQUID LIMIT | PLASTIC LIMIT | MOISTURE CONTENT % | SHEAR STRENGTH IN TONS/SQ. FT. |     |     | UNIT DRY WT. LBS./CU. FT. |
|------------|--------|---------|--|-------------------------|--------------|---------------|--------------------|--------------------------------|-----|-----|---------------------------|
|            |        |         |  |                         |              |               |                    | 0.5                            | 1.0 | 1.5 |                           |
|            |        |         | ELEVATION: 432.0   |                         |              |               |                    |                                |     |     |                           |
|            |        |         | Stiff brown clay<br>(CH)                                   |                         |              |               |                    |                                |     |     |                           |
| 5          |        |         | Very stiff tan and gray clay<br>w/ selenite filled fissure |                         |              |               |                    |                                |     |     |                           |
| 10         |        |         | -w/ vertical iron stained fissure<br>(CH)                  |                         |              |               |                    |                                |     |     |                           |
| 15         |        |         | Hard dark gray clay  |                         | 65           | 23            |                    |                                |     |     |                           |
| 20         |        |         |  |                         |              |               |                    |                                |     |     |                           |
| 25         |        |         |  |                         |              |               |                    |                                |     |     |                           |
| 30         |        |         |  |                         |              |               |                    |                                |     |     |                           |
| 35         |        |         |  |                         |              |               |                    |                                |     |     |                           |

**MONITORING WELL DATA SHEETS**



# Monitor Well Data Sheet

Permittee or Site Name: Skyline Recycling and Disposal Facility  
 County: Dallas  
 Date of Monitor Well Installation: 5/23/95  
 Monitor Well Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Monitor Well Groundwater Gradient Position:  
 Upgradient X Downgradient \_\_\_\_\_

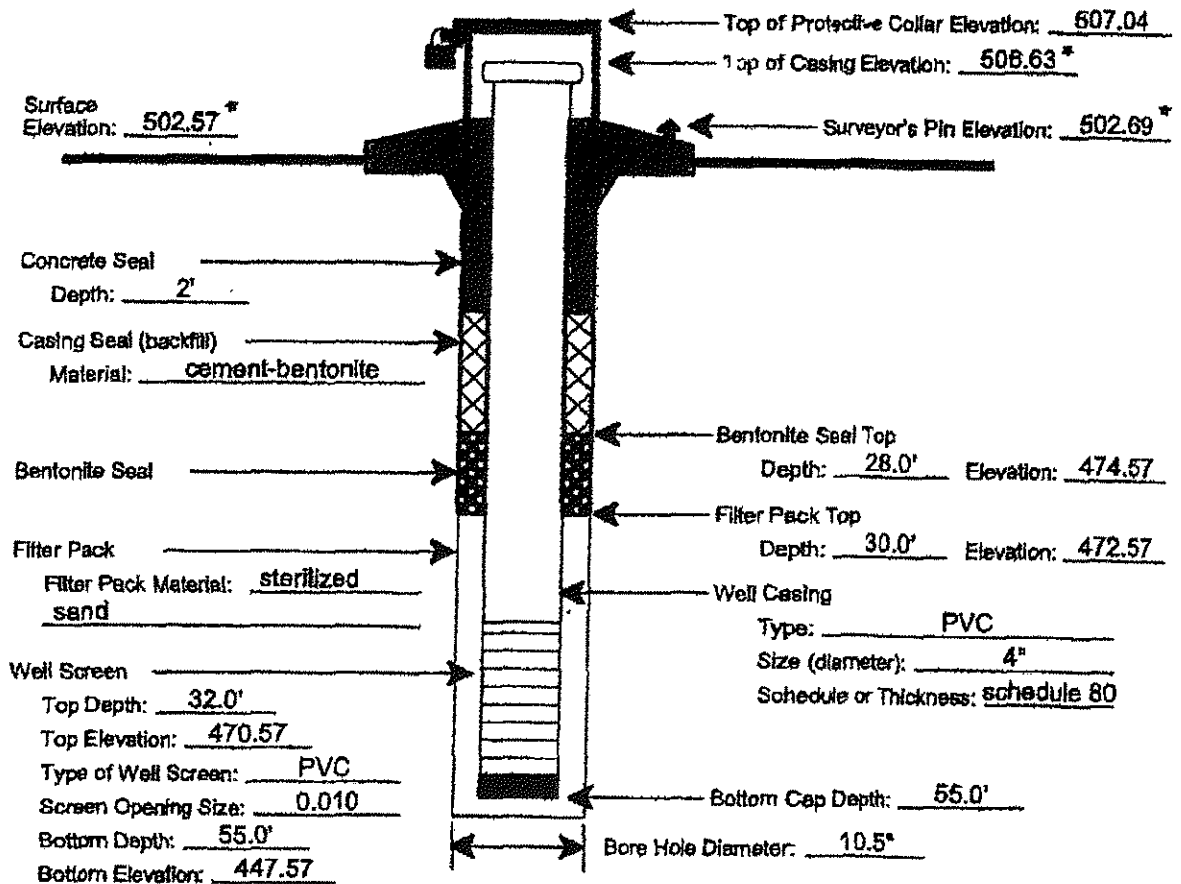
MSW Permit No.: 42-C  
 Monitor Well I.D. No.: MW-1  
 Date of Monitor Well Development: 7/25/95  
 Monitor Well Driller Name: William P. McGuire  
 License No.: 2753M

**NOTES:**

- Report all depths from Surface Elevation and all Elevations relative to Mean Sea Level (MSL), to nearest hundredth of a foot.
- Diameter of boring should be at least 4 inches larger than diameter of well casing.
- Use flush screw joint casing only, 2-inch diameter or larger, with o-rings or PTFE tape in joints (4-inch diameter recommend).
- Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist, or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.  
 Static Water Level Elevation (with respect to MSL) after Well Development: 488.18  
 Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock Type of Casing Protection: 6" Steel Tube  
 Concrete Surface Pad (with steel reinforcement) Dimensions: 6' x 6'



TCEQ-10308

\*Modified in 1999

# A. Monitor Well Data Sheet

Texas Department of Health  
Division of Solid Waste Management  
SE 67 (3/1/89-B)

Permittee or Site Name: Skyline RDF

TDH Permit No.: 42-C

County: Dallas and Ellis Counties

Monitor Well I.D. No.: MW-4

Date of Monitor Well Installation: 5-12-95

Date of Monitor Well

Monitor Well: State Plane N: 322475.770 E: 2251184.034

Development: \*

Monitor Well Groundwater

Monitor Well Driller

Gradient: Upgradient  Downgradient  Cross-Gradient  Name: William P. McGuire

License No.: 2763M

## NOTE:

(A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well.

(B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level.

(C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3".

(D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Teflon Taping Casing Joints.

(E) Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.

Static Water Level Elevation (with respect to MSL) after Well Development: \*

Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock

Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad.

Surface Pad Dimensions: 6' x 6' square

Surface Elevation: 433.82

Top of Protective Collar Elevation: 437.24

Top of Casing Elevation: 437.00

Surveyor's Pin Elevation: 434.32

Concrete Seal  
Depth: 2' bgs  
Casing Seal (Backfill)  
Material: cement-bentonite

Bentonite Seal

Filter Pack

Filter Pack Material: #20-#40 Sterilized Sand or Glass Beads

Bentonite Seal Top  
Depth: 3' bgs Elevation: 430.82

Filter Pack Top  
Depth: 5' bgs Elevation: 428.82

Well Casing  
Type: PVC  
Size (diameter): 4"  
Schedule or Thickness: schedule 80

Well Screen

Top Depth: 7' bgs

Top Elevation: 426.82

Type of Well Screen: PVC

Screen Opening Size:

0.010"

Bottom Cap (Depth: 25' bgs)

Bore Hole Diameter: 10.5" min.

\* No water in well through 7-25-95.

# A. Monitor Well Data Sheet

Texas Department of Health  
Division of Solid Waste Management  
SE. 67 (3/1/89-B)

Permittee or Site Name: Skyline RDF

TDH Permit No.: 42-C

County: Dallas and Ellis Counties

Monitor Well I.D. No.: MW-6

Date of Monitor Well Installation: 5-11-95

Date of Monitor Well

Monitor Well: State Plane N: 323815.262 E: 2251654.426

Development: \*

Monitor Well Groundwater

Monitor Well Driller

Gradient: Upgradient  Downgradient  Cross-Gradient  Name: William P. McGuire

License No.: 2763M

## NOTE:

(A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well.

(B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level.

(C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3".

(D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Teflon Taping Casing Joints.

(E) Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.

Static Water Level Elevation (with respect to MSL) after Well Development: \*

Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock

Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad.

Surface Pad Dimensions:

6' x 6' square

Surface Elevation: 416.81

Top of Protective Collar Elevation: 420.21

Top of Casing Elevation: 419.96

Surveyor's Pin Elevation: 417.31

Concrete Seal

Depth: 2' bgs

Casing Seal (Backfill)

Material: cement-bentonite

Bentonite Seal

Filter Pack

Filter Pack Material: #20-#40

Sterilized Sand or Glass Beads

Bentonite Seal Top  
Depth: 3' bgs Elevation: 413.81

Filter Pack Top  
Depth: 5' bgs Elevation: 411.81

Well Casing

Type: PVC

Size (diameter): 4"

Schedule or Thickness: schedule 80

Well Screen

Top Depth: 7' bgs

Top Elevation: 409.81

Type of Well Screen: PVC

Screen Opening Size:

0.010"

Bottom Cap (Depth: 25' bgs)

Bore Hole Diameter: 10.5" min.

\* Trace of water in well at EL.394.81.

# A. Monitor Well Data Sheet

Texas Department of Health  
Division of Solid Waste Management  
SE. 67 (3/1/89-B)

Permittee or Site Name: Skyline RDF

TDH Permit No.: 42-C

County: Dallas and Ellis Counties

Monitor Well I.D. No.: MW-7

Date of Monitor Well Installation: 5-10-95

Date of Monitor Well

Monitor Well: State Plane N: 323936.083 E: 2252352.735

Development: \*

Monitor Well Groundwater

Monitor Well Driller

Gradient: Upgradient  Downgradient  Cross-Gradient

Name: William P. McGuire

License No.: 2763M

**NOTE:**

- (A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well.
- (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level.
- (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3".
- (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Teflon Taping Casing Joints.
- (E) Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.

Static Water Level Elevation (with respect to MSL) after Well Development: \*

Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock

Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad.

Surface Pad Dimensions: 6' x 6' square

Surface Elevation: 429.73

Top of Protective Collar Elevation: 432.92  
Top of Casing Elevation: 432.67  
Surveyor's Pin Elevation: 430.23

Concrete Seal  
Depth: 2' bgs  
Casing Seal (Backfill)  
Material: cement-bentonite

Bentonite Seal  
Filter Pack

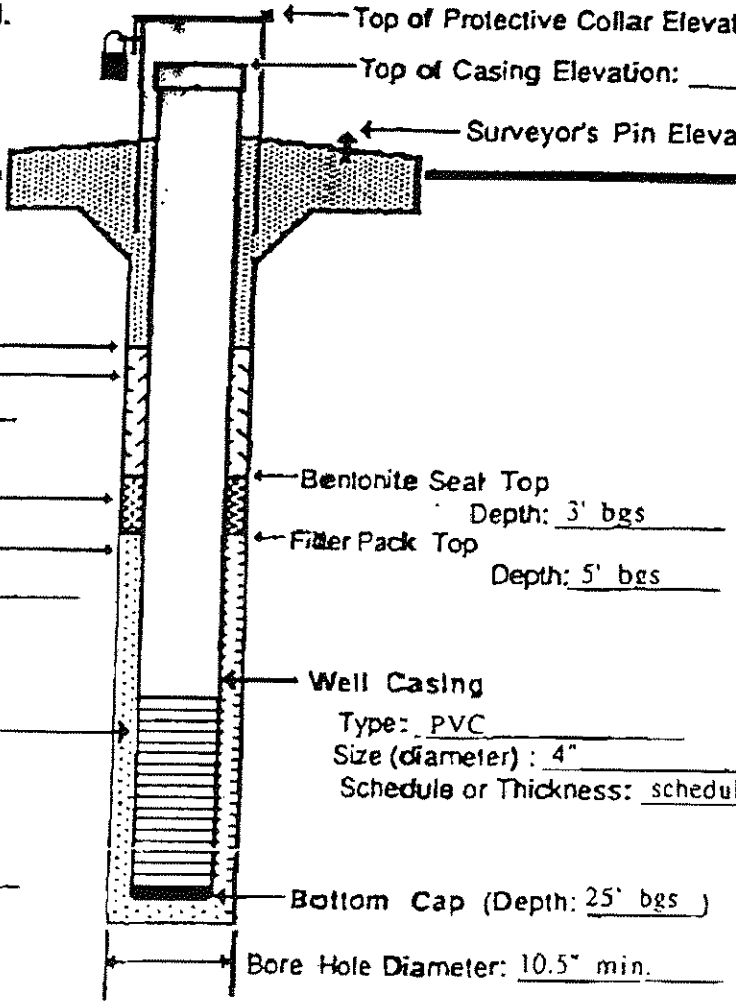
Filter Pack Material: #20-#40 Sterilized Sand or Glass Beads

Well Screen  
Top Depth: 7' bgs  
Top Elevation: 422.73  
Type of Well Screen: PVC  
Screen Opening Size: 0.010"

Bentonite Seal Top  
Depth: 3' bgs Elevation: 426.73  
Filter Pack Top  
Depth: 5' bgs Elevation: 424.73

Well Casing  
Type: PVC  
Size (diameter): 4"  
Schedule or Thickness: schedule 80

Bottom Cap (Depth: 25' bgs)  
Bore Hole Diameter: 10.5" min.



\* No water in well through 7-25-95.

# A. Monitor Well Data Sheet

Texas Department of Health  
Division of Solid Waste Management  
SE. 67 (3/1/89-8)

Permittee or Site Name: Skyline RDF  
County: Dallas and Ellis Counties  
Date of Monitor Well Installation: 5-23-95  
Monitor Well: State Plane N: 323852.491 E: 2253920.281  
Monitor Well Groundwater

TDH Permit No.: 42-C  
Monitor Well I.D. No.: MW-10  
Date of Monitor Well Development: 7-25-95  
Monitor Well Driller Name: William P. McGuire  
License No.: 2763M

Gradient: Upgradient  Downgradient  Cross-Gradient

**NOTE:**

- (A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well.
- (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level.
- (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3".
- (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Teflon Taping Casing Joints.
- (E) Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.

Static Water Level Elevation (with respect to MSL) after Well Development: 410.15

Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad.

Surface Pad Dimensions: 6' x 6' square

Surface Elevation: 415.30

Top of Protective Collar Elevation: 417.78

Top of Casing Elevation: 417.53

Surveyor's Pin Elevation: 415.80

Concrete Seal  
Depth: 2' bgs  
Casing Seal (Backfill)  
Material: cement-bentonite

Bentonite Seal  
Filter Pack

Filter Pack Material: #20-#40 Sterilized Sand or Glass Beads

Bentonite Seal Top  
Depth: 21' bgs Elevation: 394.31

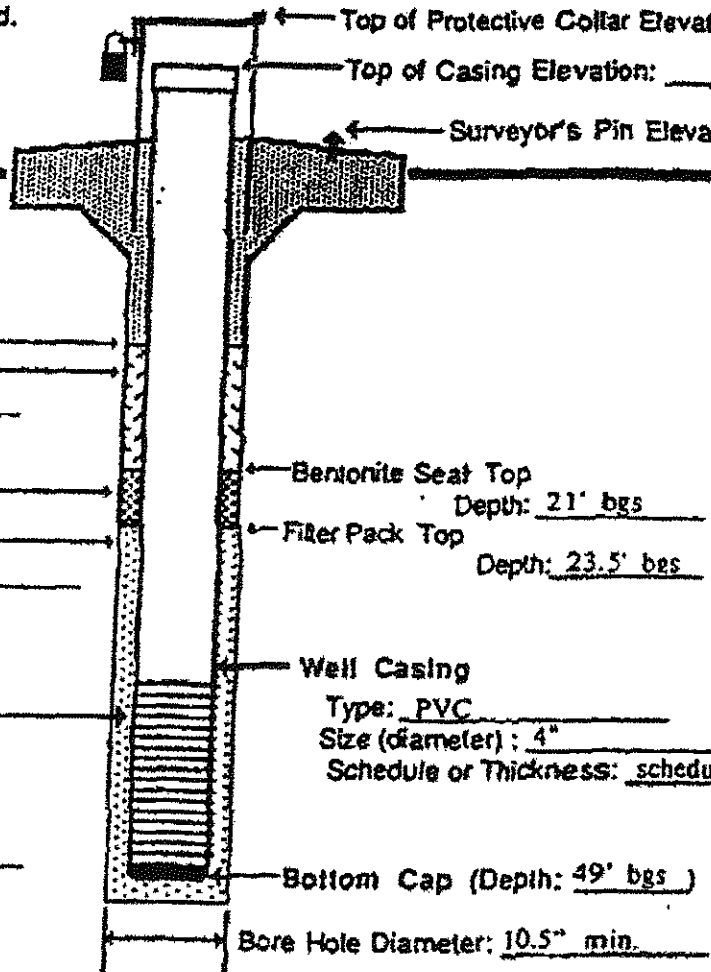
Filter Pack Top  
Depth: 23.5' bgs Elevation: 391.80

Well Screen  
Top Depth: 26' bgs  
Top Elevation: 389.30  
Type of Well Screen: PVC  
Screen Opening Size: 0.010"

Well Casing  
Type: PVC  
Size (diameter): 4"  
Schedule or Thickness: schedule 80

Bottom Cap (Depth: 49' bgs)

Bore Hole Diameter: 10.5" min.



# A. Monitor Well Data Sheet

Texas Department of Health  
Division of Solid Waste Management  
SE. 67 (3/1/89-B)

Permittee or Site Name: Skyline RDF  
County: Dallas and Ellis Counties  
Date of Monitor Well Installation: 5-17-95  
Monitor Well: State Plane N: 323967.994 E: 2254536.066  
Monitor Well Groundwater

TDH Permit No.: 42-C  
Monitor Well I.D. No.: MW-11  
Date of Monitor Well Development: 7-25-95  
Monitor Well Driller Name: William P. McGuire  
License No.: 2763M

Gradient: Upgradient  Downgradient  Cross-Gradient

**NOTE:**

- (A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well.
- (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level.
- (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3".
- (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Teflon Taping Casing Joints.
- (E) Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.

Static Water Level Elevation (with respect to MSL) after Well Development: 411.45

Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad.

Surface Pad Dimensions: 6' x 6' square

Surface Elevation: 415.10

Top of Protective Collar Elevation: 417.82

Top of Casing Elevation: 417.59

Surveyor's Pin Elevation: 415.60

Concrete Seal  
Depth: 2' bgs  
Casing Seal (Backfill)  
Material: cement-bentonite

Bentonite Seal  
Filter Pack  
Bentonite Seal Top  
Depth: 9.5' bgs Elevation: 405.60

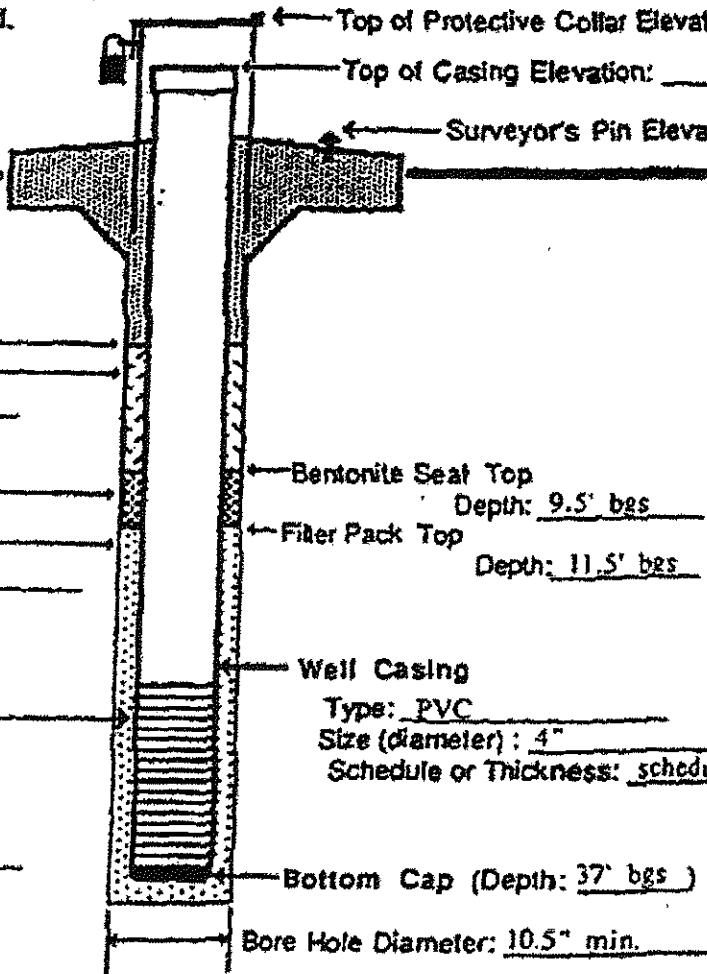
Filter Pack Material: #20-#40 Sterilized Sand or Glass Beads  
Filter Pack Top  
Depth: 11.5' bgs Elevation: 403.60

Well Screen  
Top Depth: 14' bgs  
Top Elevation: 401.10  
Type of Well Screen: PVC  
Screen Opening Size: 0.010"

Well Casing  
Type: PVC  
Size (diameter): 4"  
Schedule or Thickness: schedule 80

Bottom Cap (Depth: 37' bgs)

Bore Hole Diameter: 10.5" min.



# A. Monitor Well Data Sheet

Texas Department of Health  
Division of Solid Waste Management  
SE. 67 (3/1/89-B)

Permittee or Site Name: Skyline RDF  
 County: Dallas and Ellis Counties  
 Date of Monitor Well Installation: 5-1-95  
 Monitor Well: State Plane N: 323852.621 E: 2255390.161  
 Monitor Well Groundwater  
 Gradient: Upgradient  Downgradient  Cross-Gradient

TDH Permit No.: 42-C  
 Monitor Well I.D. No.: MW-12  
 Date of Monitor Well  
 Development: 8-4-95  
 Monitor Well Driller  
 Name: William P. McGuire  
 License No.: 2763M

**NOTE:**

- (A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well.
- (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level.
- (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3".
- (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Teflon Taping Casing Joints.
- (E) Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.  
 Static Water Level Elevation (with respect to MSL) after Well Development: 398.22  
 Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad.  
 Surface Pad Dimensions: 6' x 6' square

Surface Elevation: 417.83

Top of Protective Collar Elevation: 421.37  
 Top of Casing Elevation: 420.95  
 Surveyor's Pin Elevation: 418.33

Concrete Seal  
 Depth: 2' bgs  
 Casing Seal (Backfill)  
 Material: cement-bentonite

Bentonite Seal  
 Filter Pack

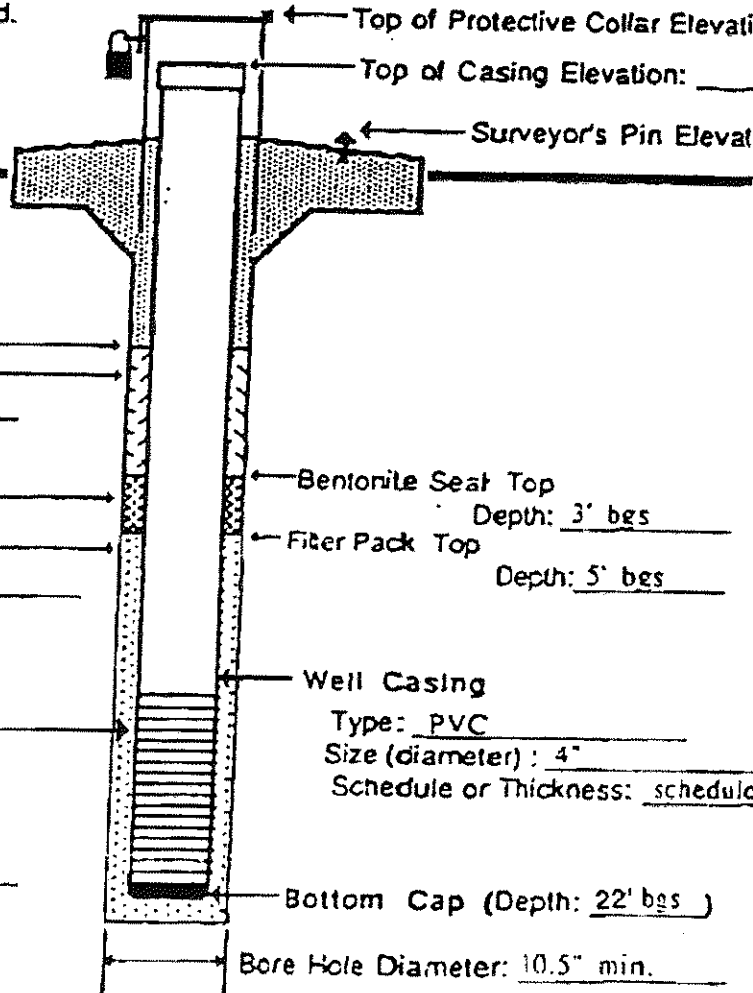
Filter Pack Material: #20-#40 Sterilized Sand or Glass Beads

Bentonite Seal Top  
 Depth: 3' bgs Elevation: 414.83  
 Filter Pack Top  
 Depth: 5' bgs Elevation: 412.83

Well Screen  
 Top Depth: 7' bgs  
 Top Elevation: 410.83  
 Type of Well Screen: PVC  
 Screen Opening Size: 10"

Well Casing  
 Type: PVC  
 Size (diameter): 4"  
 Schedule or Thickness: schedule 80

Bottom Cap (Depth: 22' bgs)  
 Bore Hole Diameter: 10.5" min.



# A. Monitor Well Data Sheet

Texas Department of Health  
Division of Solid Waste Management  
SE. 67 (3/1/89-B)

Permittee or Site Name: Skyline RDF  
County: Dallas and Ellis Counties  
Date of Monitor Well Installation: 5-15-95  
Monitor Well: State Plane N: 323053.928 E: 2255577.483  
Monitor Well Groundwater  
Gradient: Upgradient  Downgradient  Cross-Gradient

TDH Permit No.: 42-C  
Monitor Well I.D. No.: MW-13  
Date of Monitor Well  
Development: \*  
Monitor Well Driller  
Name: William P. McGuire  
License No.: 2763M

**NOTE:**

- (A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well.
- (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level.
- (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3".
- (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Teflon Taping Casing Joints.
- (E) Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.

Static Water Level Elevation (with respect to MSL) after Well Development: \*

Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad.

Surface Pad Dimensions:  
6' x 6' square

Surface Elevation: 432.23

Top of Protective Collar Elevation: 435.46  
Top of Casing Elevation: 435.22  
Surveyor's Pin Elevation: 432.73

Concrete Seal  
Depth: 2' bgs  
Casing Seal (Backfill)  
Material: cement-bentonite

Bentonite Seal  
Filter Pack  
Bentonite Seal Top  
Depth: 3' bgs Elevation: 429.23

Filter Pack Material: #20-#40 Sterilized Sand or Glass Beads  
Filter Pack Top  
Depth: 5' bgs Elevation: 427.23

Well Screen  
Top Depth: 7' bgs  
Top Elevation: 425.23

Well Casing  
Type: PVC  
Size (diameter): 4"  
Schedule or Thickness: schedule 80

Type of Well Screen: PVC

Screen Opening Size:  
0.010"

Bottom Cap (Depth: 25' bgs)

Bore Hole Diameter: 10.5" min.

\* No water in well through 7-25-95.



# A. Monitor Well Data Sheet

Texas Department of Health  
Division of Solid Waste Management  
SE. 67 (3/1/89-B)

Permittee or Site Name: Skyline RDF  
 County: Dallas and Ellis Counties  
 Date of Monitor Well Installation: 9/20/94  
 Monitor Well: Latitude: 32° 32.83' Longitude: 96° 40.25'  
 Monitor Well Groundwater  
 Gradient: Upgradient Downgradient

TDH Permit No.: 42-A  
 Monitor Well I.D. No.: MW-14  
 Date of Monitor Well  
 Development: \*  
 Monitor Well Driller  
 Name: William P. McGuire  
 License No.: 2763M

**NOTE:**

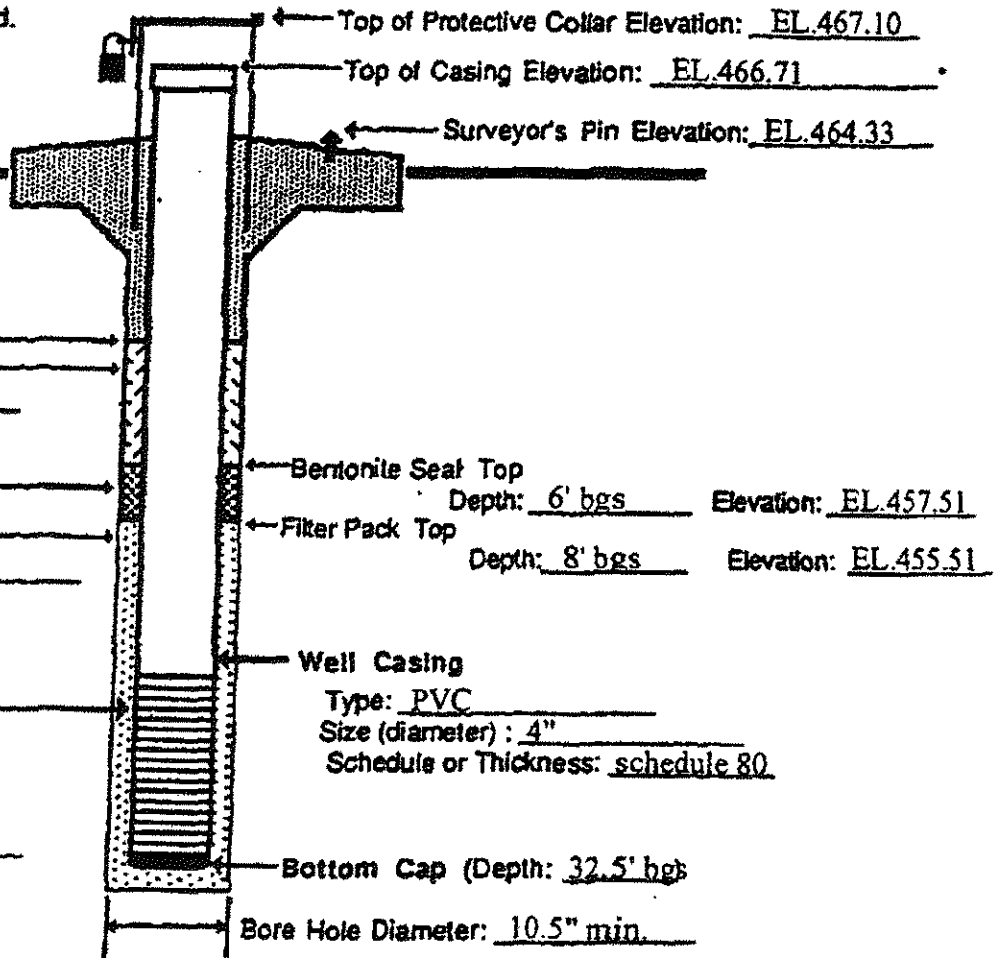
- (A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well.
- (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level.
- (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3".
- (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Teflon Taping Casing Joints.
- (E) Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.  
 Static Water Level Elevation (with respect to MSL) after Well Development: \*  
 Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad.  
 Surface Pad Dimensions: 6' x 6' square

Surface Elevation: EL.463.51



Concrete Seal  
 Depth: 2' bgs  
 Casing Seal (Backfill)  
 Material: cement-bentonite

Bentonite Seal  
 Filter Pack

Filter Pack Material: #20 - #40 Sterilized Sand or Glass Beads

Well Screen  
 Top Depth: 10' bgs  
 Top Elevation: EL.453.51  
 Type of Well Screen: PVC  
 Screen Opening Size: 0.010"

Top of Protective Collar Elevation: EL.467.10  
 Top of Casing Elevation: EL.466.71  
 Surveyor's Pin Elevation: EL.464.33  
 Bentonite Seal Top  
 Depth: 6' bgs Elevation: EL.457.51  
 Filter Pack Top  
 Depth: 8' bgs Elevation: EL.455.51  
 Well Casing  
 Type: PVC  
 Size (diameter): 4"  
 Schedule or Thickness: schedule 80  
 Bottom Cap (Depth: 32.5' bgs)  
 Bore Hole Diameter: 10.5" min.

\* To be developed when sufficient water accumulates in well.

# A. Monitor Well Data Sheet

Texas Department of Health  
Division of Solid Waste Management  
SE. 67 (3/1/89-B)

Permittee or Site Name: Skvline RDF

County: Dallas and Ellis Counties

Date of Monitor Well Installation: 9/20/94

Monitor Well: Latitude: 32° 32.83' Longitude: 96° 40.25'

Monitor Well Groundwater

Gradient: Upgradient Downgradient

TDH Permit No.: 42-A

Monitor Well I.D. No.: MW-15

Date of Monitor Well

Development: \*

Monitor Well Driller

Name: William P. McGuire

License No.: 2763M

## NOTE:

- (A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well.
- (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level.
- (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3".
- (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Teflon Taping Casing Joints.
- (E) Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.

Static Water Level Elevation (with respect to MSL) after Well Development: \*

Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock

Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad.

Surface Pad Dimensions: 6' x 6' square

Surface Elevation: EL.448.66

Top of Protective Collar Elevation: EL.452.60

Top of Casing Elevation: EL.452.20

Surveyor's Pin Elevation: EL.449.60

Concrete Seal

Depth: 2' bgs

Casing Seal (Backfill)

Material: cement-bentonite

Bentonite Seal

Filter Pack

Filter Pack Material: #20 - #40

Sterilized Sand or Glass Beads

Bentonite Seal Top

Depth: 4' bgs

Elevation: EL.444.66

Filter Pack Top

Depth: 6' bgs

Elevation: EL.442.66

Well Casing

Type: PVC

Size (diameter): 4"

Schedule or Thickness: schedule 80

Well Screen

Top Depth: 8' bgs

Top Elevation: EL.440.66

Type of Well Screen: PVC

Screen Opening Size:

0.010"

Bottom Cap (Depth: 25.5' bgs)

Bore Hole Diameter: 10.5" min.

\* To be developed when sufficient water accumulates in well.

# A. Monitor Well Data Sheet

Texas Department of Health  
Division of Solid Waste Management  
SE. 67 (3/1/89-B)

Permittee or Site Name: Skyline RDF

County: Dallas and Ellis Counties

Date of Monitor Well Installation: 9/20/94

Monitor Well: Latitude: 32° 32.83' Longitude: 96° 40.25'

Monitor Well Groundwater

Gradient: Upgradient Downgradient

TDH Permit No.: 42-A

Monitor Well I.D. No.: MW-16

Date of Monitor Well

Development: \*

Monitor Well Driller

Name: William P. McGuire

License No.: 2763M

**NOTE:**

- (A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well.
- (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level.
- (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3".
- (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Teflon Taping Casing Joints.
- (E) Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.

Static Water Level Elevation (with respect to MSL) after Well Development: \*

Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock

Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad.

Surface Pad Dimensions: 6' x 6' square

Surface Elevation: EL.446.36

Top of Protective Collar Elevation: EL.450.03

Top of Casing Elevation: EL.449.56

Surveyor's Pin Elevation: EL.447.13

Concrete Seal  
Depth: 2' bgs  
Casing Seal (Backfill)  
Material: cement-bentonite

Bentonite Seal  
Filter Pack

Filter Pack Material: #20 - #40 Sterilized Sand or Glass Beads

Bentonite Seal Top  
Depth: 3' bgs Elevation: EL.443.36

Filter Pack Top  
Depth: 5' bgs Elevation: EL.441.36

Well Screen  
Top Depth: 7' bgs  
Top Elevation: EL.439.36

Type of Well Screen: PVC

Screen Opening Size:

0.010"

Well Casing  
Type: PVC  
Size (diameter): 4"  
Schedule or Thickness: schedule 80

Bottom Cap (Depth: 24.5' bgs)

Bore Hole Diameter: 10.5" min.

\* To be developed when sufficient water accumulates in well.

# A. Monitor Well Data Sheet

Texas Department of Health  
Division of Solid Waste Management  
SE. 67 (3/1/89-B)

Permittee or Site Name: Skyline RDF

TDH Permit No. : 42-A

County: Dallas and Ellis Counties

Monitor Well I.D. No.: MW-17

Date of Monitor Well Installation: 9/20/94

Date of Monitor Well

Monitor Well: Latitude: 32° 32.83' Longitude: 96° 40.25'

Development: \*

Monitor Well Groundwater

Monitor Well Driller

Gradient: Upgradient Downgradient

Name: William P. McGuire

License No.: 2763M

### NOTE:

- (A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well.
- (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level.
- (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3".
- (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Teflon Taping Casing Joints.
- (E) Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.

Static Water Level Elevation (with respect to MSL) after Well Development : \*

Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock

Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad.

Surface Pad Dimensions: 6' x 6' square

Surface Elevation: EL.489.85

Top of Protective Collar Elevation: EL.493.21

Top of Casing Elevation: EL.492.75

Surveyor's Pin Elevation: EL.490.85

Concrete Seal  
Depth: 2' bgs  
Casing Seal (Backfill)  
Material: cement-bentonite

Bentonite Seal  
Filter Pack

Bentonite Seal Top  
Depth: 31' bgs Elevation: EL.458.85

Filter Pack Top  
Depth: 33' bgs Elevation: EL.456.85

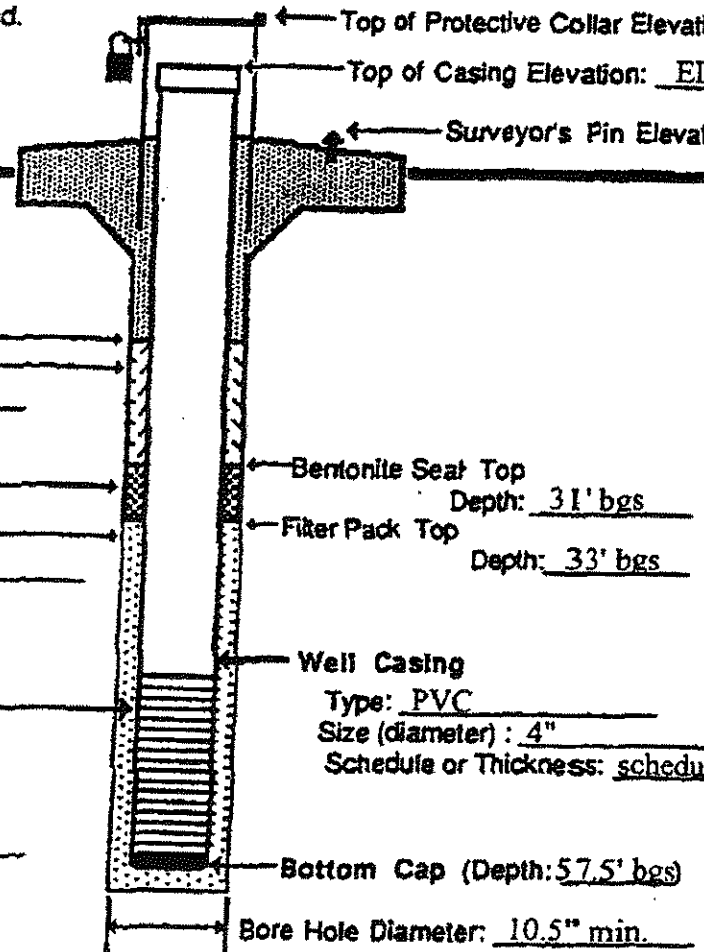
Filter Pack Material: #20 - #40 Sterilized Sand or Glass Beads

Well Screen  
Top Depth: 35' bgs  
Top Elevation: EL.454.85  
Type of Well Screen: PVC  
Screen Opening Size: 0.010"

Well Casing  
Type: PVC  
Size (diameter) : 4"  
Schedule or Thickness: schedule 80

Bottom Cap (Depth: 57.5' bgs)

Bore Hole Diameter: 10.5" min.



\* To be developed when sufficient water accumulates in well.

# A. Monitor Well Data Sheet

Texas Department of Health  
Division of Solid Waste Management  
SE. 67 (3/1/89-B)

Permittee or Site Name: Skyline RDF

TDH Permit No. : 42-A

County: Dallas and Ellis Counties

Monitor Well I.D. No.: MW-18

Date of Monitor Well Installation: 9/20/94

Date of Monitor Well

Monitor Well: Latitude: 32° 32.83' Longitude: 96° 40.25'

Development: \*

Monitor Well Groundwater

Monitor Well Driller

Gradient: Upgradient Downgradient

Name: William P. McGuire

License No.: 2763M

**NOTE:**

- (A) The information shown in the sketch below should be considered the minimum required for an installed ground-water monitor well.
- (B) Report All Depths from Surface Elevation and all Elevations relative to Mean Sea Level.
- (C) The minimum distance between the inside wall of the Bore Hole and the outside of the Well Casing shall be 3".
- (D) Use Flush Screw Joint Casing only, 2" diameter or larger. Recommend 4" diameter minimum & Teflon Taping Casing Joints.
- (E) Well development should continue until water is clear, and pH and conductivity are stable.

Geologist, Hydrologist or Engineer Supervising Well Installation: Pierce L. Chandler, Jr. P.E.

Static Water Level Elevation (with respect to MSL) after Well Development : \*

Name of Geologic Formation(s) in which Well is completed: Taylor Marl

Type of Locking Device: Padlock

Type of Casing Protection: 6" Steel Tube

Concrete Surface Pad - Recommend steel reinforcement in the Surface Pad.

Surface Pad Dimensions: 6' x 6' square

Surface Elevation: EL.467.00

Top of Protective Collar Elevation: EL.470.73

Top of Casing Elevation: EL.470.20

Surveyor's Pin Elevation: EL.467.78

Concrete Seal  
Depth: 2' bgs  
Casing Seal (Backfill)  
Material: cement-bentonite

Bentonite Seal  
Filter Pack

Bentonite Seal Top  
Depth: 21' bgs Elevation: EL.446.00

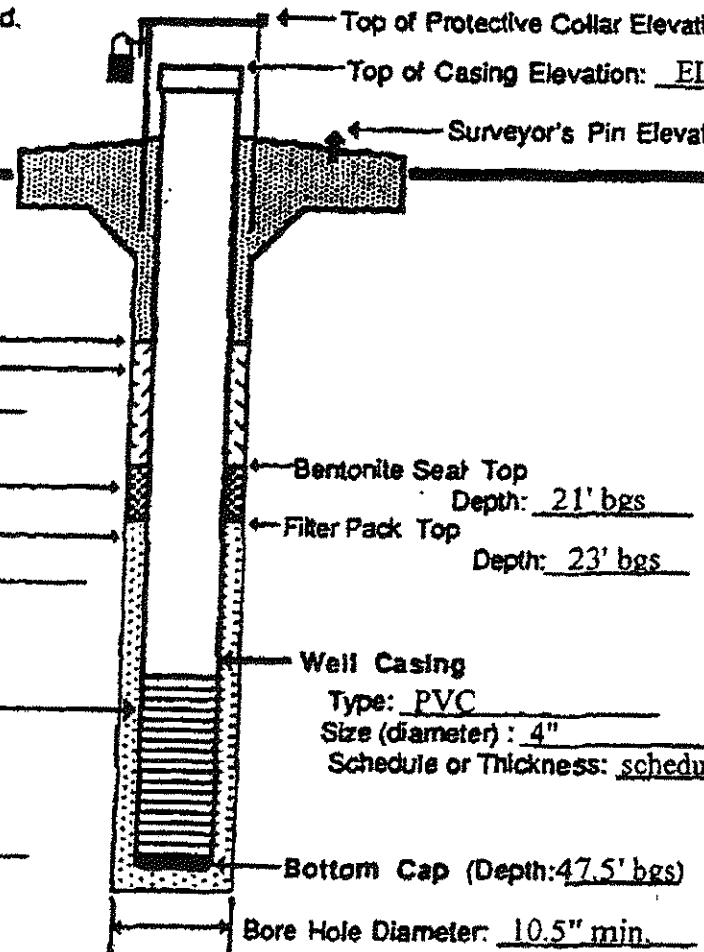
Filter Pack Top  
Depth: 23' bgs Elevation: EL.444.00

Filter Pack Material: #20 - #40 Sterilized Sand or Glass Beads

Well Screen  
Top Depth: 25' bgs  
Top Elevation: EL.442.00  
Type of Well Screen: PVC  
Screen Opening Size: 0.010"

Well Casing  
Type: PVC  
Size (diameter): 4"  
Schedule or Thickness: schedule 80

Bottom Cap (Depth: 47.5' bgs)  
Bore Hole Diameter: 10.5" min.



\* To be developed when sufficient water accumulates in well.