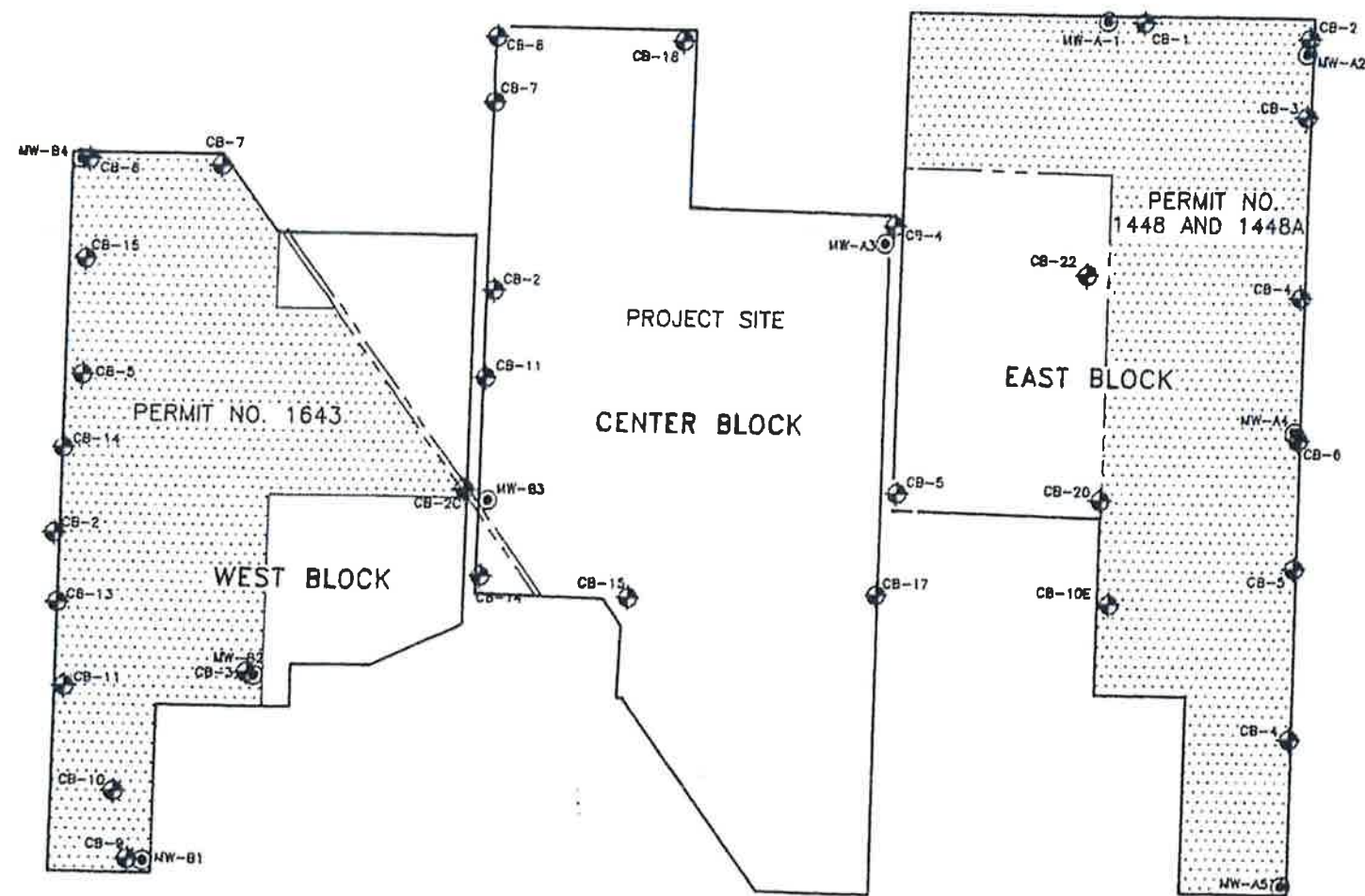


**HAWTHORN PARK LANDFILL
APPENDIX III-4H
PREVIOUS PERMIT DATA**

BORING LOCATION MAP



LEGEND:



- PROPOSED PERMIT BOUNDARY
- EXISTING PERMITTED AREAS
- SOIL BORING
- EXISTING MONITORING WELL

NOTES:

1. MONITORING WELLS MW-A1, A2, A3, A4, AND A5 ARE MONITORING PERMIT NO. 1448 AND 1448A.
2. MONITORING WELLS MW-B1, B2, B3, AND B4 ARE MONITORING PERMIT NO. 1643.

0 150 300 600
SCALE FEET

**HAWTHORN PARK RECLAMATION PROJECT
AND RECYCLING CENTER**
HARRIS COUNTY, TEXAS

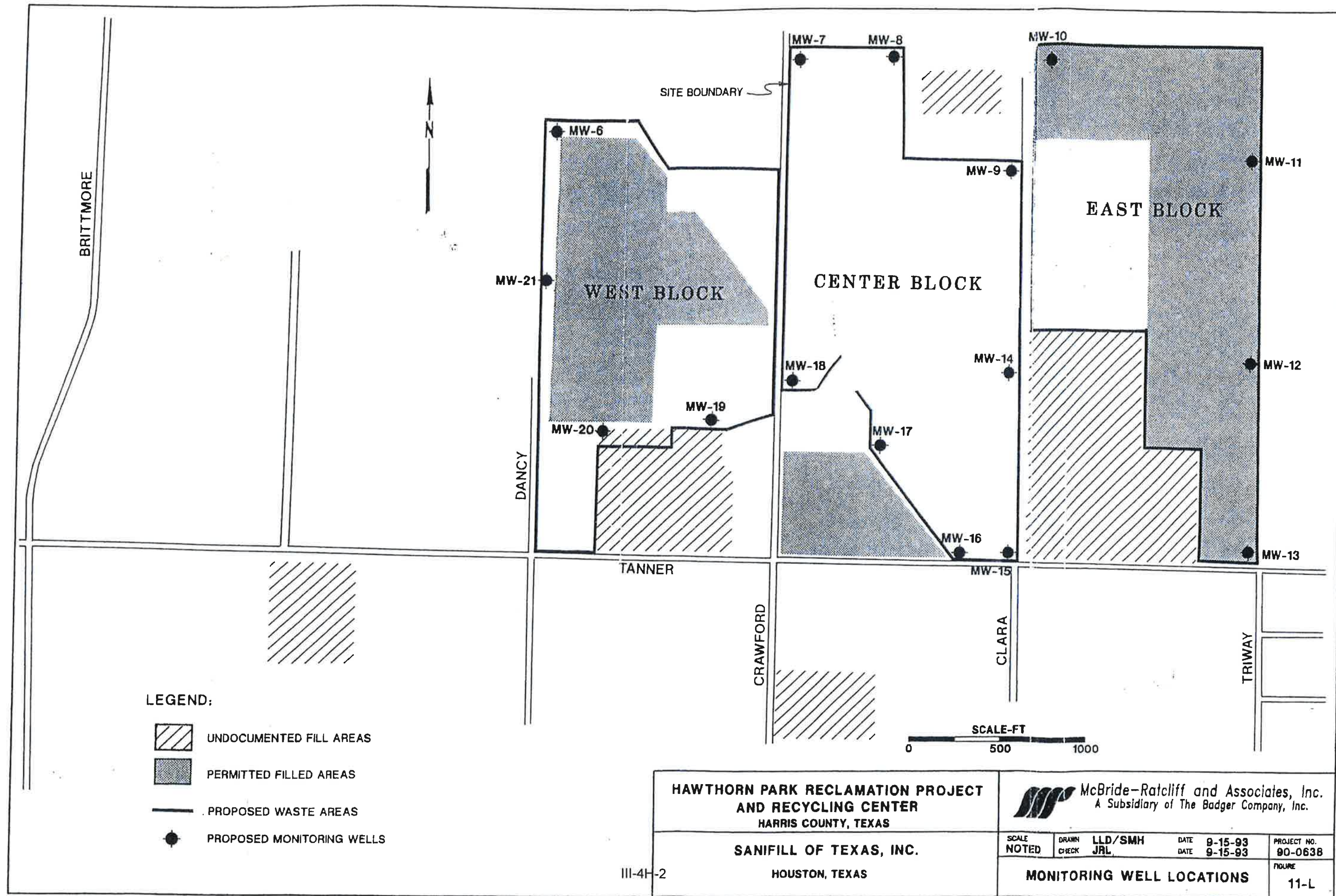
SANIFILL OF TEXAS, INC.
HOUSTON, TEXAS

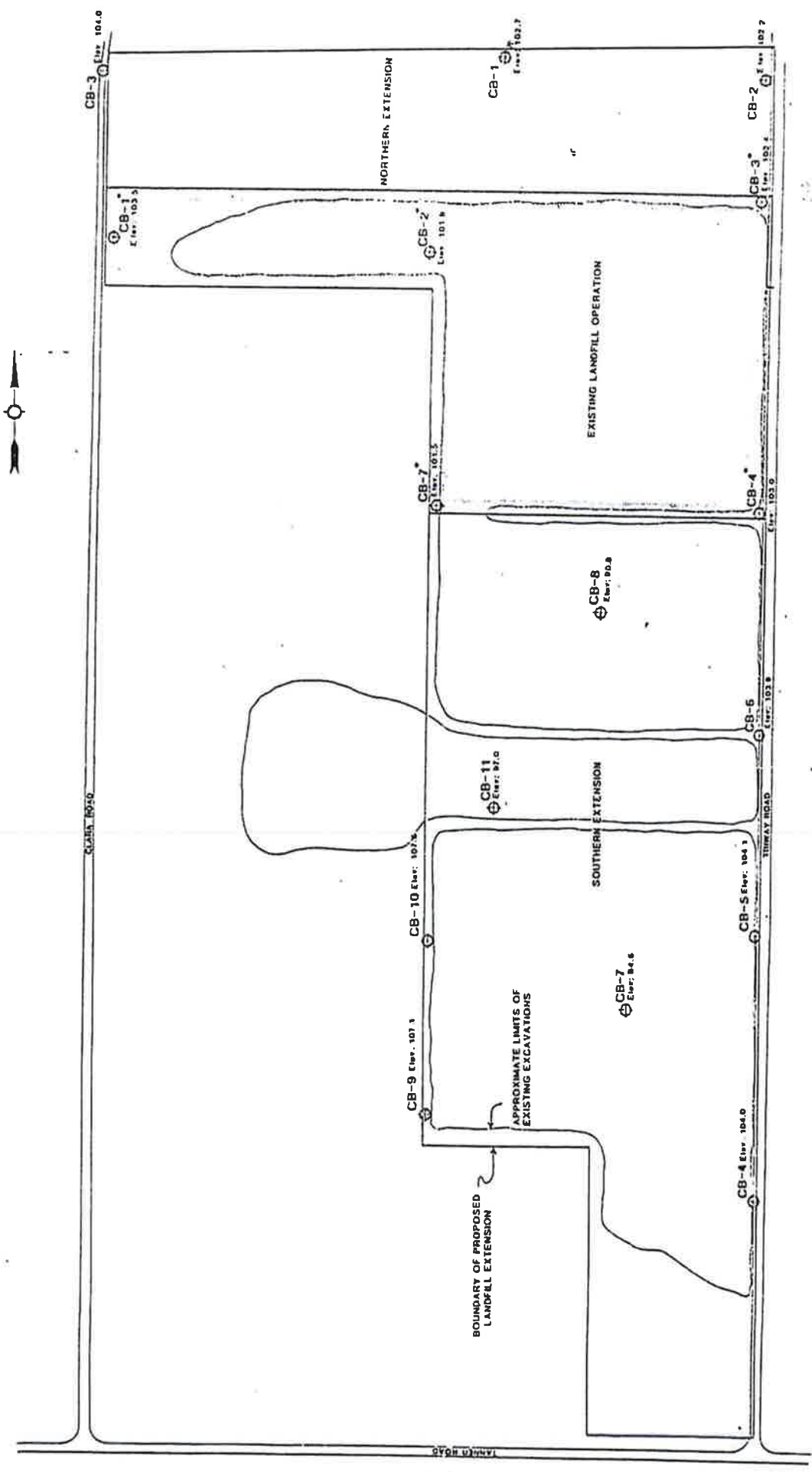
McBride-Ratcliff and Associates, Inc.
A Subsidiary of The Badger Company, Inc.

SCALE NOTED	DRAWN MLC/JRR CHECK JRL	DATE 8-14-93 DATE 8-14-93	FILE NO. 90-0638
----------------	----------------------------	------------------------------	---------------------

VICINITY BORING LOCATIONS

FIGURE
11B





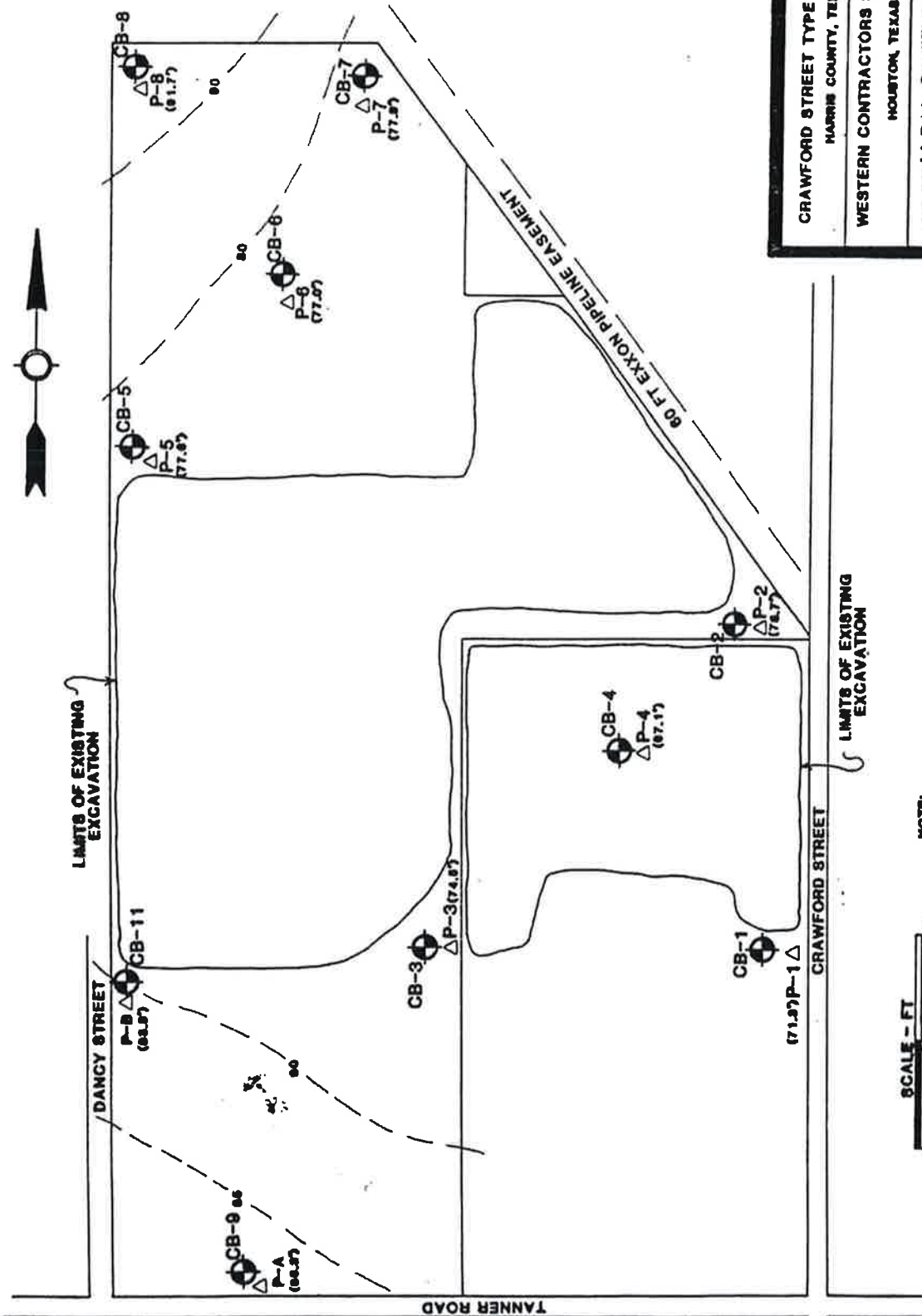
* BORINGS DRILLED FOR ORIGINAL SOILS REPORT
FOR PERMIT APPLICATION NO. 144B

TYPE IV LANDFILL
PERMIT APPLICATION NO. 144B-A
 HANCOCK COUNTY, GEORGIA
BSI CONSTRUCTION SERVICE S. INC.

McBride Earthfill and Associates, Inc.
 CONSULTING ENGINEERS
 1000 N. W. 10th St.
 Fort Lauderdale, FL 33304
 PHONE: (305) 555-1234
 FAX: (305) 555-1235

DATE: 10/1/83
 DRAWN BY: J. B. B. (JBB)
 CHECKED BY: J. B. B. (JBB)
 APPROVED BY: J. B. B. (JBB)

PLAN OF BORINGS
 1



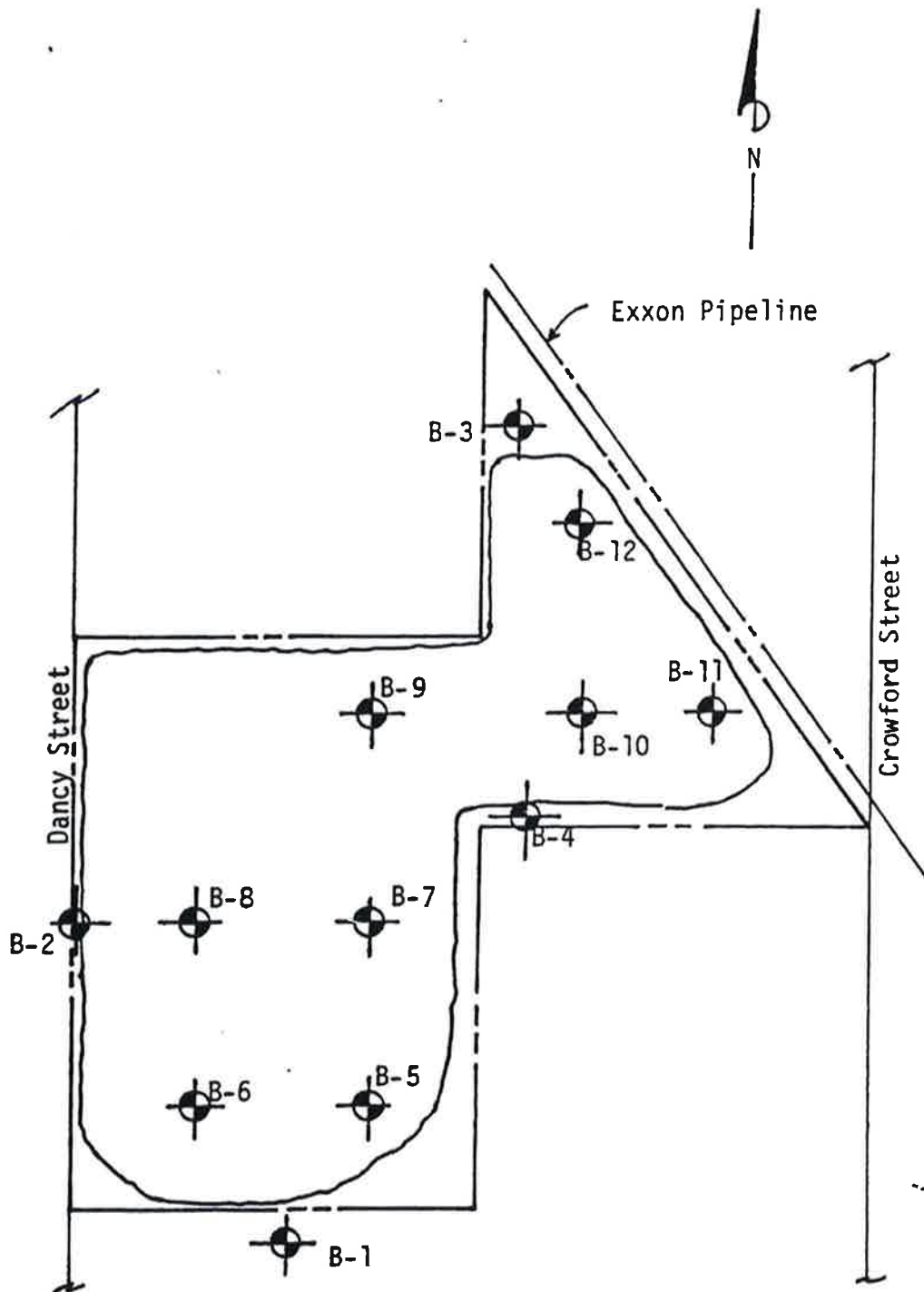
CRAWFORD STREET TYPE IV LANDFILL
HARRIS COUNTY, TEXAS

WESTERN CONTRACTORS SERVICES, INC.
HOUSTON, TEXAS

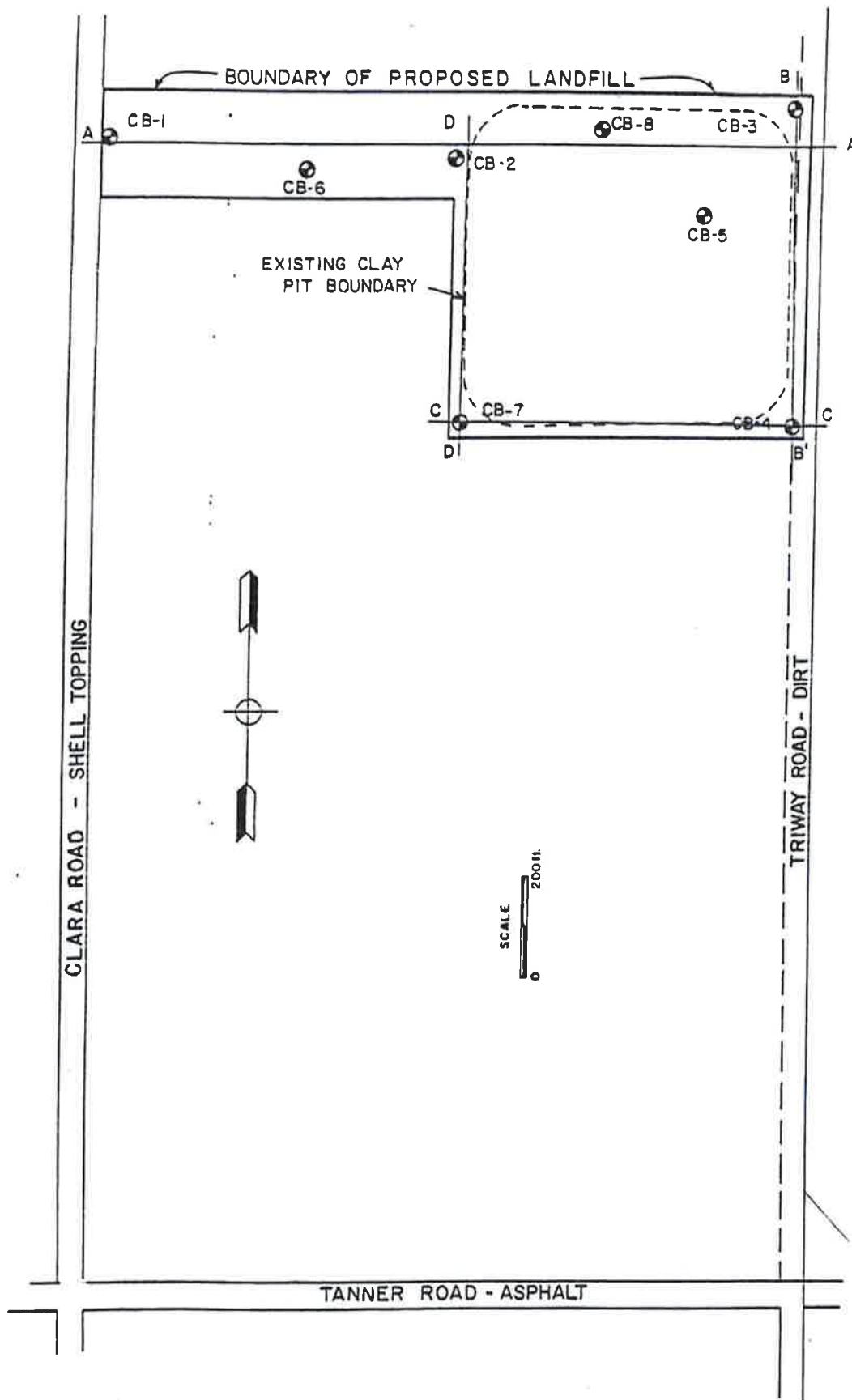
McBride-Ratcliff and Associates, Inc.
Geotechnical Consulting
Houston, Texas

SCALE	MAXIMUM	DATE	PI NO.
NOTED	CONTRACT	8-20-88	88-180
SHALLOW GROUNDWATER ELEVATIONS			8

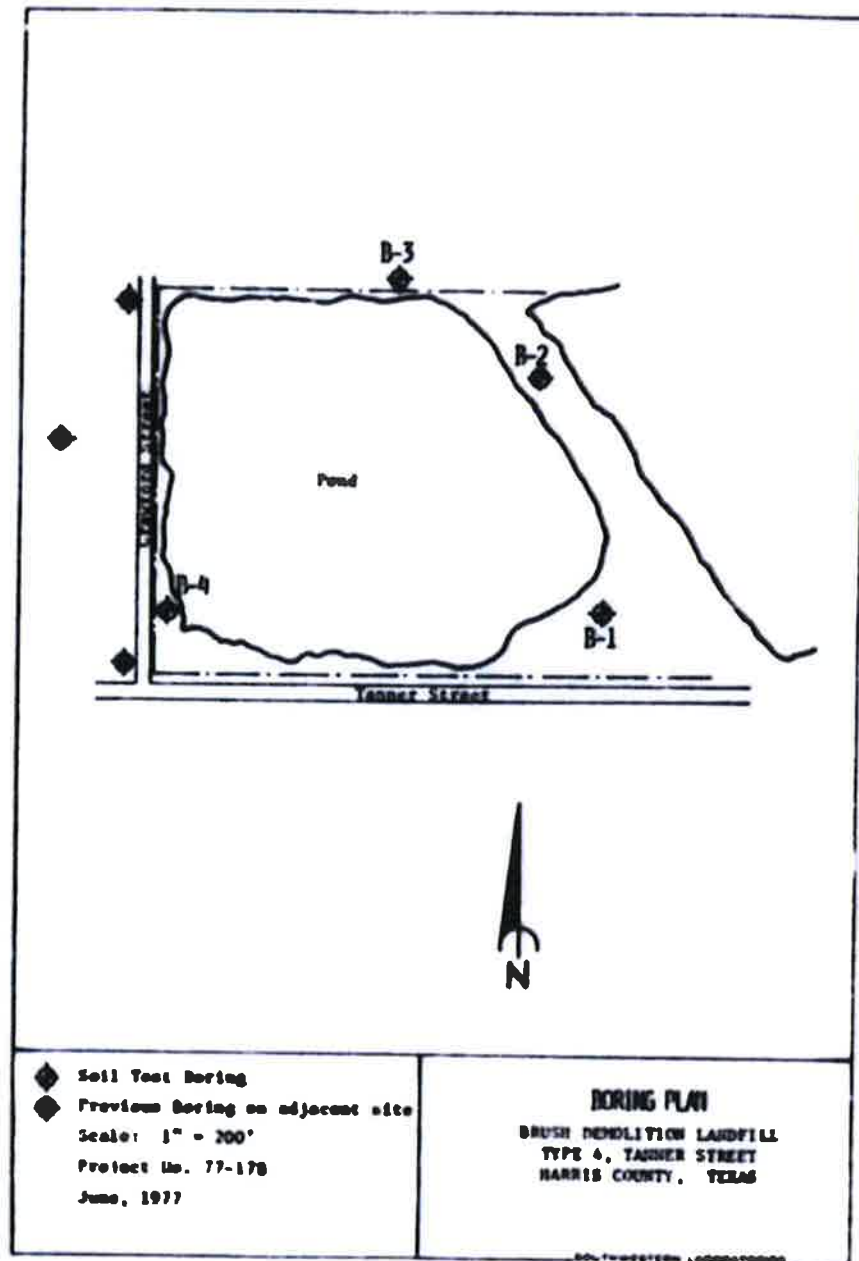
NOTE: SHALLOW GROUNDWATER ELEVATIONS ARE BASED ON READINGS MADE BY FEBRUARY 14, 1984.



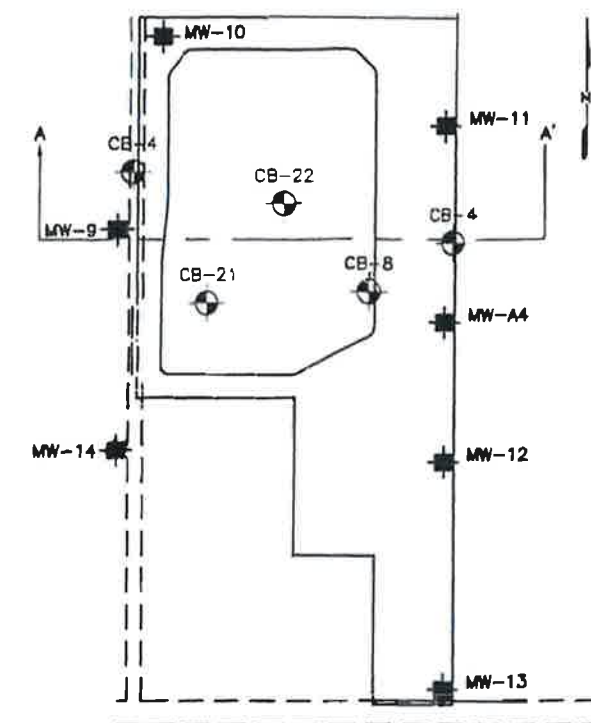
Boring Plan
November 1982







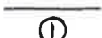
TYPE IV SANITARY LANDFILL APPLICATION HOUSTON, TEXAS B.S.I. CONSTRUCTION SERVICES, INC. HOUSTON, TEXAS		McBride-Ratcliff and Associates, Inc. Geotechnical Consulting Houston, Texas PREPARED BY: G.S. RATCLIFF DATE: 2-26-88 PROJECT NO.: 88-269 SHEET NO.: 1	
---	--	---	--



GEOLOGIC CROSS SECTIONS



LEGEND:

- 
 CONSTRUCTED BERM/ACCESS ROAD AND
 RECONSTRUCTED BUFFER ZONE. WHERE
 APPLICABLE. (SEE SLQCP FOR DETAILS.)
- 
 OBSERVED STATIC GROUNDWATER LEVEL
- 
 FREE WATER ENCOUNTERED
- CB-21 CORE BORING
- MW-11 PROPOSED MONITORING WELL
- — — APPROX. GROUND SURFACE
 FROM AERIAL FLOWN - AUGUST 1992
- 
 ORIGINAL NATURAL GROUND SURFACE
- 
 SOIL LAYER DESIGNATION

SOIL TYPE

- | | |
|---|-------------|
|  | FILL |
|  | CLAY |
|  | SANDY CLAY |
|  | SILTY CLAY |
|  | SAND |
|  | CLAYEY SAND |
|  | SILTY SAND |
|  | SILT |
|  | CLAYEY SILT |
|  | SANDY SILT |

NOTES:

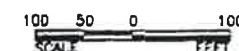
1. SOIL BORINGS ARE PROJECTED TO CROSS-SECTION. ACTUAL BORING LOCATIONS ARE SHOWN ON INSET MAP AND ATTACHMENT 11-A. ACTUAL BORING LOGS ARE ALSO IN ATTACHMENT 11.
2. SUBSOIL PROFILE INTERPOLATED BETWEEN BORINGS. ACTUAL CONDITIONS MAY VARY FROM THOSE ILLUSTRATED.
3. VERTICAL EXAGGERATION FACTOR = 10
4. NOT FOR CONSTRUCTION. FOR PERMITTING USE ONLY.
5. CROSS-SECTION LOCATION ALSO SHOWN ON ATTACHMENT 6-A1.
6. MONITORING WELL DETAILS ARE SHOWN ON ATTACHMENT 7-C1 AND 7-C2.
7. METHANE PROBES AND VENTS ARE SHOWN ON ATTACHMENT 9-A1, 9-B, AND 9-C.

REF:
BASE MAP FOR THIS DRAWING FROM DRAWING
PREPARED BY MCBRIDE-RATCLIFF AND
ASSOCIATES, INC. SEALED ON 08/26/1993 BY
PAUL A. PABOR.

III-4H-8



THIS DOCUMENT WAS SEALED
ON 6/16/2008 FOR
RECEIVING OFFICE IN



REVISED BY GOLDER ASSOCIATES INC.

Date	Revision/Description
4/06	EAST BLOCK WASTE FOR BALL
2/2008	RUNOFF CONTROL BERM
6/2008	GENERAL

Drawn By	Checked By	Project No.	Orig. D
JMT	PRM	025108-3	3/200

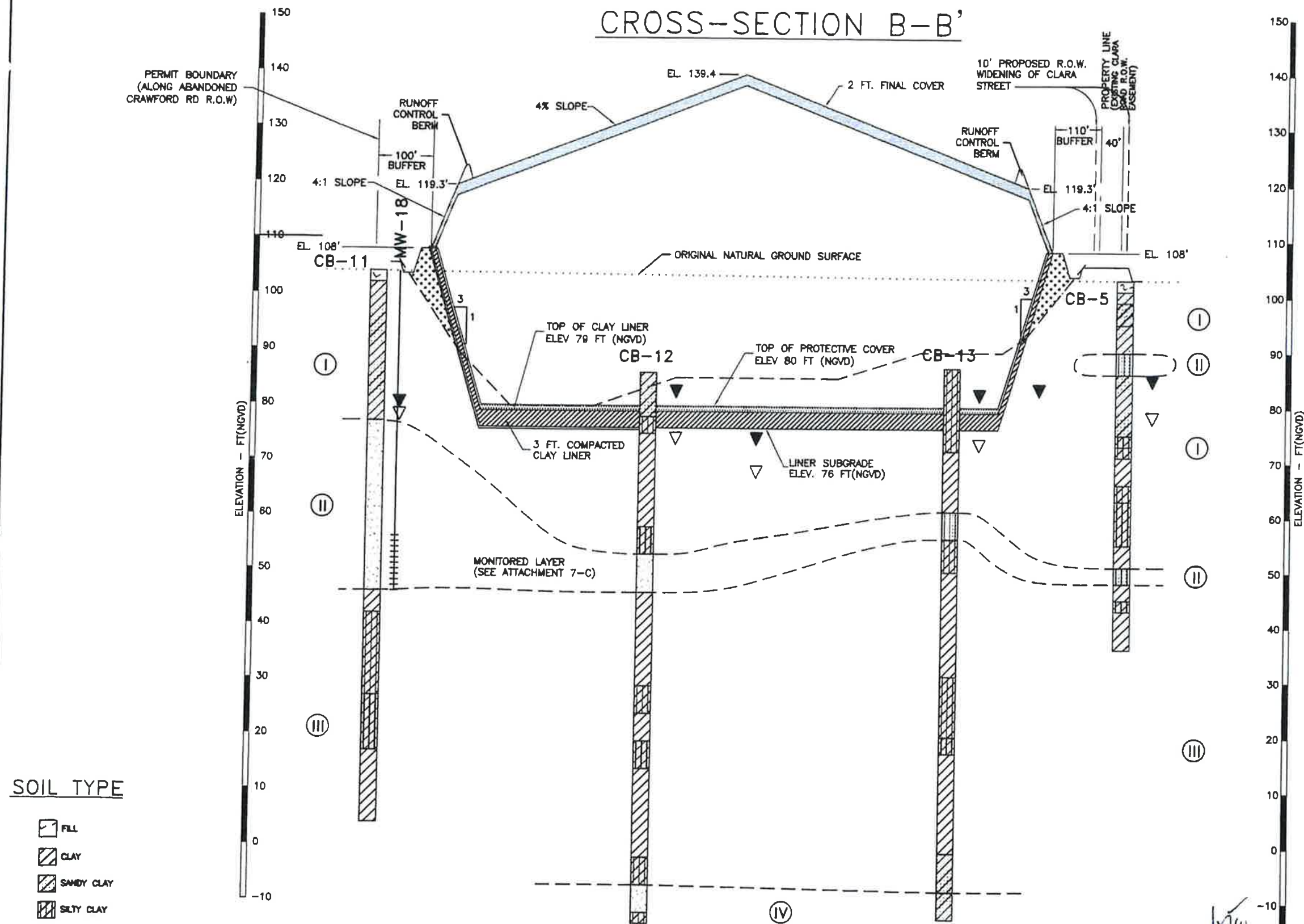
TYPICAL FILL
CROSS-SECTION A-A'
FOR EAST BLOCK

HAWTHORN PARK RECLAMATION PROJECT
TCEQ PERMIT NO. MSW 2185
USA WASTE OF TEXAS LANDFILLS, INC.

Metroplex

16423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.3501
Facsimile: 281.444.3371

Attachment No.	
-------------------	--



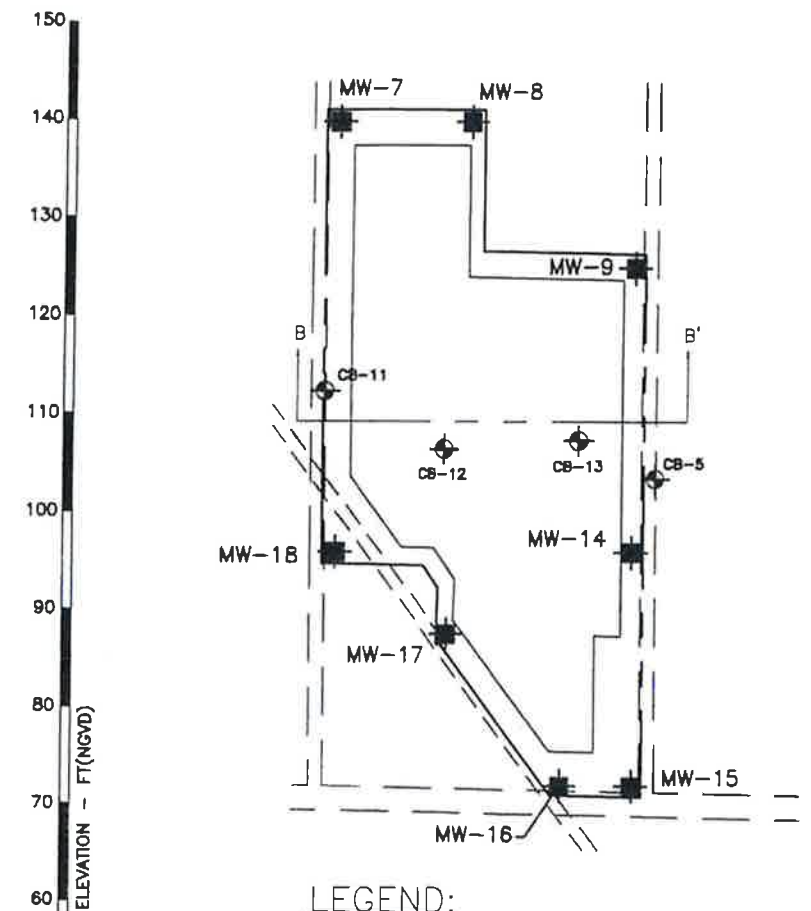
- NOTES:
1. SOIL BORINGS ARE PROJECTED TO CROSS-SECTION. ACTUAL BORING LOCATIONS ARE SHOWN ON INSERT MAP AND ATTACHMENT 11-A. ACTUAL BORING LOGS ARE ALSO LOCATED IN ATTACHMENT 11.
 2. SUBSOIL PROFILE INTERPOLATED BETWEEN BORINGS. ACTUAL CONDITIONS MAY VARY FROM THOSE ILLUSTRATED.
 3. VERTICAL EXAGGERATION = 10
 4. NOT FOR CONSTRUCTION. FOR PERMITTING USE ONLY.
 5. CROSS-SECTION LOCATION ALSO SHOWN ON ATTACHMENT 6-A2.
 6. MONITORING WELL DETAILS ARE SHOWN ON ATTACHMENT 7-C1 AND 7-C2.
 7. METHANE PROBES AND VENTS ARE SHOWN ON ATTACHMENT 9-A2, 9-B, AND 9-C.

III-4H-9




REF:
BASE MAP FOR THIS DRAWING FROM DRAWING
PREPARED BY MCBRIDE-RATCLIFF AND
ASSOCIATES, INC. SEALED ON 08/26/1993 BY
PAUL A. PAROR



THIS DOCUMENT WAS SEALED
ON 6/16/2008 FOR
REMITTING PURPOSES ONLY



LEGEND:

- 
 CONSTRUCTED BERM/ACCESS ROAD AND
 RECONSTRUCTED BUFFER ZONE. WHERE
 APPLICABLE. (SEE SLQCP FOR DETAILS.)
- 
 OBSERVED STATIC GROUNDWATER LEVEL
- 
 FREE WATER ENCOUNTERED
- CB-21** CORE BORING
- MW-18** PROPOSED MONITORING WELL LOCATION
- — — APPROX. GROUND SURFACE
 FROM AERIAL FLOWN - JULY 1990
- ORIGINAL NATURAL GROUND SURFACE
- — —
 (IV) SOIL LAYER DESIGNATION

REVISED BY GOLDER ASSOCIATES INC.

Date	Revision/Description		
4/2008	GENERAL		
6/2008	GENERAL		
Drawn By	Checked By	Project No.	Eng. Date
JMT	PRM	0225100-3	2/2006

TYPICAL FILL
CROSS-SECTION B-B'
FOR CENTER BLOCK

HAWTHORN PARK RECLAMATION PROJECT
TCEQ PERMIT NO. MSW 2185
USA WASTE OF TEXAS LANDFILLS, INC.

Metroplex[®]
Core

14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.3376

Attachment
No.
7-A2 1

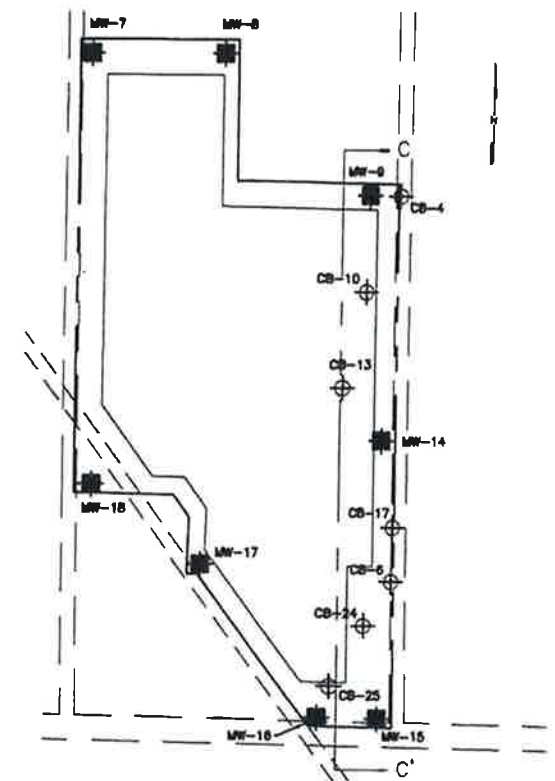
-000164709-1-AZ L U W U , b / 1 / 2008 B 42 46 AM, KONICA MINOLTA C352 _C30r -5, 11, 17, 1200







1. SOIL BORINGS ARE PROJECTED TO CROSS-SECTION. ACTUAL BORING LOCATIONS ARE SHOWN ON ATTACHMENT 11-A.
2. SUBSOIL PROFILE INTERPOLATED BETWEEN BORINGS. ACTUAL CONDITIONS MAY VARY FROM THOSE ILLUSTRATED.
3. VERTICAL EXAGGERATION = 10
4. NOT FOR CONSTRUCTION.
FOR PERMITTING USE ONLY.

REF:
BASE MAP FOR THIS DRAWING FROM DRAWING
PREPARED BY McBRIDE-RATCLIFF AND
ASSOCIATES, INC. SEALED ON 08/26/1993 BY
PAUL A. PABOR.

THIS DOCUMENT WAS SEALED
ON 6/16/2008 FOR



LEGEND:

- 
 CONSTRUCTED BERM/ACCESS ROAD AND
 RECONSTRUCTED BUFFER ZONE. WHERE
 APPLICABLE. (SEE SLQCP FOR DETAILS.)
- 
 OBSERVED STATIC GROUNDWATER LEVEL
- 
 FREE WATER ENCOUNTERED
- CB-24 CORE BORING
- - - APPROX. GROUND SURFACE
 FROM AERIAL FLOWN - JULY 1990
- 
 SOIL LAYER DESIGNATION
- ORIGINAL NATURAL GROUND SURFACE
- MW-14 PROPOSED MONITORING WELL

REVISÉ BY GOLDER ASSOCIATES INC.

Date	Revision/Description		
12/07	GENERAL		
5/2008	GENERAL		
Drawn by	Checked by	Project No.	Doc. Date
JMT	PPM	025106-3	2/2008

TYPICAL FILL
CROSS-SECTION C-C'
FOR CENTER BLOCK

HAWTHORN PARK RECLAMATION PROJECT
TCEQ PERMIT NO. MSW 2185
USA WASTE OF TEXAS LANDFILLS, INC.

Metroplex[®]

14423 Cornerstone Village Drive
Houston, Texas 77014
Telephone: 281.440.5503
Facsimile: 281.444.5576

Attachment
No.

CROSS-SECTION D-D'

EXISTING PERMIT 1643 BOUNDARIES

EXISTING FINAL COVER

VARIES FROM 3% TO 12%

EASEMENT

PEAK EL. 132

EL. 126

PROPOSED FINAL COVER

80' BUFFER

MW-19

PERIMETER DITCH

CB-2

EL. 108

CB-11

EXISTING COVERED WASTE SLOPE

PROPOSED UPPER SIDEWALL LINER

APPROXIMATE EXISTING EXCAVATION

EXISTING SLURRY TRENCH CAP

EXISTING WASTE

SOIL MAY BE EXCAVATED TO ALLOWABLE EXCAVATION GRADE

EXISTING SLURRY TRENCH

PREVIOUSLY EVALUATED IN SITU BOTTOM LINER

40' NGVD

IN SITU BOTTOM LINER TO BE EVALUATED

EXISTING SLURRY TRENCH

CB-3

EL. 108

ELEVATION - FT(NGVD)

SOIL TYPE:

- FILL
- SANDY CLAY (SCL)
- SAND (SP)
- SILTY CLAY (CL)
- CLAY (CH)
- CLAYEY SAND (SC)
- CLAYEY SILT (ML)
- SILTY SAND (SM)

NOTES:

- SOIL BORINGS ARE PROJECTED TO CROSS-SECTION. ACTUAL BORING LOCATIONS ARE SHOWN ON INSET MAP AND ATTACHMENT 11-A. ACTUAL BORING LOGS ARE ALSO IN ATTACHMENT 11.
- SUBSOIL PROFILE INTERPOLATED BETWEEN BORINGS. ACTUAL CONDITIONS MAY VARY FROM THOSE ILLUSTRATED.
- VERTICAL EXAGGERATION FACTOR = 10
- NOT FOR CONSTRUCTION. FOR PERMITTING USE ONLY.
- CROSS-SECTION LOCATION ALSO SHOWN ON ATTACHMENT 6-A3.
- MONITORING WELL DETAILS ARE SHOWN ON ATTACHMENT 7-C1 AND 7-C2.
- METHANE PROBES AND VENTS ARE SHOWN ON ATTACHMENT 9-A3, 9-B, AND 9-C.

LEGEND:

- CONSTRUCTED BERM/ACCESS ROAD AND RECONSTRUCTED BUFFER ZONE. WHERE APPLICABLE. (SEE ATTACHMENT 12 FOR CONSTRUCTION DETAILS.)
- CB-3 CORE BORING
- MW-19 PROPOSED MONITORING WELL
- ORIGINAL NATURAL GROUND SURFACE
- ① SOIL LAYER DESIGNATION

STATE OF TEXAS

PAUL A. PABOR

58342

REGISTERED PROFESSIONAL ENGINEER

11/11/93

HAWTHORN PARK RECLAMATION PROJECT AND RECYCLING CENTER

HARRIS COUNTY, TEXAS

SANIFILL OF TEXAS, INC.

HOUSTON, TEXAS

McBride-Ratcliff and Associates, Inc.

A Subsidiary of The Badger Company, Inc.

SCALE

NOTED

DRAWN

JRR

CHECK

TWJ/PAP

DATE

11-9-93

DATE

11-9-93

PROJECT NO.

90-0638

FIGURE

7-A3

TYPICAL FILL CROSS-SECTION D-D' FOR WEST BLOCK

1. SOIL BORINGS ARE PROJECTED TO CROSS-SECTION. ACTUAL BORING LOCATIONS ARE SHOWN ON INSET MAP AND ATTACHMENT 11-A. ACTUAL BORING LOGS ARE ALSO IN ATTACHMENT 11.
2. SUBSOIL PROFILE INTERPOLATED BETWEEN BORINGS. ACTUAL CONDITIONS MAY VARY FROM THOSE ILLUSTRATED.
3. VERTICAL EXAGGERATION FACTOR = 10
4. NOT FOR CONSTRUCTION. FOR PERMITTING USE ONLY.
5. CROSS-SECTION LOCATION ALSO SHOWN ON ATTACHMENT 6-A3.
6. MONITORING WELL DETAILS ARE SHOWN ON ATTACHMENT 7-C1 AND 7-C2.
7. METHANE PROBES AND VENTS ARE SHOWN ON ATTACHMENT 9-A3, 9-B, AND 9-C.

A circular notary seal for Paul A. Pabor, a Notary Public in the State of Texas. The seal features a five-pointed star in the center. The text "STATE OF TEXAS" is arched across the top, and "NOTARY PUBLIC" is arched across the bottom. In the center, below the star, is the name "PAUL A. PABOR" and the commission number "58342". Below the number, it says "COMMISSION EXPIRES 11/11/93". A large, stylized signature, likely "Paul A. Pabor", is written across the seal.

HARRIS COUNTY, TEXAS

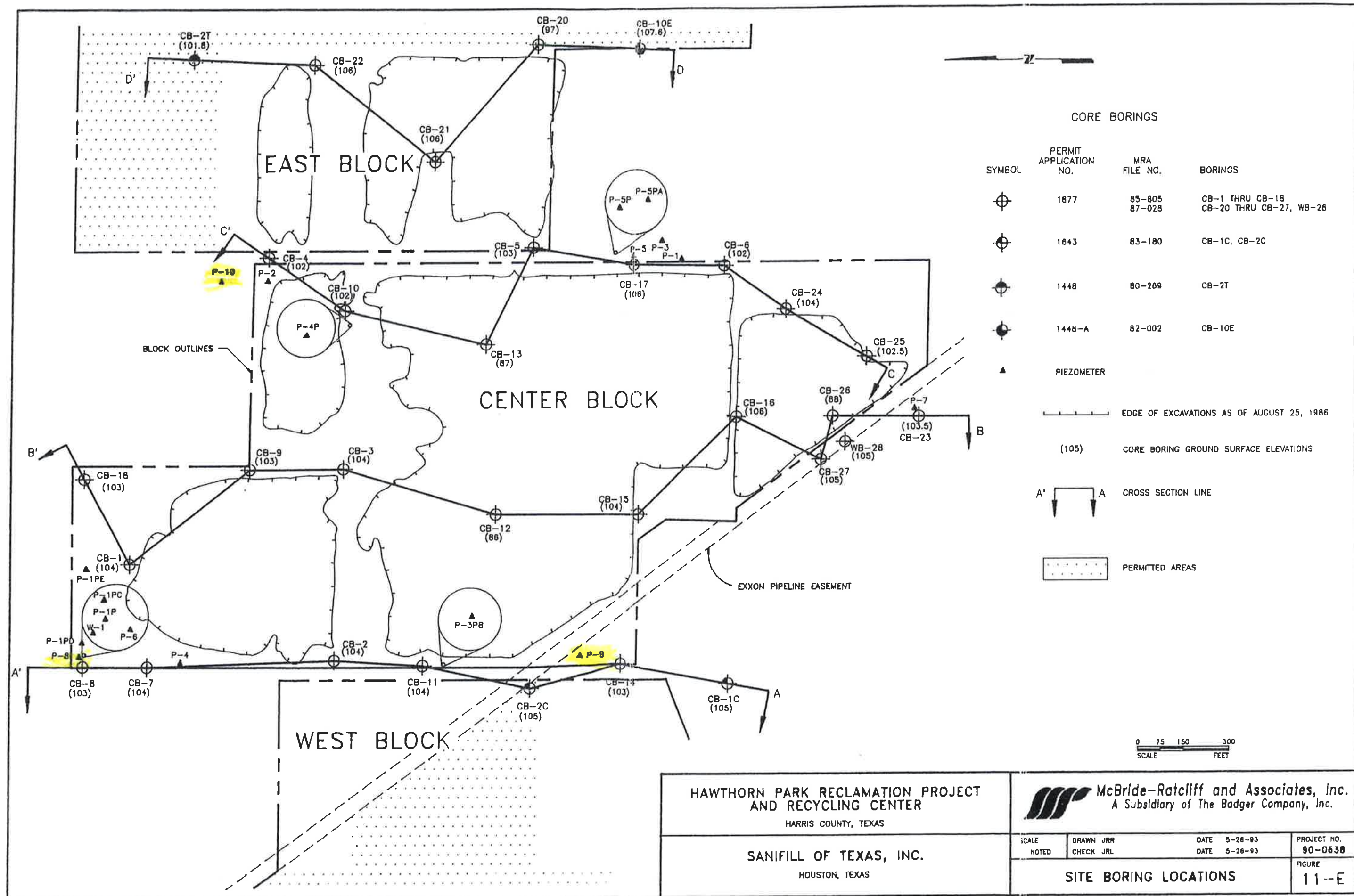
HOUSTON, TEXAS



McBride-Ratcliff and Associates, Inc.
A Subsidiary of The Badger Company, Inc.

TYPICAL FILL CROSS-SECTION D-D'
FOR WEST BLOCK

FIGURE
7-A3



CORE BORINGS

SYMBOL	PERMIT APPLICATION NO.	MRA FILE NO.	BORINGS
	1877	85-805 87-028	CB-1 THRU CB-18 CB-20 THRU CB-27, WB-28
	1643	83-180	CB-1C, CB-2C
	1448	80-269	CB-2T
	1448-A	82-002	CB-10E
			PIEZOMETER
			EDGE OF EXCAVATIONS AS OF AUGUST 25, 1986
			(105) CORE BORING GROUND SURFACE ELEVATIONS
			CROSS SECTION LINE
			PERMITTED AREAS

0 75 150 300
SCALE FEET

HAWTHORN PARK RECLAMATION PROJECT
AND RECYCLING CENTER
HARRIS COUNTY, TEXAS

SANIFILL OF TEXAS, INC.
HOUSTON, TEXAS

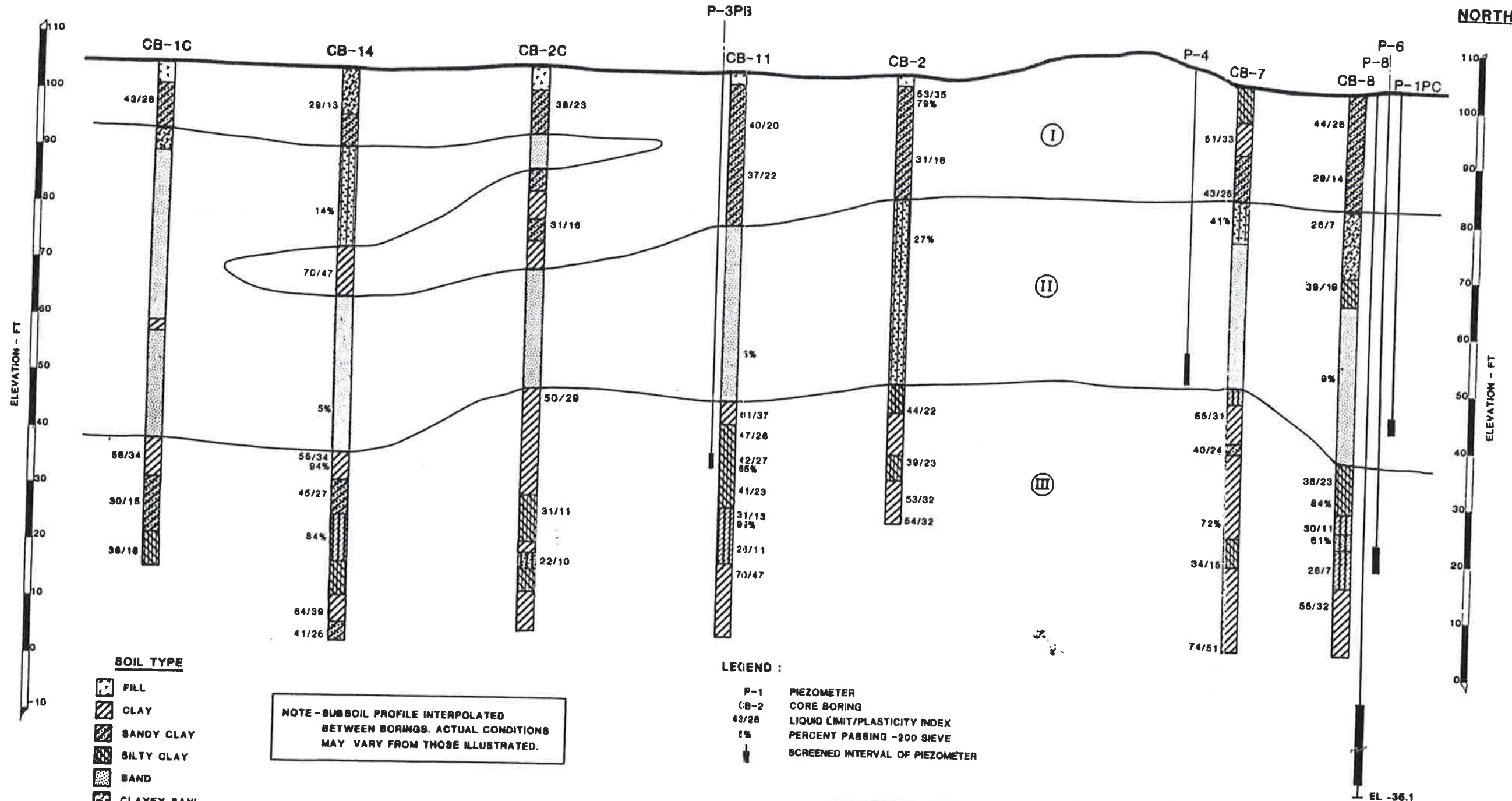
 **McBride-Ratcliff and Associates, Inc.**
A Subsidiary of The Badger Company, Inc.

SCALE NOTED	DRAWN JRR CHECK JRL	DATE 5-28-93 DATE 5-28-93	PROJECT NO. 90-0638
SITE BORING LOCATIONS			FIGURE 11-E

SECTION A-A'

SOUTH

NORTH



HAWTHORN PARK RECLAMATION PROJECT
AND RECYCLING CENTER
HARRIS COUNTY, TEXAS

SANIFILL OF TEXAS, INC.
HOUSTON, TEXAS

McBride-Ratcliff and Associates, Inc.
A Subsidiary of The Badger Company, Inc.

SCALE NOTED	MADE CHECK	KD/LLD JRL	DATE 5-4-93 5-4-93	PLN NO 90-0638
----------------	---------------	---------------	--------------------------	-------------------

SOIL PROFILE A-A'

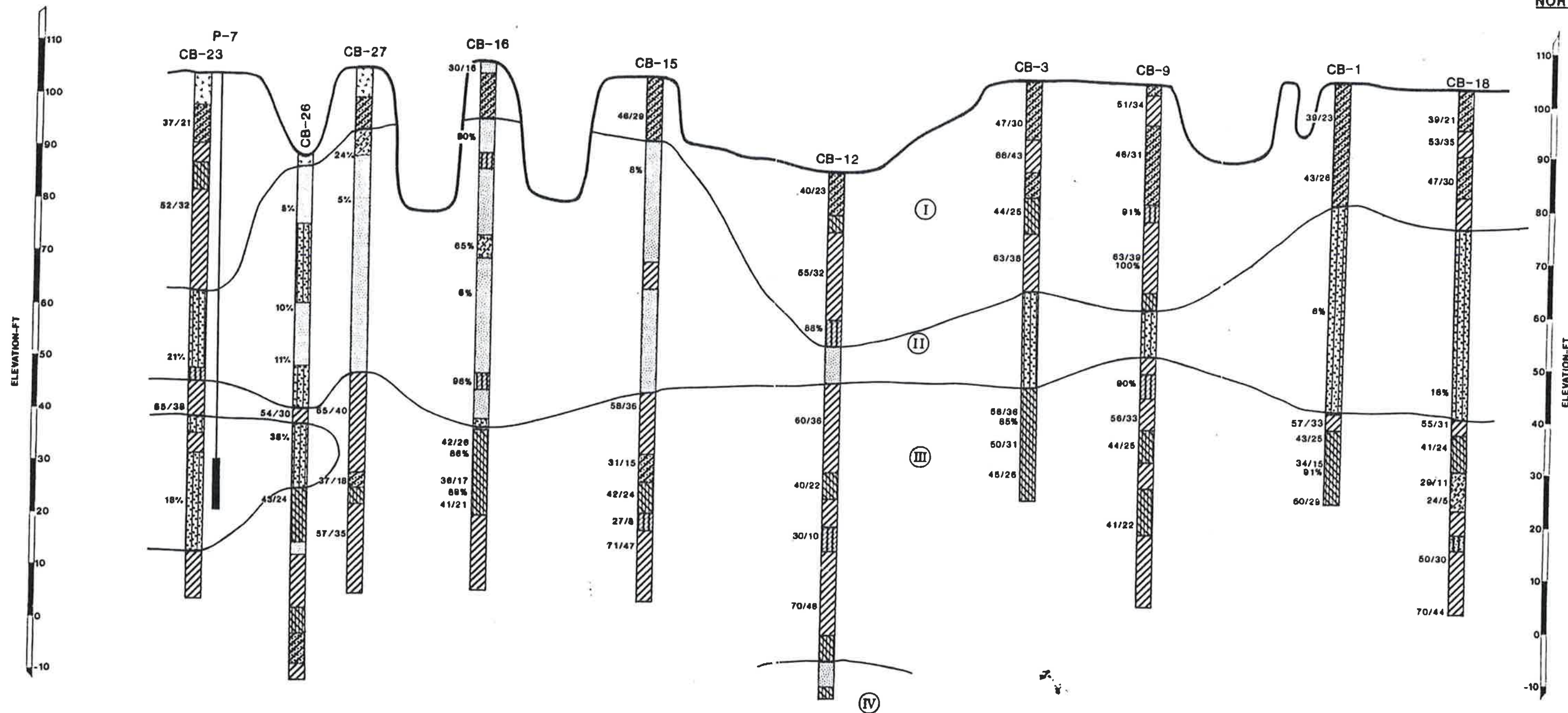
11-F

III-4H-13

SECTION B-B'

SOUTH

NORTH



HAWTHORN PARK RECLAMATION PROJECT
AND RECYCLING CENTER
HARRIS COUNTY, TEXAS

SANIFILL OF TEXAS, INC.
HOUSTON, TEXAS

McBride-Ratcliff and Associates, Inc.
A Subsidiary of The Badger Company, Inc.

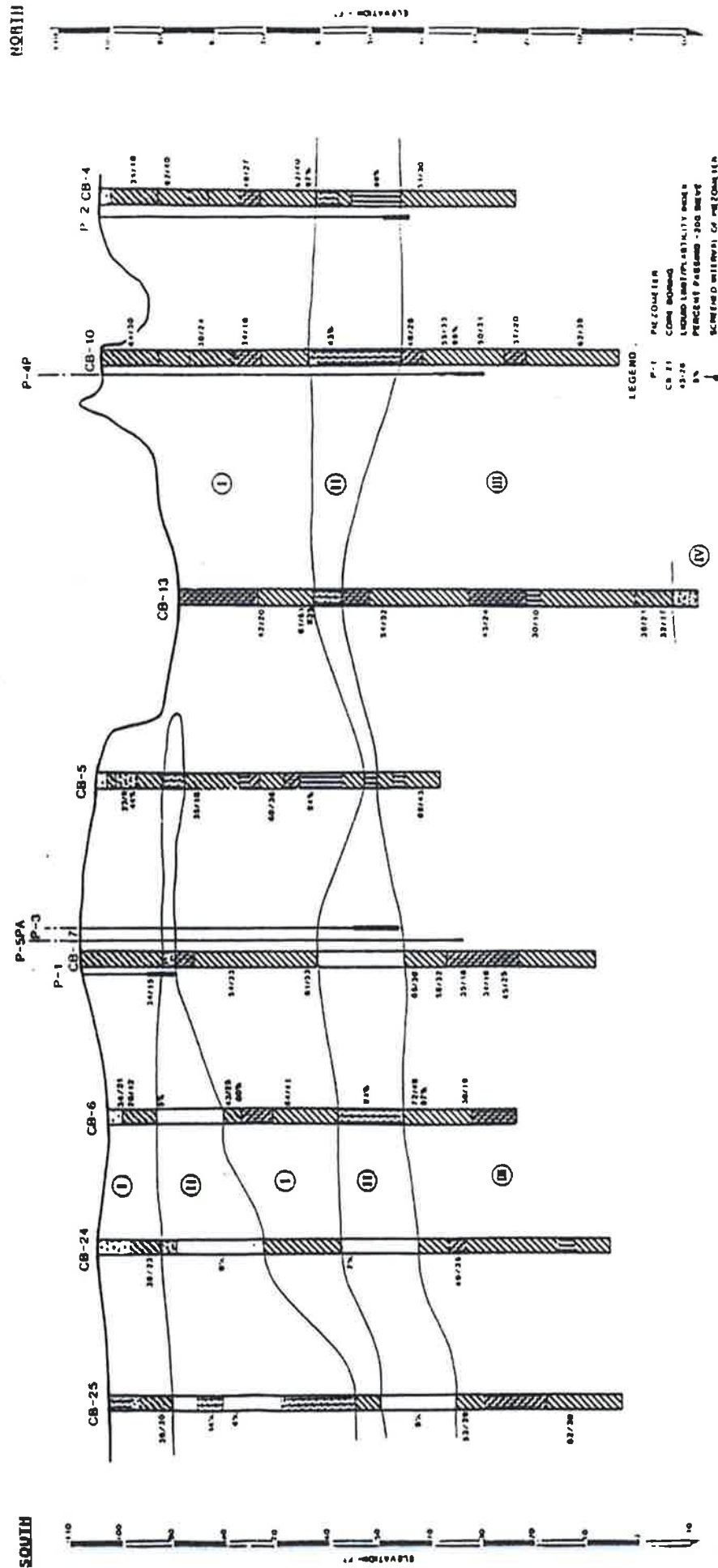
SCALE NOTED	MADE CHECK	KD/LLD JAL	DATE 5-4-93	FILE NO 90-0638
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SOIL PROFILE B-B'

11-G

III-4H-14

SECTION C-C'



NOTE - SURFACE PROFILE INTERPOLATED BETWEEN BORINGS. ACTUAL CONDITIONS MAY VARY FROM THOSE ILLUSTRATED.

- SOIL TYPE
- PEZOMELT
- CLAY
- SANDY CLAY
- CLAY
- SANDY CLAY
- SAND

HAWTHORN PARK RECLAMATION PROJECT AND RECYCLING CENTER

HOUSTON COUNTY, TEXAS

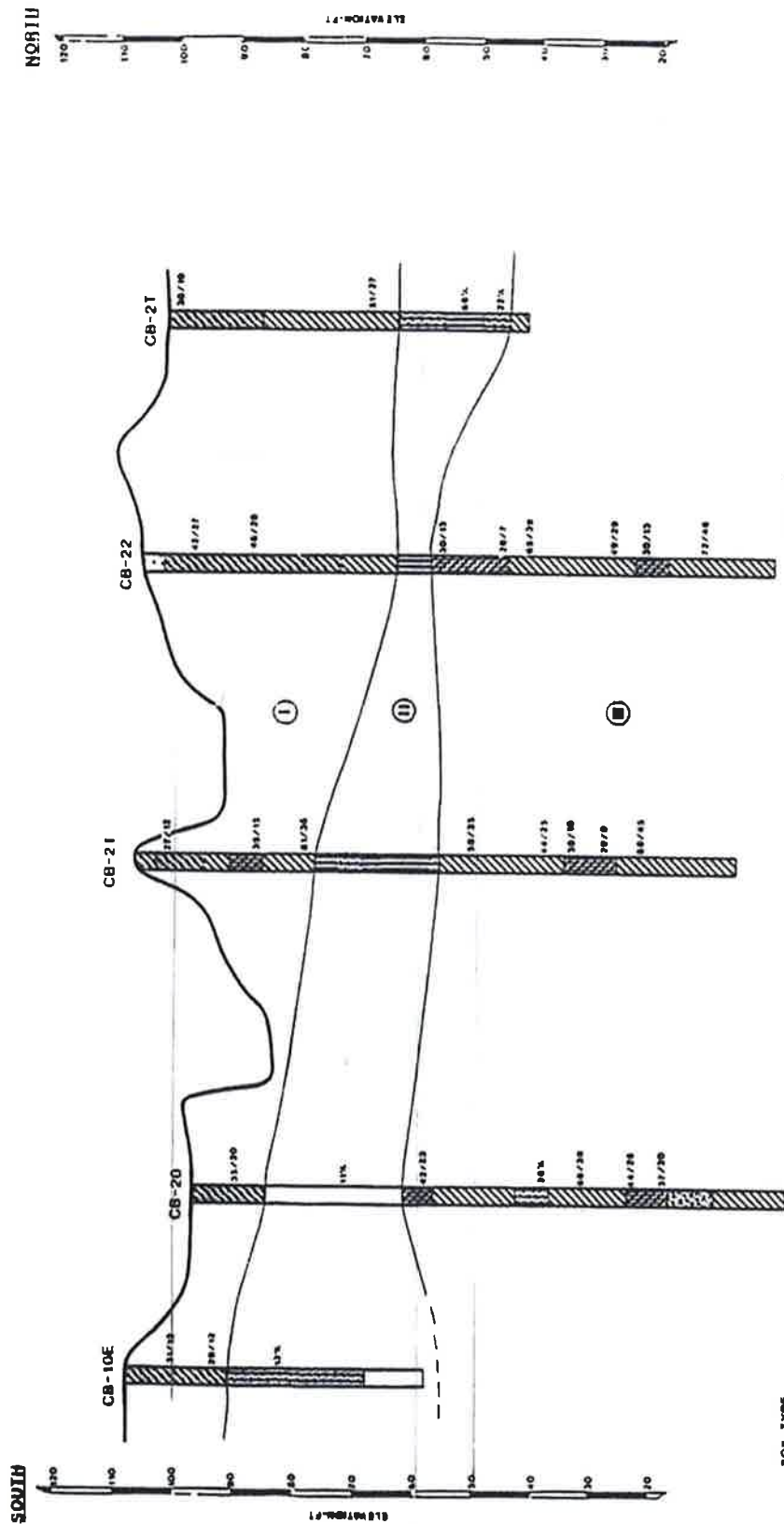
SANFILL OF TEXAS, INC.
HOUSTON, TEXAS

McBride-Raciliff and Associates, Inc.
A Subsidiary of The Bodeger Company, Inc.

Scale	1" = 10'
North	3 4 5
Sheet	11-11

SOIL PROFILE C-C'

SECTION D-D



- SOIL TYPE**
- ☒ FEL
 - ☒ CLAY
 - ☒ SANDY CLAY
 - ☒ SILTY CLAY
 - ☒ SAND
 - ☒ CLAYEY SAND
 - ☒ SILTY SAND
 - ☒ SILT
 - ☒ CLAYEY SILT
 - ☒ SANDY SILT

NOTE - SUBSOIL PROFILE INTERPOLATED
BETWEEN BORINGS. ACTUAL CONDITIONS
MAY VARY FROM THOSE ILLUSTRATED.

LEGEND

CB-21 Cont. 900mm
CB-22 42/28
5%
CB-2T Cont. 900mm
LEADER/LASER PLASTICITY INDEX
PERCENT PASSING .200 SIEVE

**HAWTHORN PARK RECLAMATION PROJECT
AND RECYCLING CENTER**

HARRIS COUNTY, TEXAS


SANFILL OF TEXAS, INC.

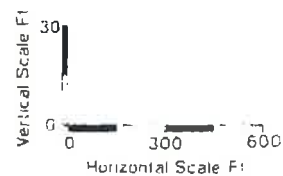
McBride-Ratcliff and Associates, Inc.
A Subsidiary of The Golder Company, Inc.

Scale	NOTED	Drawn	8/0/110	Sheet	5 of 5	11/08
Project	NOTED	Check	8/0	Date	5 of 5	8/0/08

SOIL LAYER

SOIL DESCRIPTION AND CLASSIFICATION

I		Medium-Hard CLAY (CH) SANDY CLAY (CL) & SILTY CLAY (CL)
II		Firm-Very Dense FINE SAND (SP), SILTY FINE SAND (SM), CLAYEY SAND (SC) SANDY SILT (ML) & CLAYEY SILT (ML)
III		Stiff-Hard CLAY (CH) SANDY CLAY (CL) & SILTY CLAY (CL)
IV		FINE SAND (SP) & SILTY FINE SAND (SM)
		PROPOSED WASTE AREAS



HAWTHORN PARK RECLAMATION PROJECT AND RECYCLING CENTER HARRIS COUNTY, TEXAS

SANIFILL OF TEXAS, INC.
HOUSTON, TEXAS

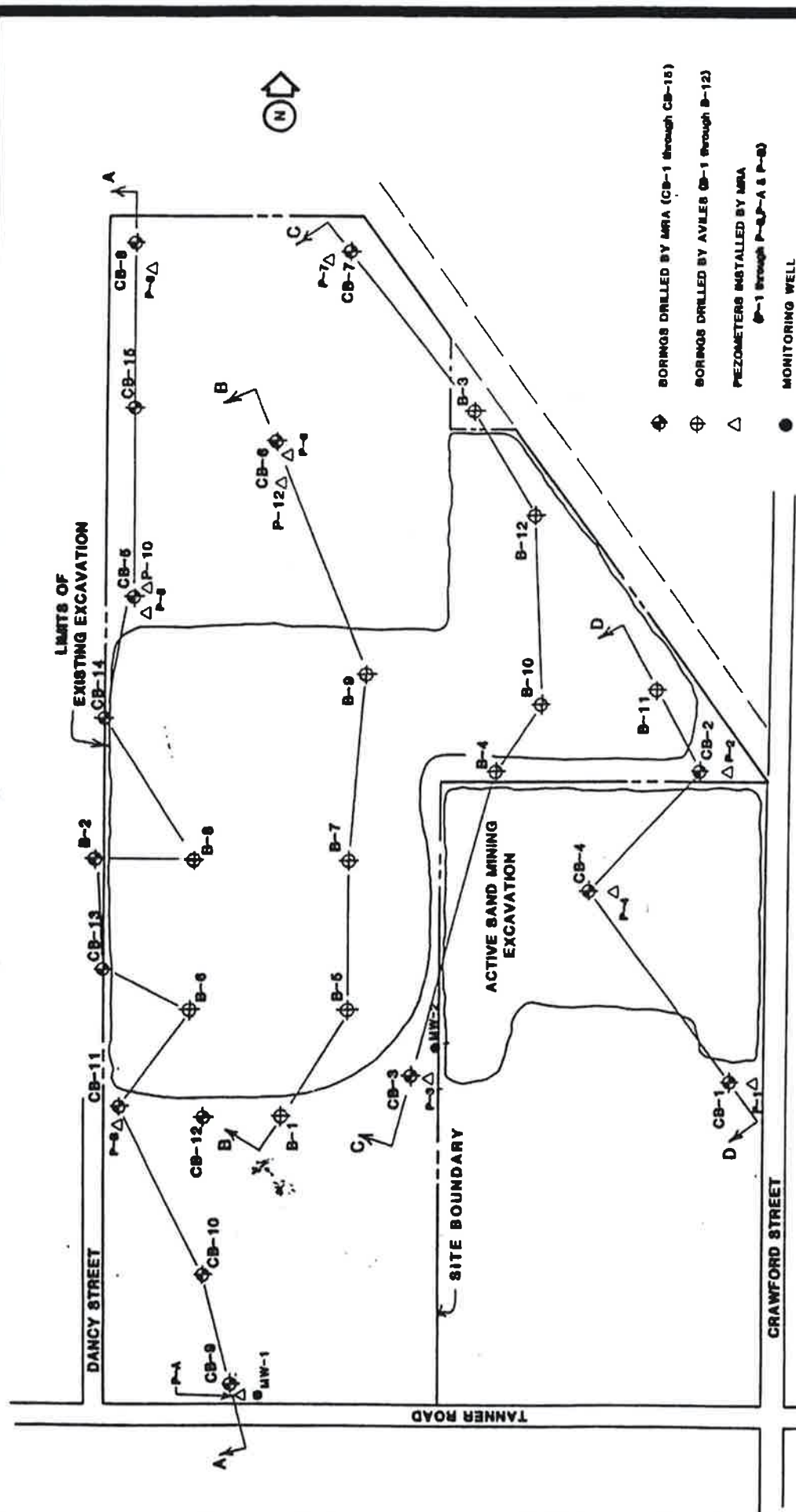


McBride-Ratcliff and Associates, Inc.
A Subsidiary of The Badger Company, Inc.

SCALE NOTED	MADE SMH/LLD CHECK JRL	DATE 9-13-93 DATE 9-13-93	FILE NO. 90-0638
----------------	---------------------------	------------------------------	---------------------

FENCE DIAGRAM

FIGURE
11-D



- ◆ BORINGS DRILLED BY MRA (CB-1 through CB-18)
- ⊕ BORINGS DRILLED BY AVLES CB-1 through B-12)
- △ PIEZOMETERS INSTALLED BY MRA (P-1 through P-10 & P-8)
- MONITORING WELL



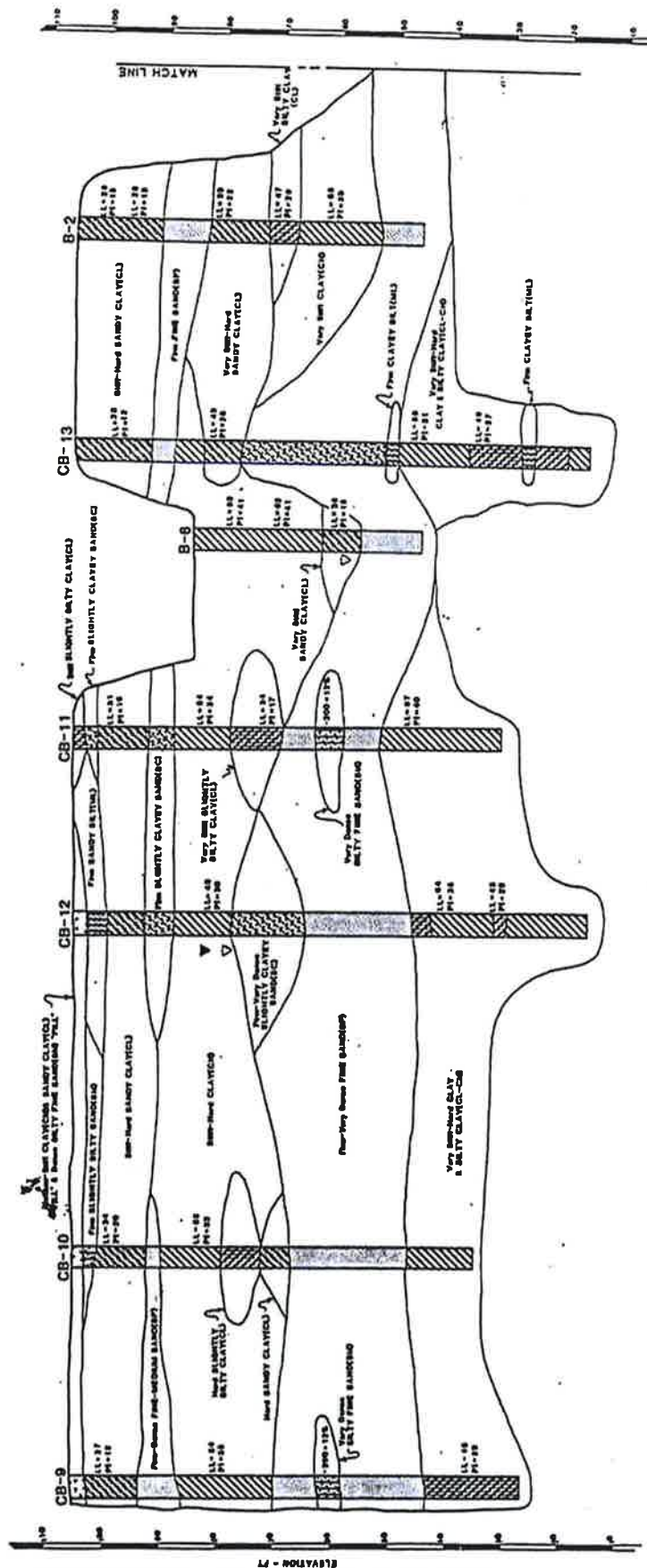
McBride-Ratcliff and Associates, Inc.
Geotechnical Consultants
Houston, Texas

SCALE	DATE	DATE	FILE NO.
NOTED	CHECK	DATE	DATE
		2-13-84	83-180
		2-13-84	

CRAWFORD STREET TYPE IV LANDFILL
HARRIS COUNTY, TEXAS

WESTERN CONTRACTORS SERVICES, INC.
HOUSTON, TEXAS

PLAN OF BORINGS



NOTE - SUBSONIC PROFILE INTERPOLATED
BETWEEN BOUNDS ACTUAL CONTOURS
MAY VARY FROM THOSE ILLUSTRATED.

Δ FREE WATER ENCOUNTERED
Δ GRADED HYALIC GROUNDWATER LEVEL



CRAWFORD STREET TYPE IV LANDFILL

HARRIS COUNTY, TEXAS

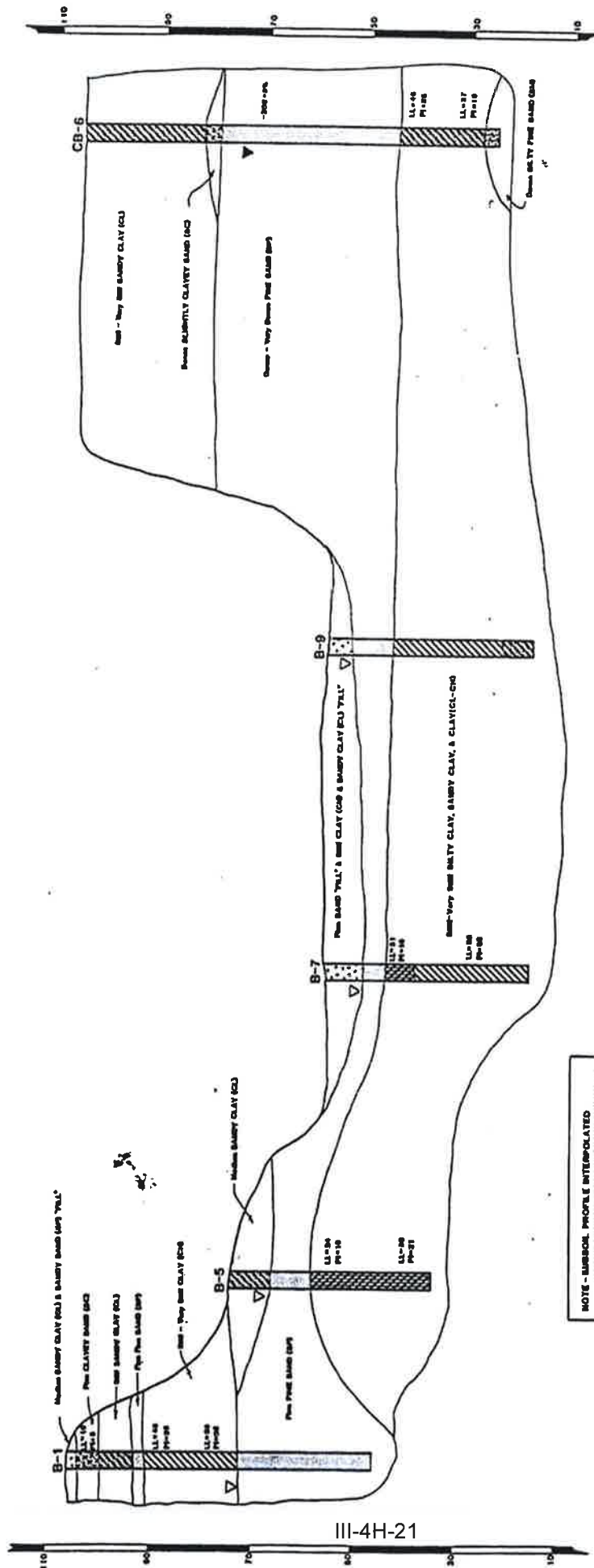
WESTERN CONTRACTORS SERVICES, INC.

HOUSTON, TEXAS

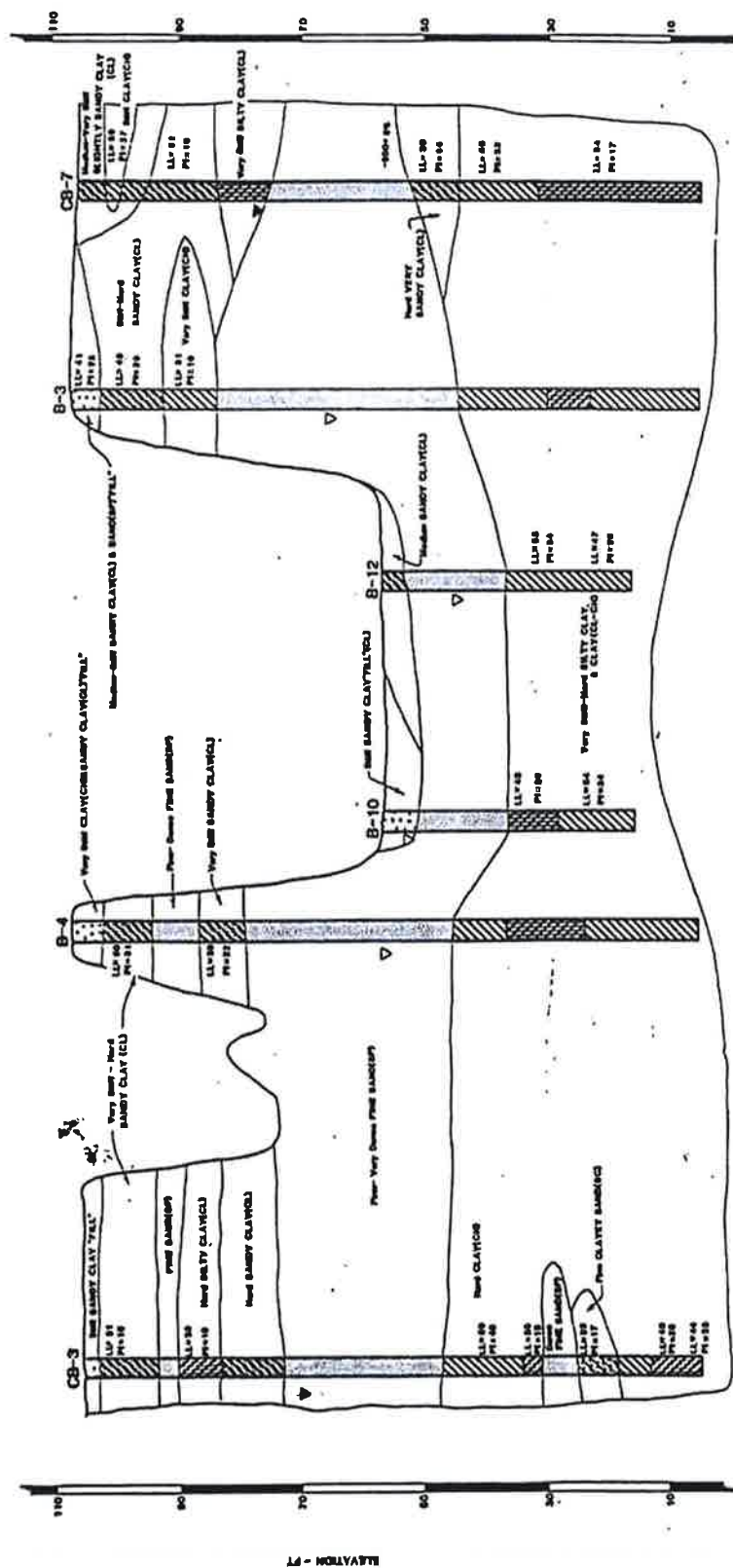


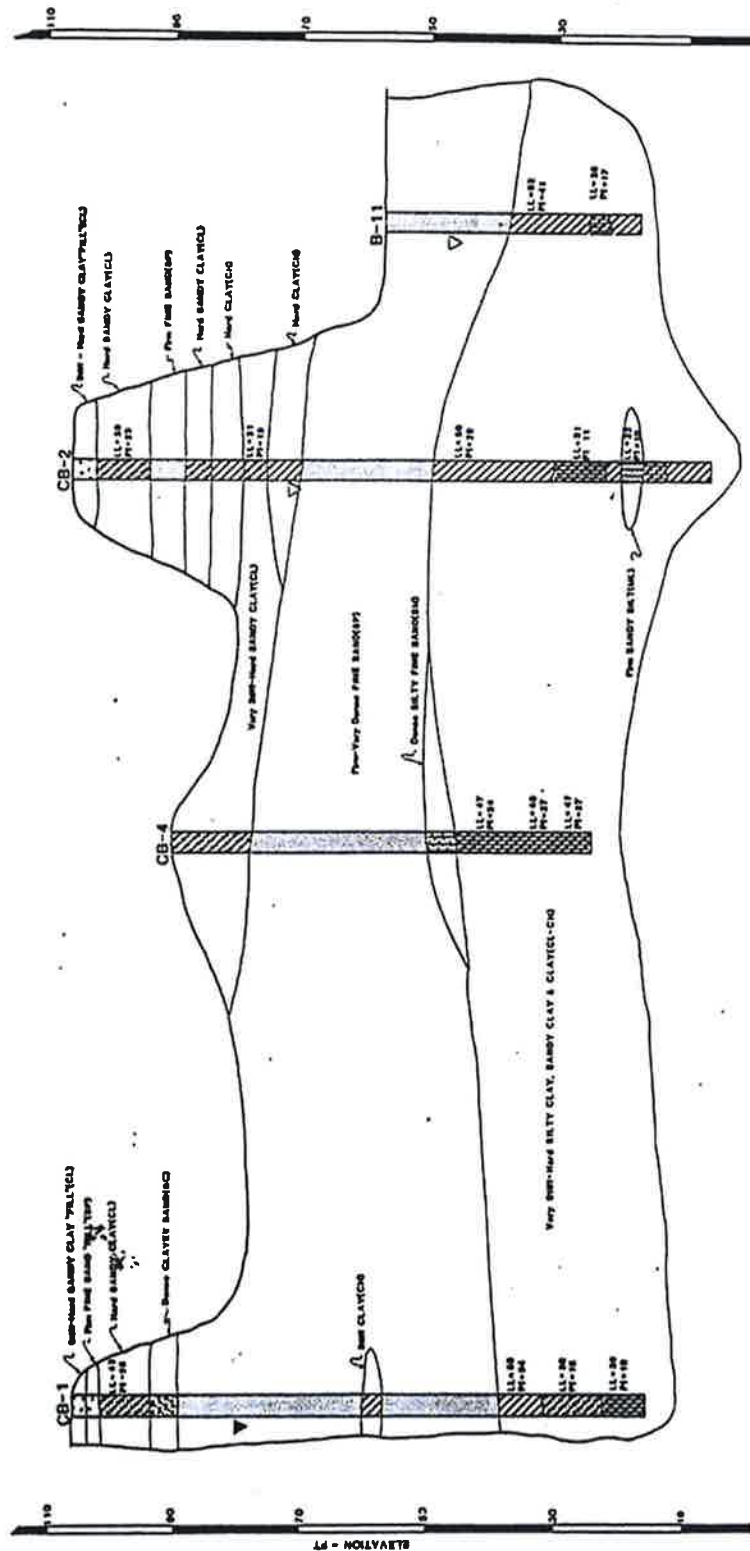
NOTED PAGE	DATE TIME	DATE TIME	NO 83-8053
		12-18-84	
		12-18-84	

SOIL PROFILE



III-4H-21





SECTION D-D

CRAWFORD STREET TYPE IV LANDFILL

HARRIS COUNTY, TEXAS

WEBSTER CONTRACTORS SERVICES, INC.

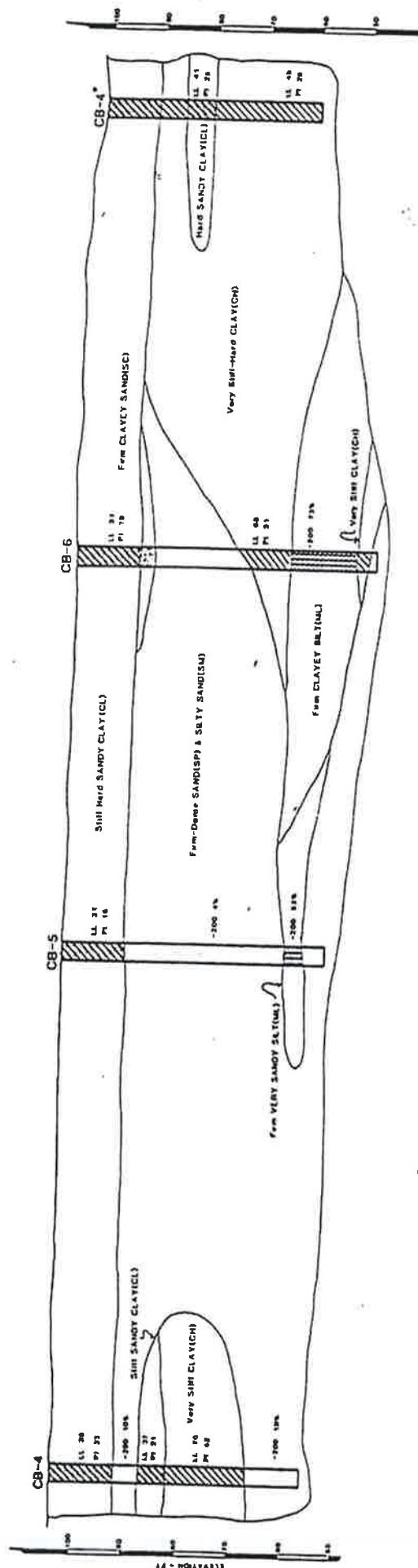
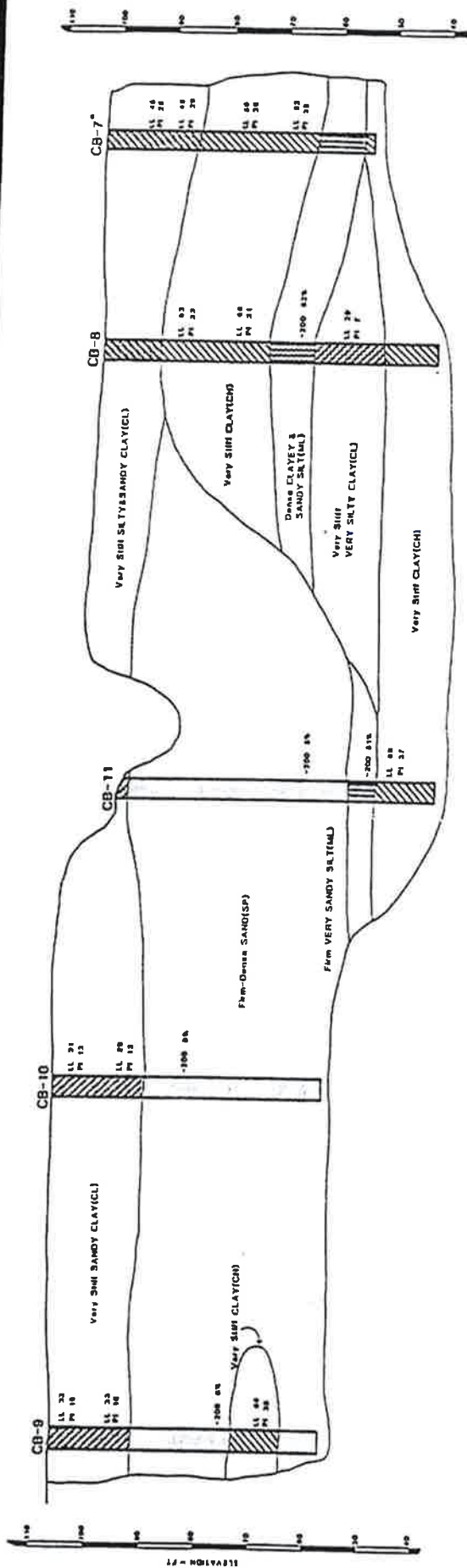
HOUSTON, TEXAS

McBride-Ratcliff and Associates, Inc.
Geotechnical Consultants
Houston, Texas

DATE NOTED	PROJECT C-100	DATE 1-24-94	DATE 1-24-94	DATE 1-24-94
BY JRM	BY JRM	BY JRM	BY JRM	BY JRM

SOIL PROFILE

8

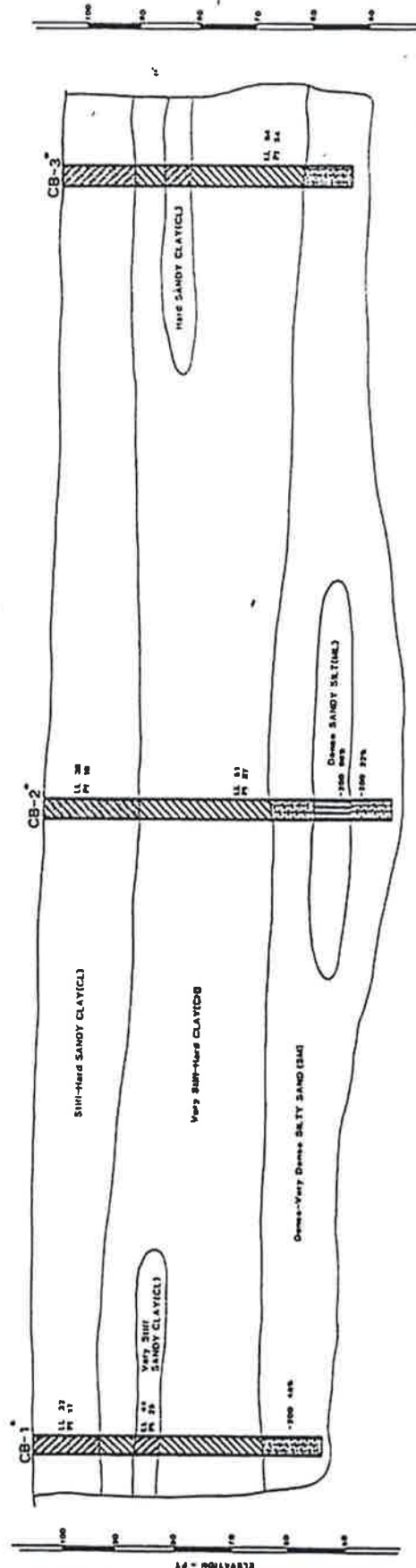
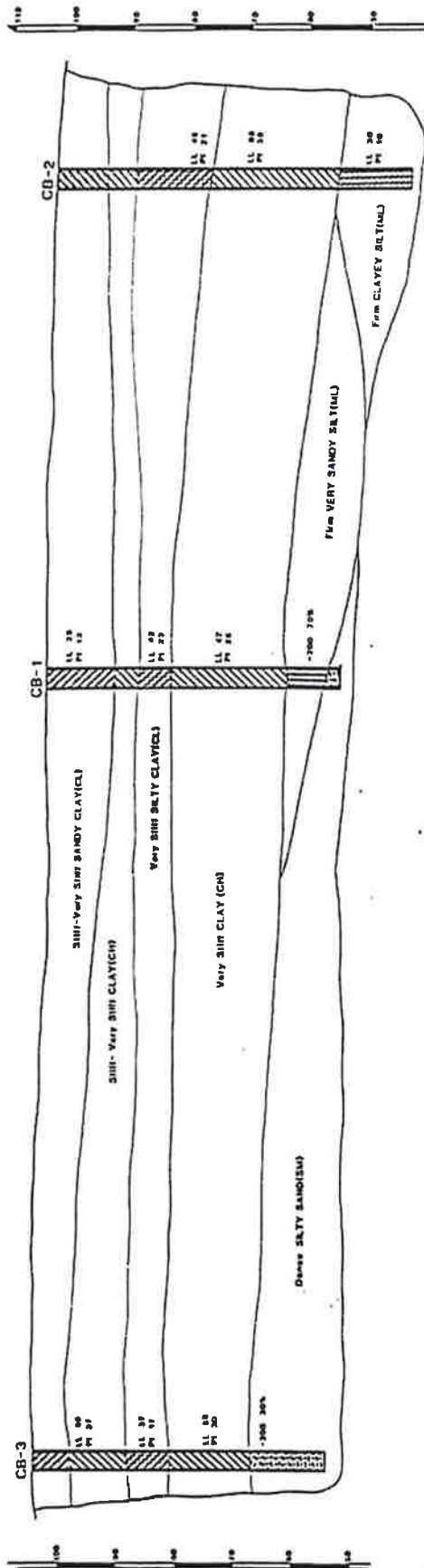


"BORINGS DRILLED FOR ORIGINAL SOILS REPORT FOR PERMIT APPLICATION NO. 1448"

NOT TO SCALE
FOR INFORMATION ONLY
DO NOT USE FOR DESIGN

TYPE IV LANDFILL
PERMIT APPLICATION NO. 1448-A
HARRIS COUNTY, TEXAS
BSI CONSULTING SERVICE, INC.
FEBRUARY 1995

McBride, Ratliff and Associates, Inc.
Geotechnical Consultants
11000 E. 11th Ave.
Suite 100
Denver, CO 80231
Tel: 303.751.1100
Fax: 303.751.1101
SOIL STRATIGRAPHY -
SECTION 11-4-5
2



BORINGS DRILLED FOR ORIGINAL SOILS REPORT
FOR PERMIT APPLICATION NO. 1448

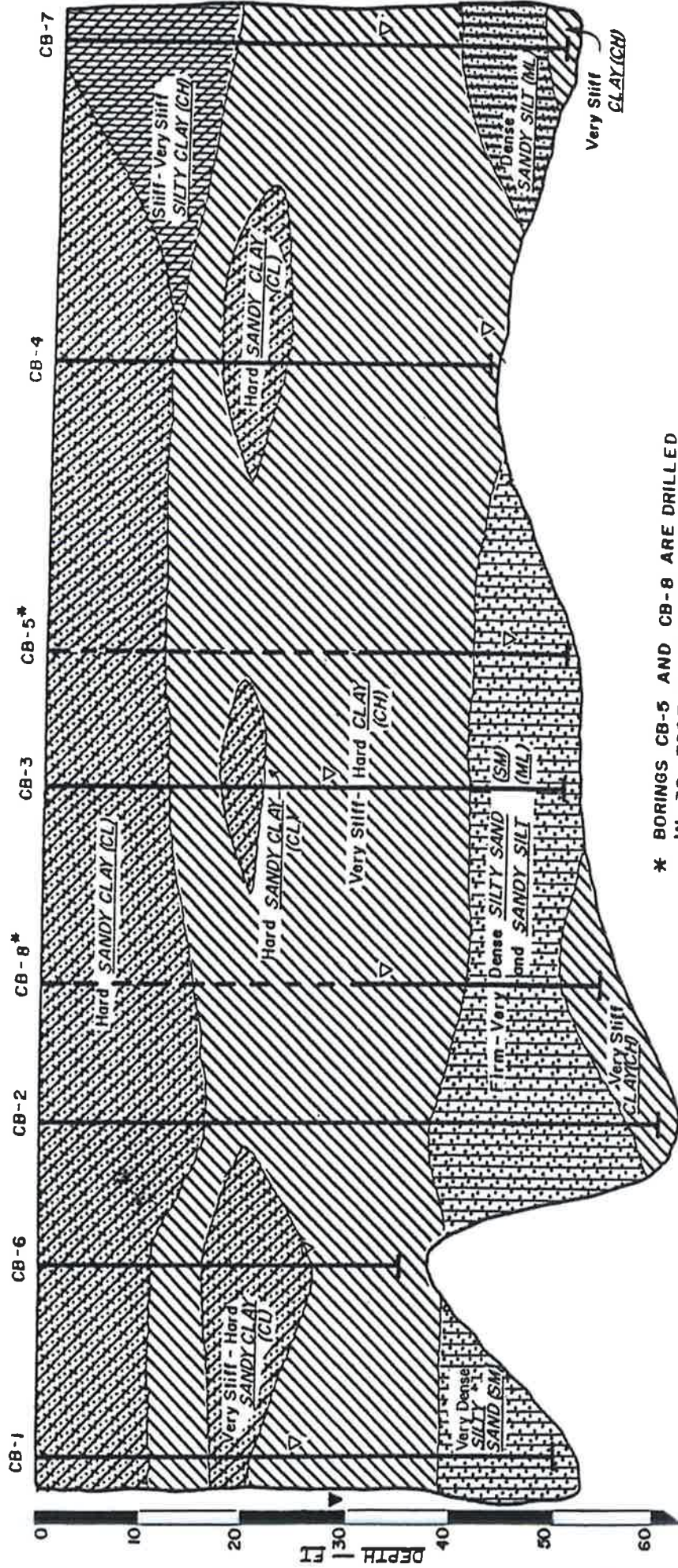
NOTED: The borings were drilled and tested in accordance with the requirements of the Texas Department of Transportation, Standard Specifications for Highway Construction, 1989 Edition, Section 1000, and the Texas Department of Transportation, Standard Specifications for Highway Construction, 1989 Edition, Section 1000.

TYPE IV LANDFILL
PERMIT APPLICATION NO. 1448-A
HARRIS COUNTY, TEXAS

BSI CONSTRUCTION SERVICES, INC.
HOUSTON, TEXAS

McBride-Racill and Associates, Inc.
Geotechnical Consultants
Houston, Texas

SOIL STRATIGRAPHY -
NORTHERN EXTENSION
3



* BORINGS CB-5 AND CB-8 ARE DRILLED
IN 30-FOOT DEEP EXCAVATION.

▽ STATIC GROUNDWATER LEVEL

△ FREE WATER ENCOUNTERED



III-4H-26

TYPE IV SANITARY LANDFILL APPLICATION
HOUSTON, TEXAS

B-S-I CONSTRUCTION SERVICES INC.
HOUSTON, TEXAS

McBride-Ratcliff and Associates, Inc.
Geotechnical Consulting
Houston, Texas

NOTED BY: DSF
DATE: 5-19-81
PROJECT: 80-269
SHEET: 2

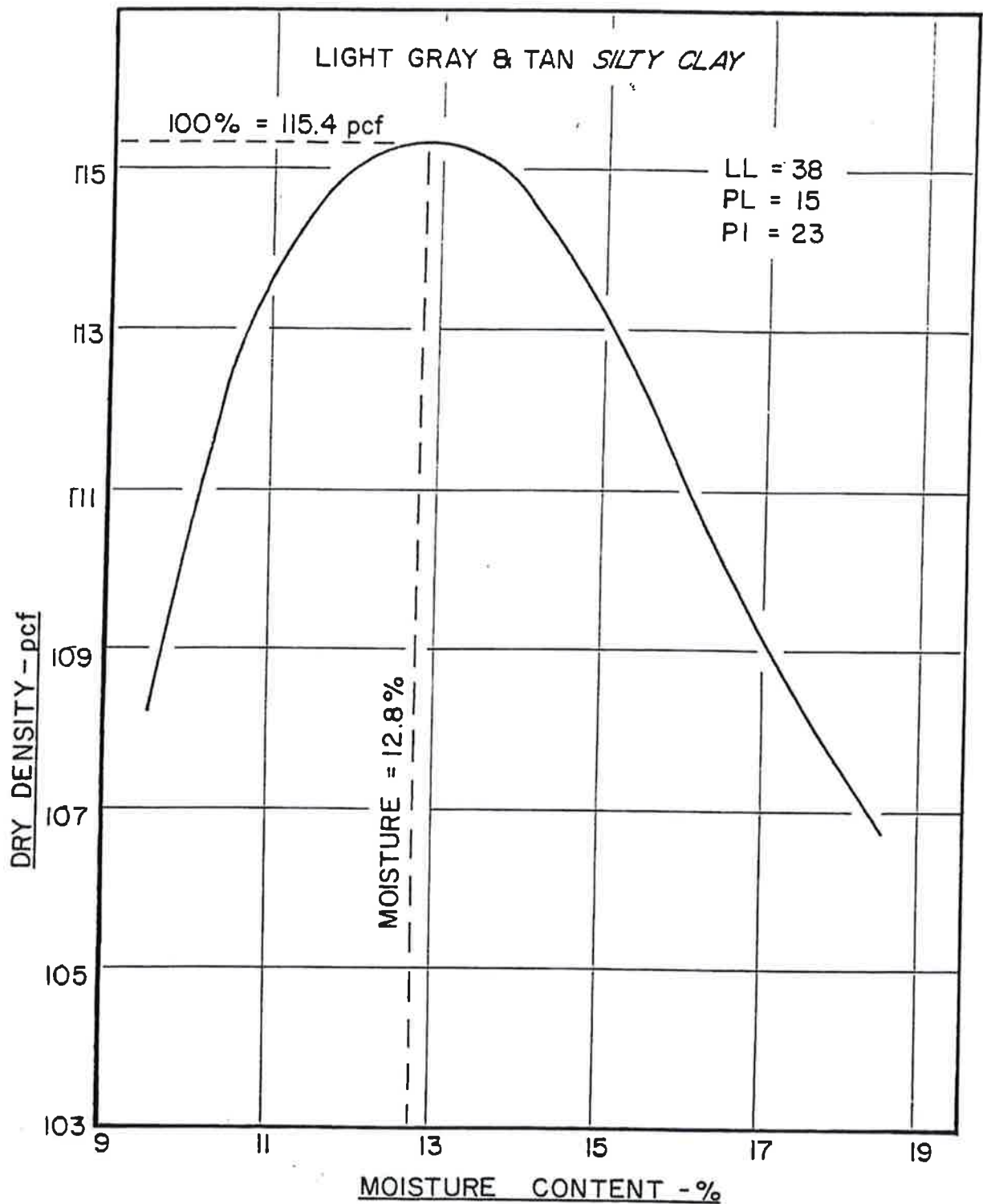
SOIL PROFILE

HISTORICAL GEOTECHNICAL LABORATORY
TEST RESULTS

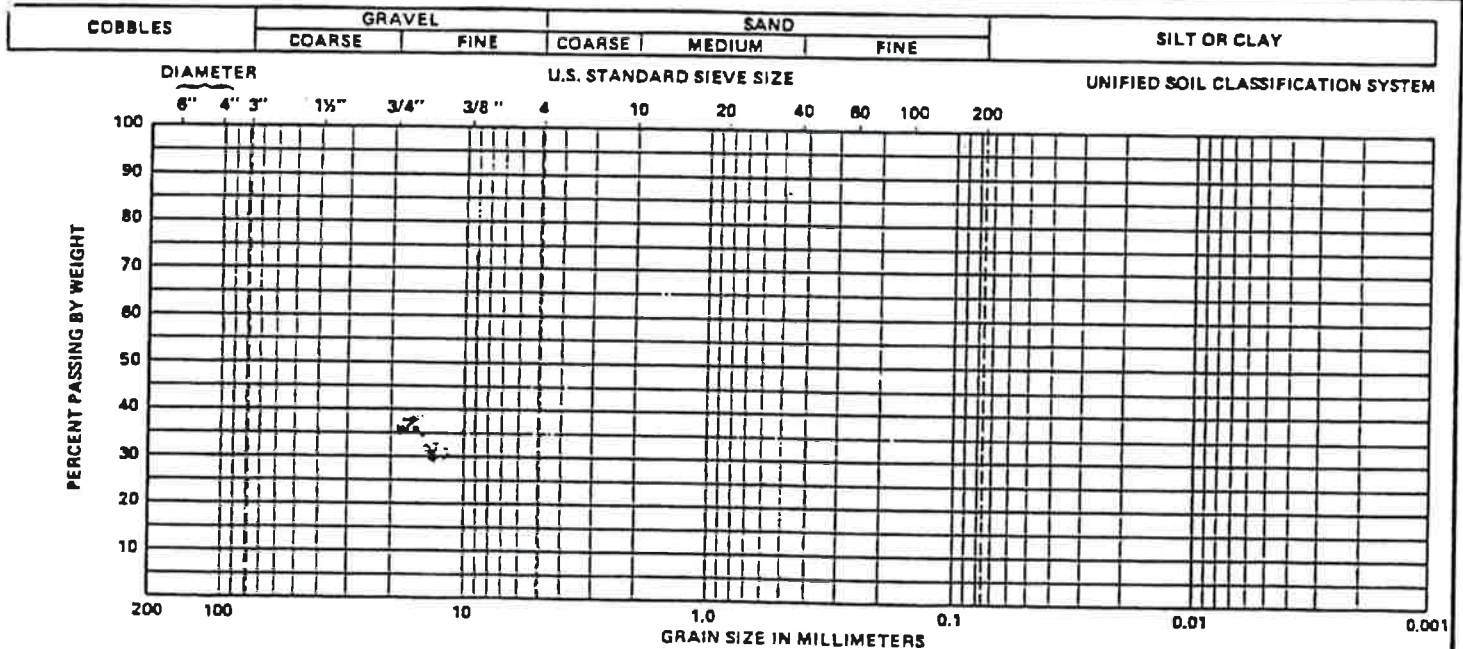
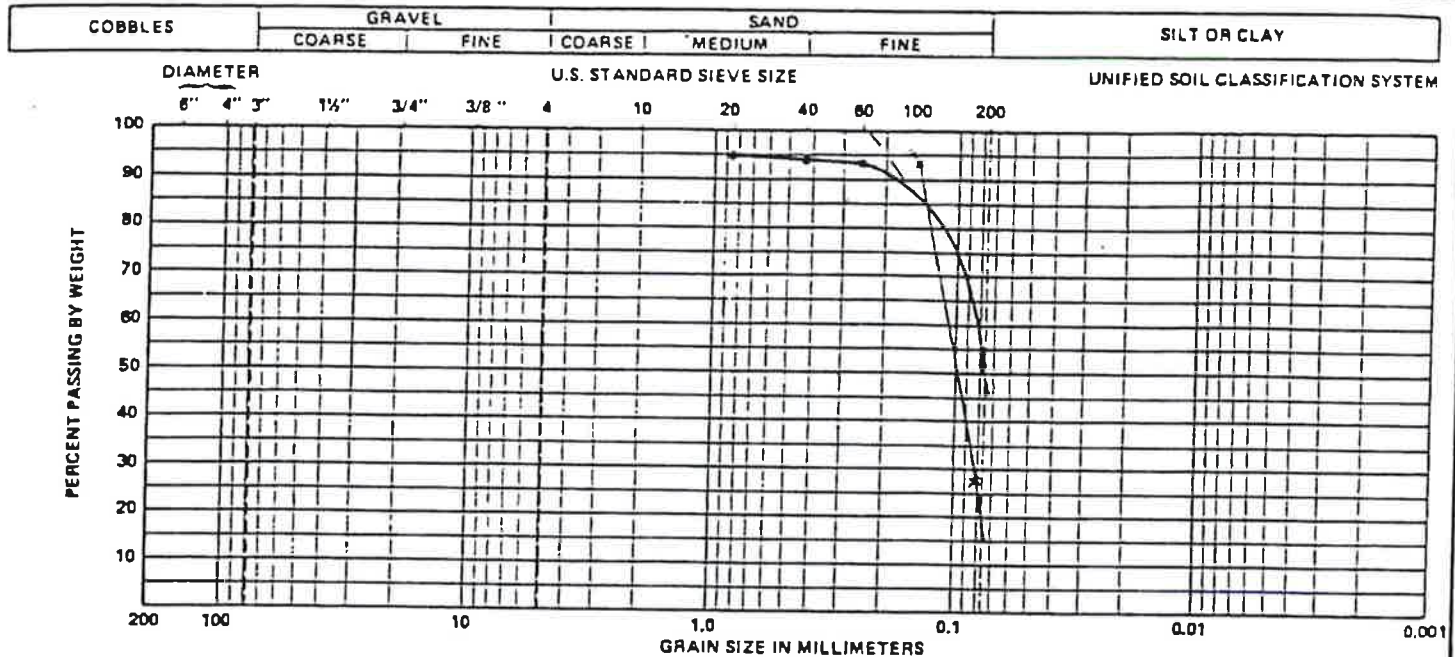
COMPRESSION **1011**

Brush Demolition Landfill, Type 6, Tanner St., Morris Co., N.J.
Project No. 77-178

BOSSING NO.	DEPTH IN FEET	TYPE OF MATERIAL	MOISTURE CONTENT	OVERLYING LAMINAE				COMPRESSIVE STRENGTH	WATER CONTENT	PERMEABILITY	COEFFICIENT OF PERMEABILITY
				11	17	27	31				
1	0-10	Stiff light gray and tan sandy clay	13	136	27	17	16				1.7×10^{-6}
	10-20	Very stiff red clay	26	95	53	20	33				2.6×10^{-6}
2	13-15	Dense light gray & tan clayey sand	14	111	27	10	9		(322 Floor)		1.9×10^{-6}
	15-20	Very stiff red-brown sandy clay with sand pockets	10	104	44	18	26				
3	2-5	Stiff gray & tan sandy clay	14	113	28	17	11				9.6×10^{-6}
	13-15	Light gray and tan silty fine sand, slightly clayey	15	107	22	19	3		(302 Floor)		5.5×10^{-7}
4	0-10	Very stiff gray and tan sandy clay	16	111	26	17	19				0.1×10^{-6}
	10-20	Very stiff red clay	25	97	50	20	40				3.2×10^{-6}
		Bulk: 902 Standard Proctor	17.7	99.7							1.0×10^{-6}
		Bulk: 952 Standard Proctor	10.0	105							2.1×10^{-6}

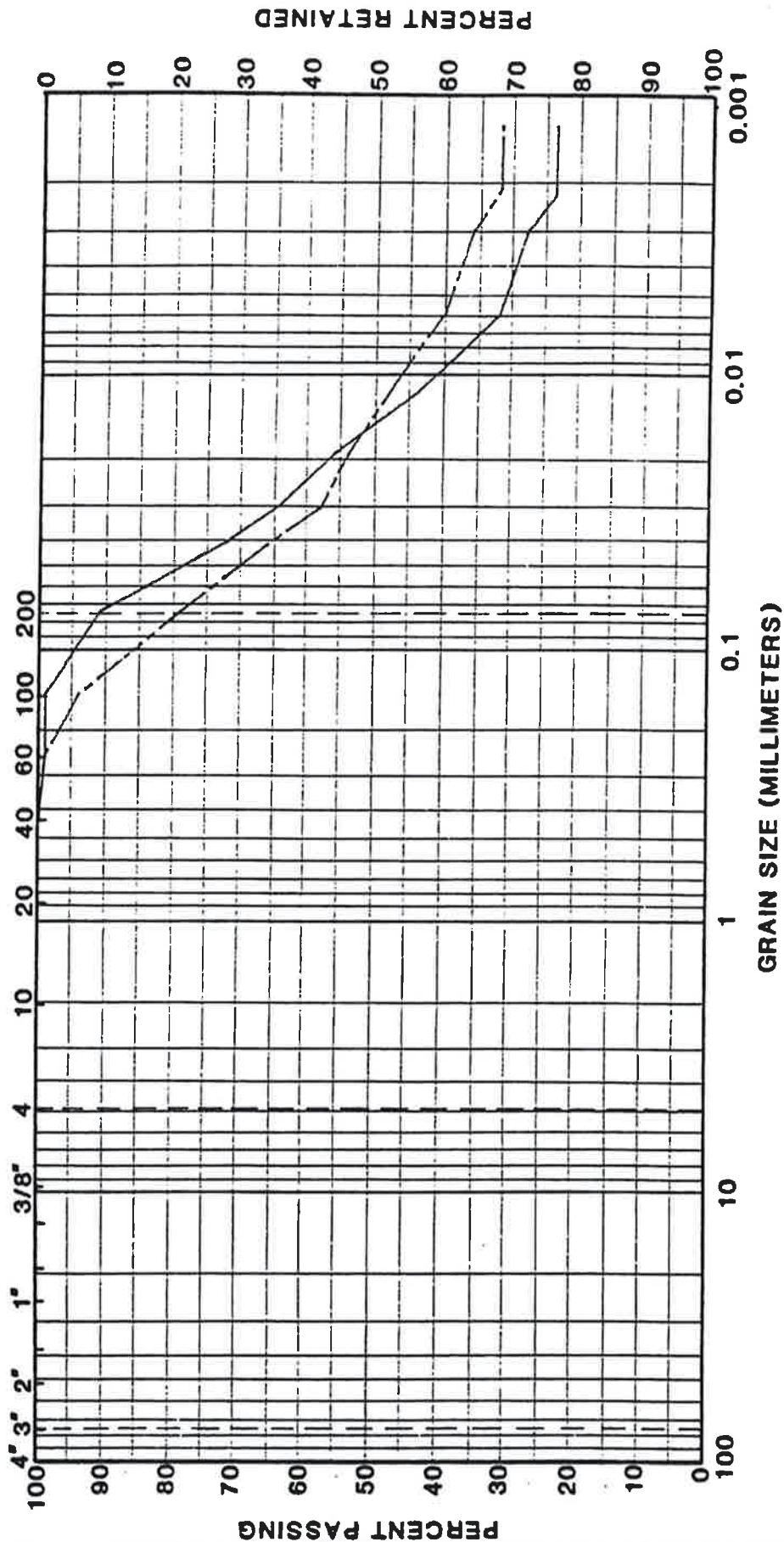


GRAIN-SIZE DISTRIBUTION



COBBLES		GRAVEL		SAND			SILT OR CLAY	
COARSE	FINE	COARSE	FINE	MEDIUM	FINE			

U. S. STANDARD SIEVE SIZES

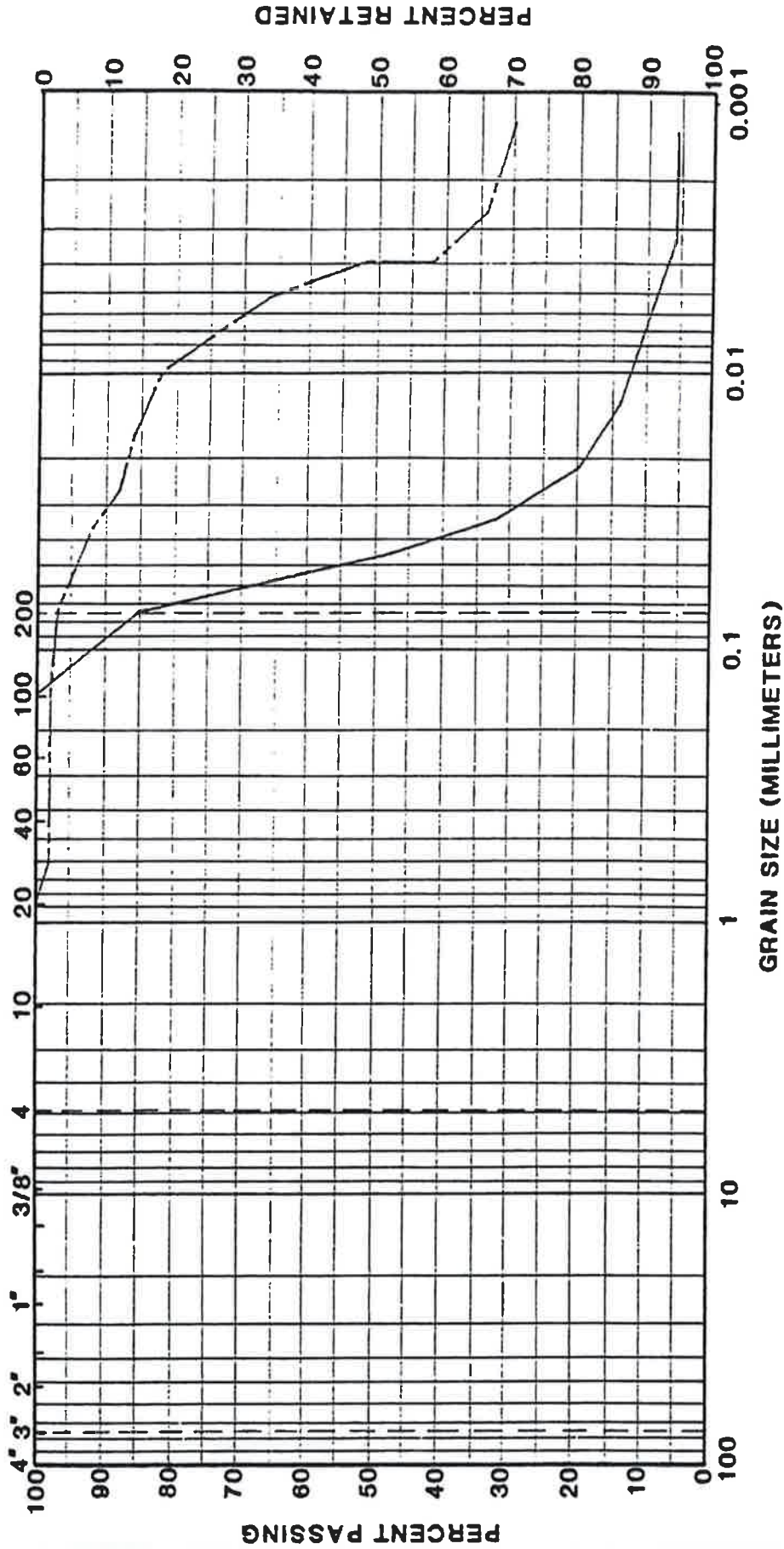


GRAIN SIZE
DISTRIBUTION
(UNIFIED SOIL CLASSIFICATION)

FILE NO: 87-028
FIGURE NO: C-1
DATE:

COBBLES		GRAVEL		SAND			SILT OR CLAY	
COARSE	FINE	COARSE	FINE	MEDIUM	FINE			

U. S. STANDARD SIEVE SIZES

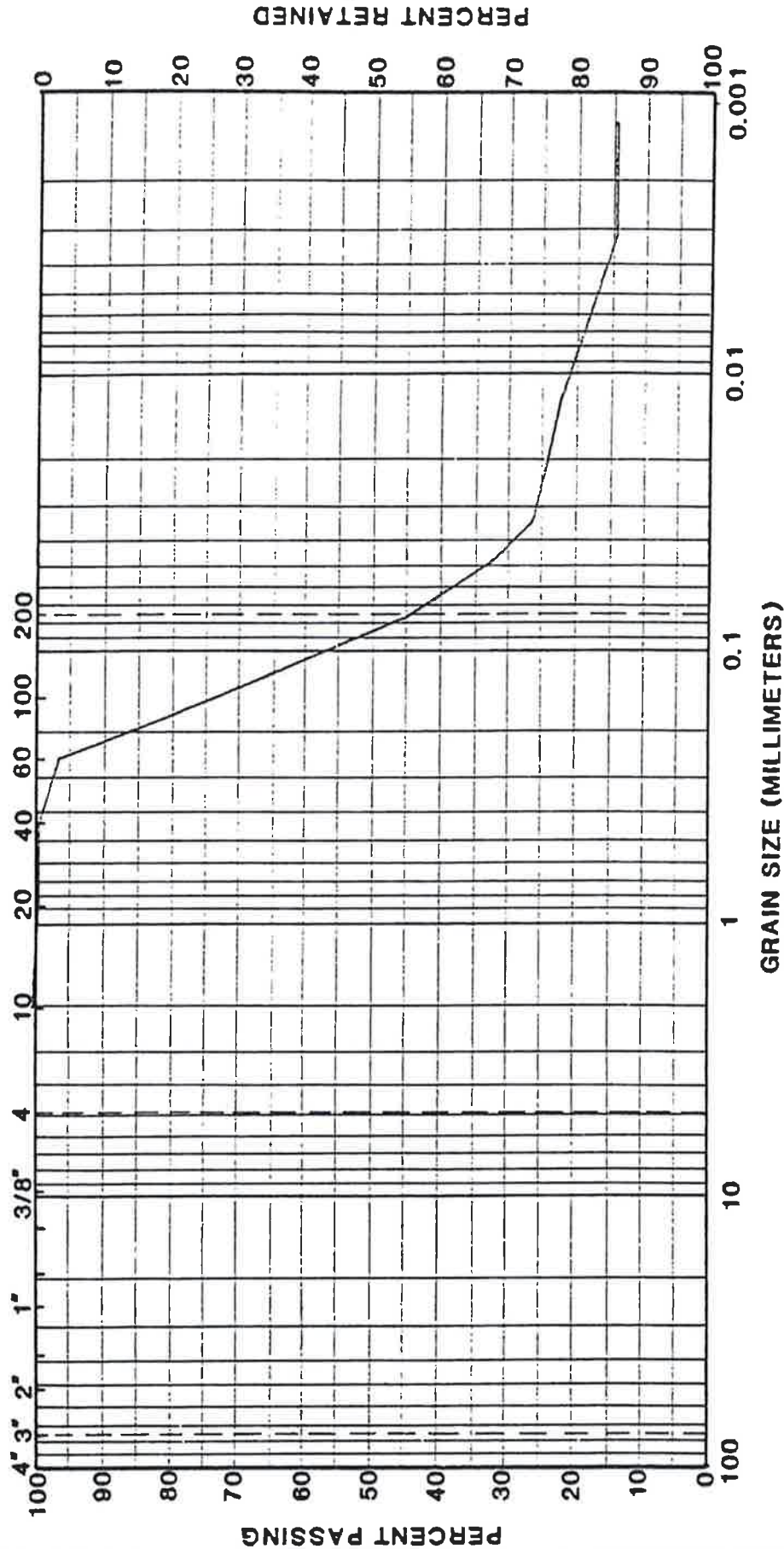


GRAIN SIZE DISTRIBUTION
(UNIFIED SOIL CLASSIFICATION)

FILE NO: B7-02B
FIGURE NO: C-2
DATE:

[illegible]

U. S. STANDARD SIEVE SIZES



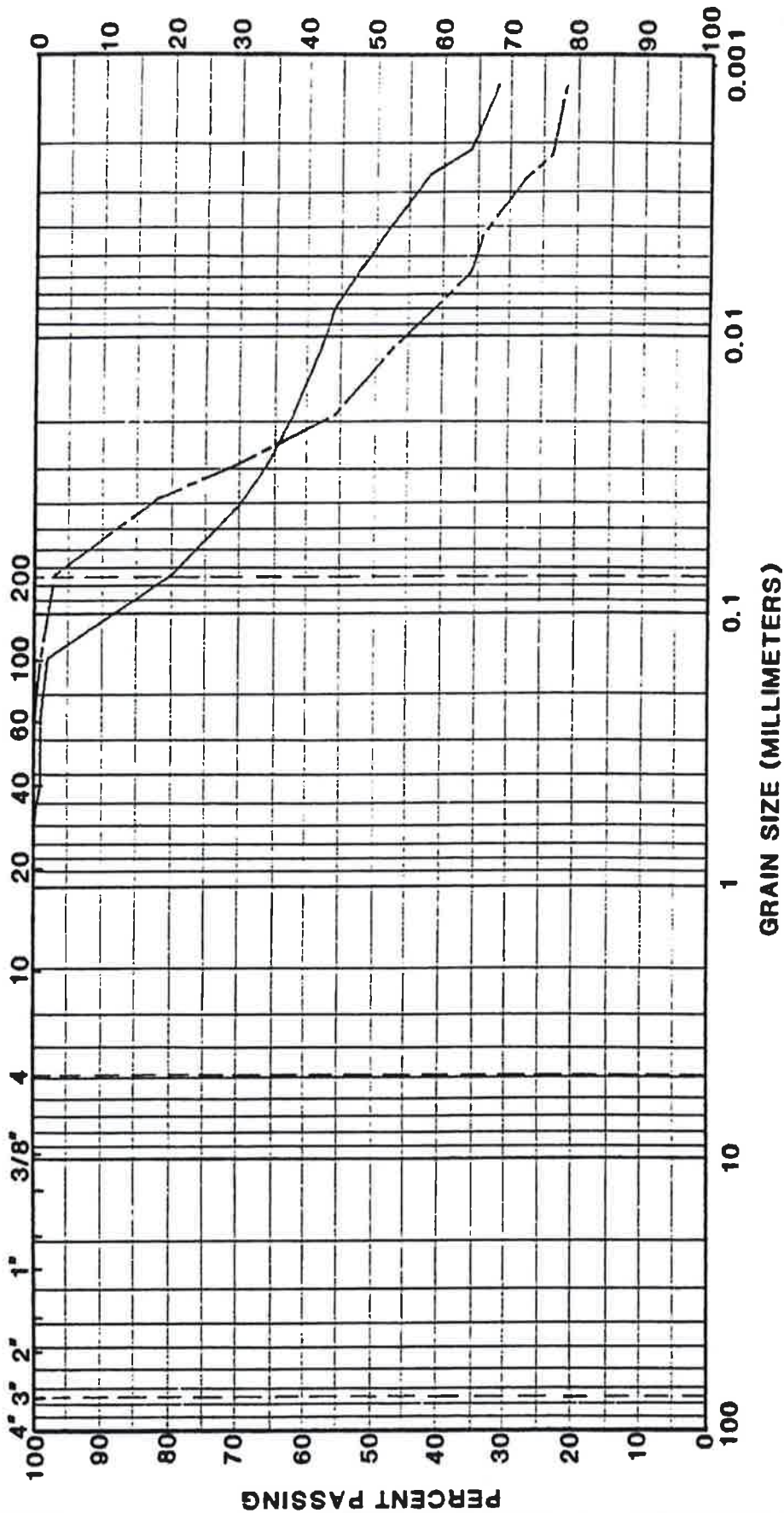
BORNG NO.	DEPTH(FT)	CLASSIFI- CATION	SYMBOL
CB-5	6-8	SC	_____

GRAIN SIZE DISTRIBUTION (UNIFIED SOIL CLASSIFICATION)

FILE NO: 87-028
FIGURE NO: C-3
DATE:

COBBLES		GRAVEL		SAND		SILT OR CLAY	
COARSE	FINE	COARSE	FINE	MEDIUM	FINE		

U. S. STANDARD SIEVE SIZES

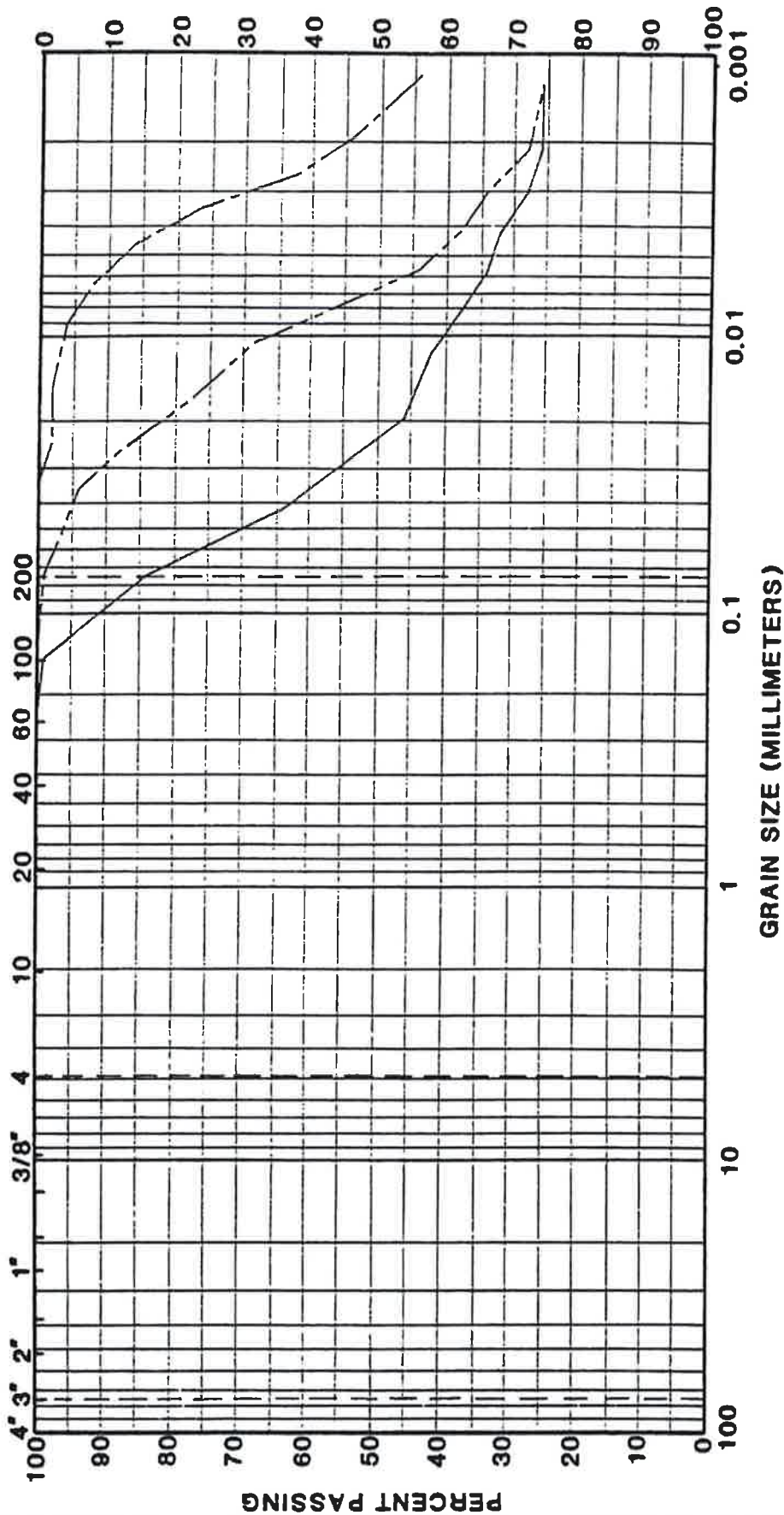


GRAIN SIZE DISTRIBUTION
(UNIFIED SOIL CLASSIFICATION)

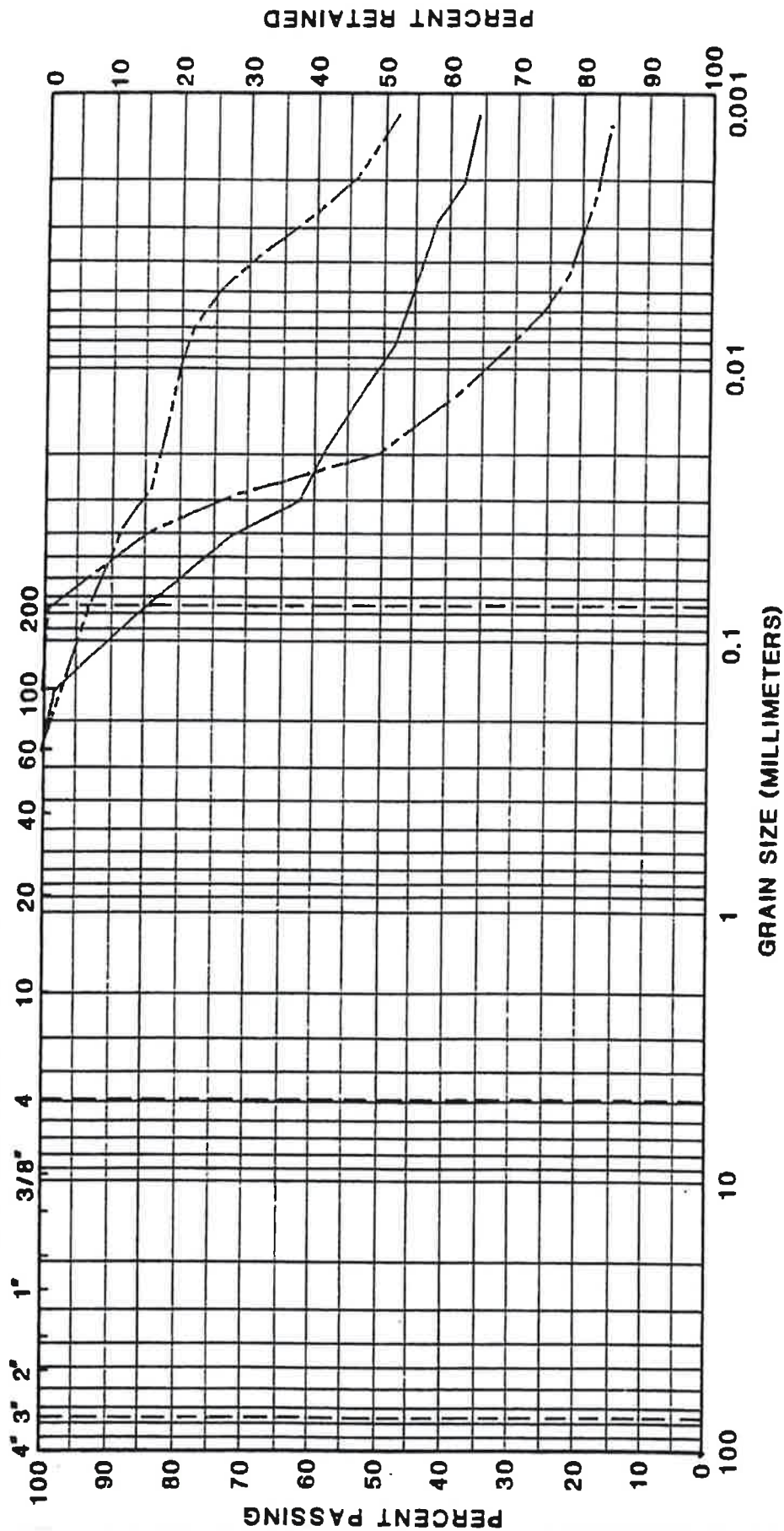
FILE NO: B7-02B
FIGURE NO: C-4
DATE:

COBBLES		GRAVEL		SAND			SLT OR CLAY	
COARSE	FINE	COARSE	FINE	COARSE	MEDIUM	FINE		

U. S. STANDARD SIEVE SIZES



U. S. STANDARD SIEVE SIZES



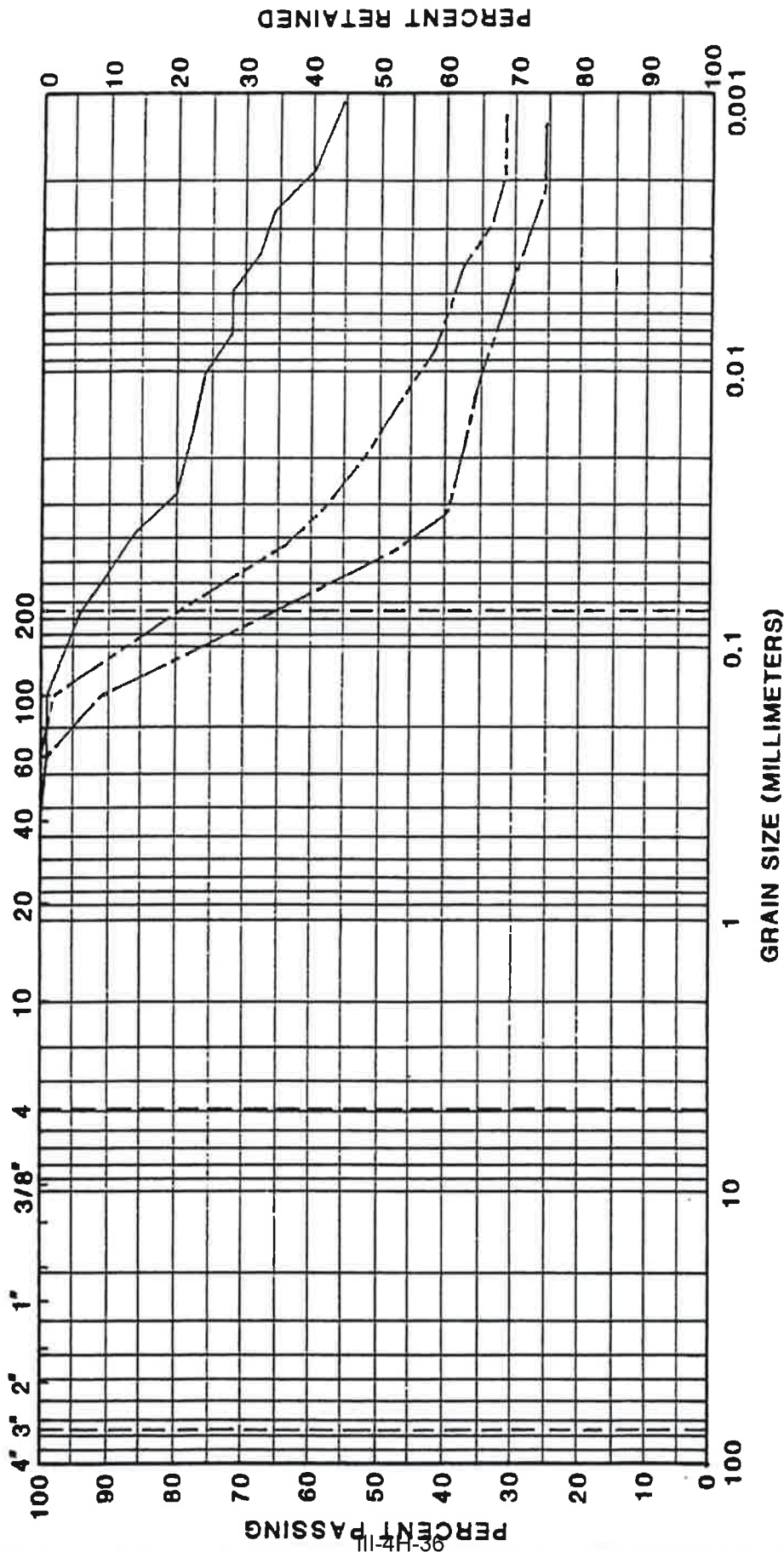
BORING NO.	DEPTH(FT)	CLASSIFI- CATION	SYMBOL
CB-11	68-70	CL	---
CB-11	78-80	ML	---
CB-13	23-25	CH	---

GRAIN SIZE DISTRIBUTION (UNIFIED SOIL CLASSIFICATION)

FILE NO. : 87-028
FIGURE NO. : C-8
DATE :

COBBLES		GRAVEL		SAND			SILT OR CLAY	
COARSE	FINE	COARSE	FINE	MEDIUM	FINE			

U. S. STANDARD SIEVE SIZES



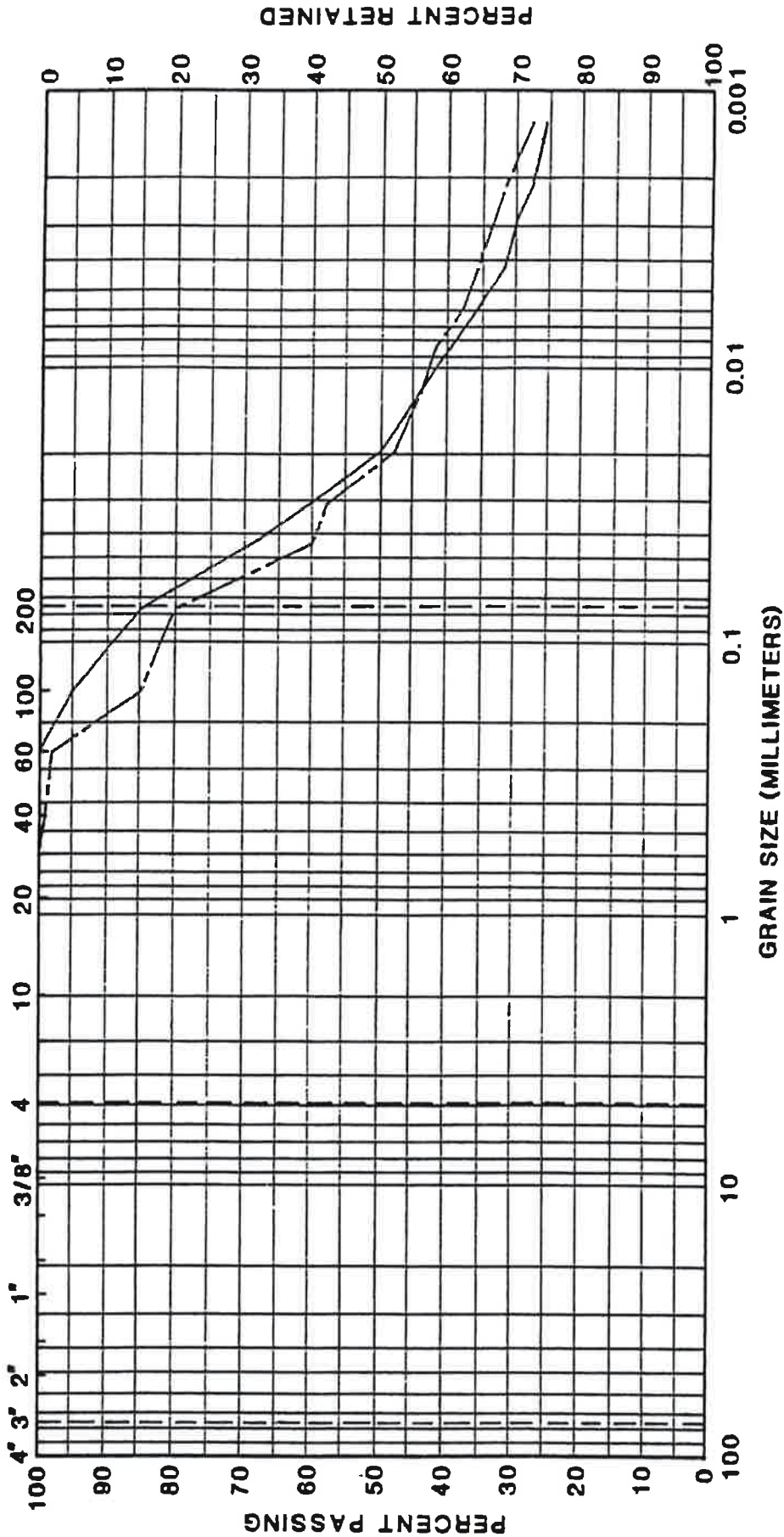
GRAIN SIZE DISTRIBUTION
(UNIFIED SOIL CLASSIFICATION)

BORING NO.	DEPTH (FT)	CLASSIFICATION	SYMBOL
CB-14	68-70	CH	---
CB-15	8-10	CL	---
CB-16	18-20	ML	---

FILE NO.: 87-028
FIGURE NO. C-7
DATE:

COBBLES		GRAVEL		SAND			SILT OR CLAY	
COARSE	FINE	COARSE	FINE	COARSE	MEDIUM	FINE		

U. S. STANDARD SIEVE SIZES



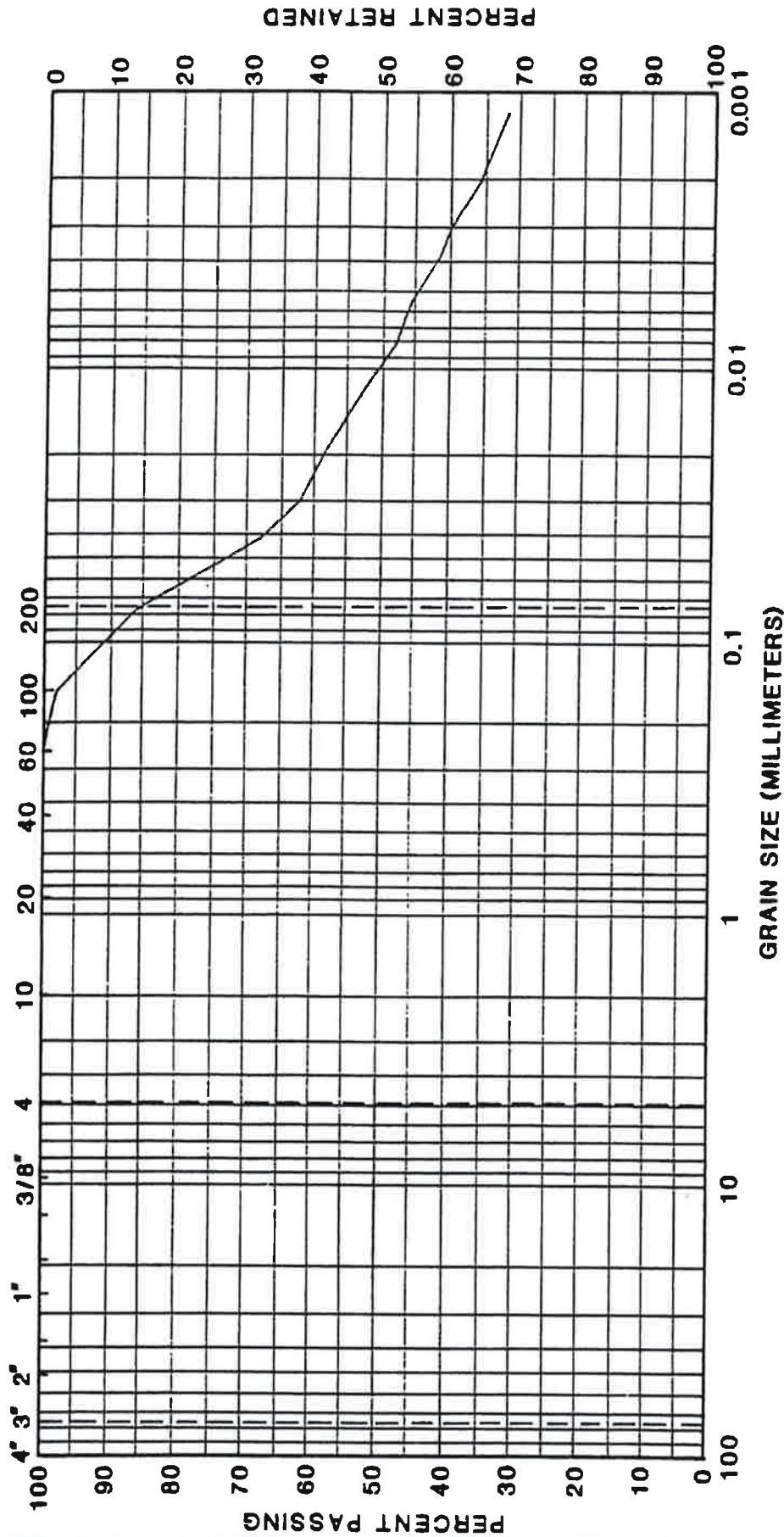
BORING NO.	DEPTH (FT)	CLASSIFICATION	SYMBOL
P-1PA	68-69	ML	—
P-3PA	68-70	CL	---

GRAIN SIZE DISTRIBUTION
(UNIFIED SOIL CLASSIFICATION)

FILE NO.: 87-028
FIGURE NO. C-9
DATE:

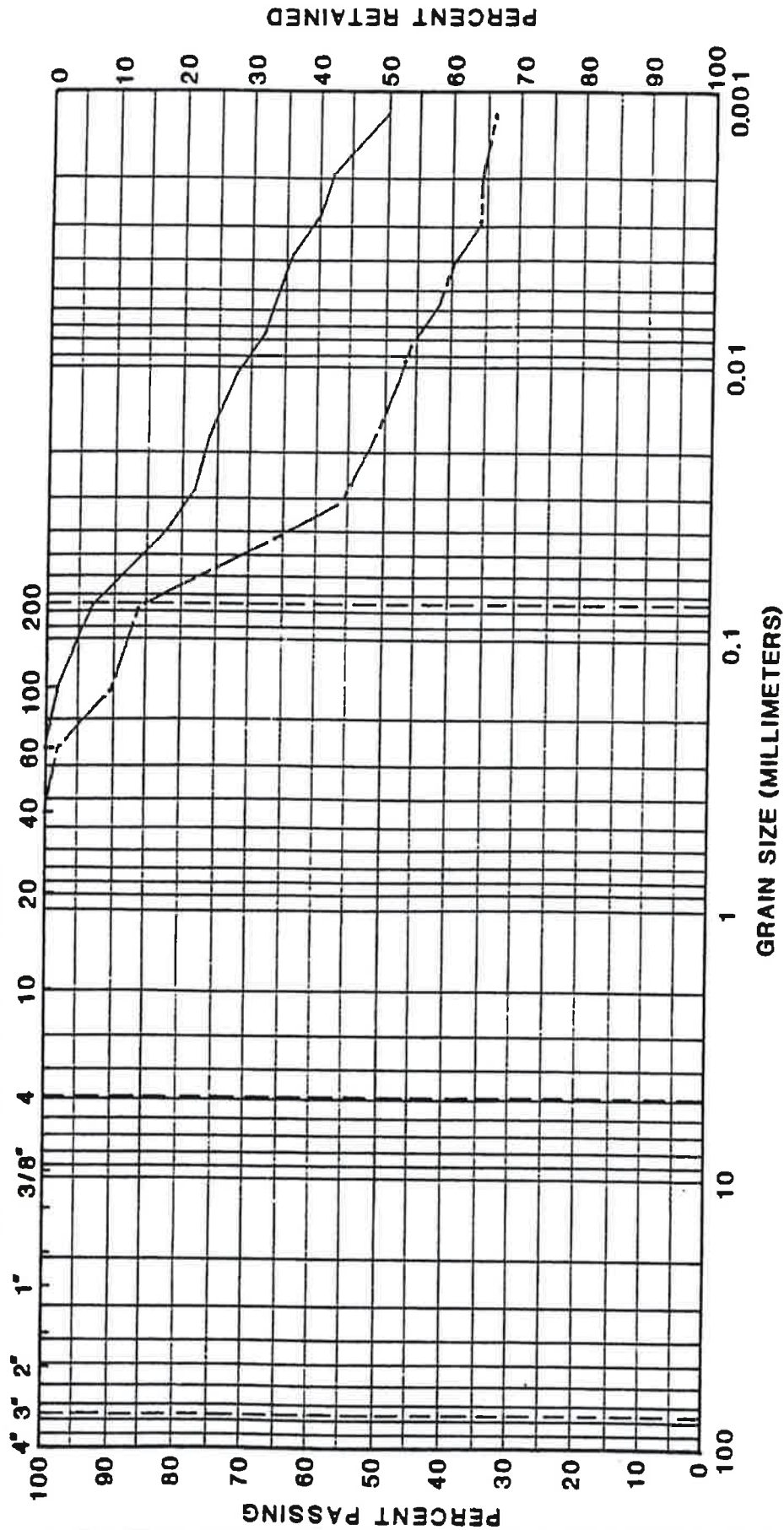
COBBLES		GRAVEL		SAND			SILT OR CLAY	
COARSE		FINE		COARSE	MEDIUM	FINE		

U. S. STANDARD SIEVE SIZES



COBBLES		GRAVEL		SAND			SILT OR CLAY	
COARSE	FINE	COARSE	FINE	COARSE	MEDIUM	FINE		

U. S. STANDARD SIEVE SIZES



III-4H-39

GRAIN SIZE
DISTRIBUTION
(UNIFIED SOIL CLASSIFICATION)

BORING NO.	DEPTH(FT)	CLASSIFICATION	SYMBOL
P-4P	58-70	CL	—
P-5PA	72-74	CL	---

FILE NO. : 87-028
FIGURE NO. C-10
DATE :