BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-21

STE
Soil Testing Engineers, Inc.
Sheet 1 of 3

File: 04-3010
Date: 09/21/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 24.0"
Longitude 90° 51' 22.5"
Surface Elevation: 1.6 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.5 (P)									Medium stiff gray CLAY (CH) w/organic matter
			0.75 (P)									
	5		0.75 (P)	0.65	45	75						
▽			1.5 (P)									
			1.5 (P)									
	10		1.75 (P)									Stiff tan and light gray SILTY CLAY (CL)
			1.5 (P)									
	15		2.0 (P)									
			2.25 (P)	1.75	24	100	47	16	31			
			2.0 (P)									
	20		2.5 (P)									
			2.75 (P)									Stiff brown and gray CLAY (CH) w/silt pockets
	25		4.0 (P)									
			3.0 (P)	1.22	36	84						
			3.0 (P)									
	30		3.0 (P)									
			2.75 (P)									
	35		3.0 (P)									Very stiff tan and light gray CLAY (CH) w/silt seams
			2.75 (P)	2.26	31	91	77	23	54			
			2.75 (P)									
	40											

Continued Next Page

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 100 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-21

STE
Soil Testing Engineers, Inc.
Sheet 2 of 3

File: 04-3010
Date: 09/21/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 24.0"
Longitude 90° 51' 22.5"
Surface Elevation: 1.6 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.5 (P)									Very stiff tan and light gray CLAY (CH) w/silt seams
			2.5 (P)									
	45		2.0 (P)									
			2.0 (P)	2.43	30	91						
			2.5 (P)									
	50		2.25 (P)									Stiff tan and light gray CLAY (CH) w/silt pockets and sand seams
			3.0 (P)									
	55		2.75 (P)									
			3.0 (P)	1.43	30	89	51	20	31			
			3.0 (P)									
	60		2.75 (P)									
			2.0 (P)									
	65		2.0 (P)									Very stiff gray CLAY (CH) w/silt seams
			1.5 (P)	3.06	30	87	60	21	39			
	70											
			2.0 (P)									
	75											
			2.5 (P)	1.81	31	89						Stiff gray CLAY (CH) w/silt seams
	80											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 100 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-21

STE
Soil Testing Engineers, Inc.
Sheet 3 of 3

File: 04-3010
Date: 09/21/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 24.0"
Longitude 90° 51' 22.5"
Surface Elevation: 1.6 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
												Stiff gray CLAY (CH) w/silt seams
	85		1.5 (P)									
												Medium dense gray CLAYEY SAND (SC)
	90		23 b/f 9-11-12		22					GS1		
	95		24 b/f 10-12-12									
	100		19 b/f 9-9-10		27					GS2		
												Boring completed at 100 ft.
	105											
	110											
	115											
	120											

Ground Water Level Data

Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 100 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

GS: Particle Size Analysis
GS1: Sand Content = 54%
GS2: Sand Content = 53%

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-22

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 08/23/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 22.6"
Longitude 90° 51' 53.3"
Surface Elevation: 1.9 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.0 (P)									Soft gray and tan CLAY (CH) w/organic matter
			1.25 (P)									
	5		0.75 (P)	0.37	58	62	105	31	74			
▽			1.5 (P)									Medium stiff tan and gray CLAY (CH) w/organic matter and silt layers
			1.5 (P)	0.62	29	91						
	10		1.5 (P)									
			2.5 (P)									
	15		2.5 (P)									Stiff grey and tan CLAY (CH)
			2.75 (P)	1.70	26	97	62	18	44			
			3.25 (P)									
	20		3.5 (P)									
			4.0 (P)									Stiff tan and brown CLAY (CH) w/sand seams
	25		4.0 (P)	1.00	28	95						
			3.25 (P)									
			2.75 (P)									
	30		3.5 (P)									Stiff tan and light gray CLAY (CH) w/silt seams
			3.5 (P)		38 36	82 86	87	27	60	Kv Kh		
	35		3.0 (P)	1.76	38	81	94	31	63			
			2.5 (P)									Medium stiff tan and brown CLAY (CH) w/silt lenses
			2.5 (P)									
	40											

Continued Next Page

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

Kv: Vertical Permeability = 1.6 x 10(-9) cm/sec
Kh: Horizontal Permeability = 2.9 x 10(-9) cm/sec

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-22

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 08/23/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 22.6"
Longitude 90° 51' 53.3"
Surface Elevation: 1.9 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.5 (P)									Medium stiff tan and brown CLAY (CH) w/silt lenses
			3.0 (P)	0.90	32	91						
	45		3.0 (P)									Very stiff tan and brown CLAY (CH) w/organic matter
			2.75 (P)									
			3.0 (P)									
	50		3.25 (P)									
			3.5 (P)	3.56	31	91	67	23	44			
	55		2.0 (P)									Stiff gray and light gray CLAY (CH) w/sand seams
			2.25 (P)									
			3.0 (P)	1.67	30	90						
	60		3.0 (P)									
			2.0 (P)									
	65		4.0 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-23

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/22/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 20.0"
Longitude 90° 51' 32.8"
Surface Elevation: 2.5 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			0.5 (P)									Medium stiff gray and tan CLAY (CH) w/organic matter
			0.5 (P)									
	5		1.0 (P)									
▽			1.5 (P)	0.86	30	90	64	19	45			
			0.25 (P)									
	10		0.25 (P)									
			0.5 (P)									Stiff tan and light gray CLAY (CH) w/silt seams
	15		0.5 (P)									
			2.0 (P)	1.19	24	98						
			2.5 (P)									
	20		2.5 (P)									
			2.5 (P)									
	25		2.0 (P)									
			2.5 (P)	2.07	28	95	71	21	50			
			3.0 (P)		24 25	99 101	67	17	50	Kv Kh		
	30		2.5 (P)									
			2.5 (P)									
	35		3.0 (P)									
			2.5 (P)	1.14	26	95						
			2.0 (P)									
	40											

Continued Next Page

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

Kv: Vertical Permeability = 4.7 x 10(-9) cm/sec
Kh: Horizontal Permeability = 1.3 x 10(-9) cm/sec

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-23

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/22/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 20.0"
Longitude 90° 51' 32.8"
Surface Elevation: 2.5 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.5 (P)									Stiff tan and light gray CLAY (CH) w/silt seams
			3.0 (P)									Very stiff gray CLAY (CH) w/organics
	45		4.0 (P)									
			4.0 (P)	3.44	33	90	63	22	41			
			4.0 (P)									
	50		3.0 (P)									
			2.5 (P)									Stiff gray CLAY (CH)
	55		2.5 (P)									
			2.5 (P)	1.59	38	82						
			3.0 (P)									
	60		2.5 (P)									
			3.0 (P)									
	65		3.5 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-24

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/10/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 20.1"
Longitude 90° 51' 20.9"
Surface Elevation: 1.9 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.25 (P)									Stiff gray and tan CLAY (CH) w/organic matter
			1.0 (P)									
	5		1.0 (P)	1.03	40	81						
▽			1.0 (P)									
			1.25 (P)									
	10		1.5 (P)									Stiff tan and gray CLAY (CH) w/silt seams
			1.25 (P)									
	15		2.5 (P)	1.50	24	99	55	13	42			
			2.0 (P)									
			2.25 (P)									
	20		1.75 (P)									
			1.75 (P)									
	25		3.5 (P)	1.07	38	80						
			3.0 (P)									
			2.5 (P)									
	30		2.75 (P)									
			2.5 (P)									Medium stiff tan and light gray SILTY CLAY (CL)
	35		3.25 (P)	0.91	27	93	35	17	18			
			3.0 (P)									
			2.5 (P)									
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 50 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-24

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/10/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 20.1"
Longitude 90° 51' 20.9"
Surface Elevation: 1.9 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			4.0 (P)									Very stiff gray CLAY (CH)
			3.5 (P)									
	45		3.75 (P)	3.56	28	93						
			2.5 (P)									
			1.25 (P)									
	50											Boring completed at 50 ft.
	55											
	60											
	65											
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 50 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-25

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/10/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 20.1"
Longitude 90° 51' 37.1"
Surface Elevation: 2.8 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.0 (P)									Medium stiff gray CLAY (CH) w/organic matter
			1.0 (P)	0.60	37	82	74	17	57			
	5		1.5 (P)									
▽			2.0 (P)									
			2.75 (P)									
	10		3.0 (P)									
			2.5 (P)	2.17	24	100						Very stiff tan and light gray CLAY (CH) w/organics
	15		2.0 (P)									
			2.25 (P)									
			2.5 (P)									
	20		3.0 (P)									Stiff light gray and tan CLAY (CH) w/silt seams
			3.75 (P)	1.80	29	94	80	16	64			
	25		3.0 (P)									
			4.5 (P)									
			2.5 (P)									
	30		2.5 (P)									
			3.0 (P)	1.58	25	97						
	35		3.0 (P)									
			3.0 (OP)									
			3.5 (P)									
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 50 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/28/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-25

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/10/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 20.1"
Longitude 90° 51' 37.1"
Surface Elevation: 2.8 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
			3.75 (P)									Stiff light gray and tan CLAY (CH) w/silt seams
			3.0 (P)	1.40	35	83	68	22	46			
	45		3.0 (P)									
			3.0 (P)									Very stiff light gray CLAY (CH)
			3.0 (P)	3.23	25	95						
	50											Boring completed at 50 ft.
	55											
	60											
	65											
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 50 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01_043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-26

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/22/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 20.0"
Longitude 90° 51' 27.7"
Surface Elevation: 2.6 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.0 (P)	1.26	35	68	107	31	76			Stiff brown and gray CLAY (CH) w/organic matter
			0.5 (P)									
	5		0.5 (P)									
			0.5 (P)									
▽			1.0 (P)	1.09	27	95						
	10		1.5 (P)									
			2.0 (P)									
	15		3.0 (P)									Stiff tan CLAY (CH)
			2.0 (P)									
			2.5 (P)	1.23	34	84	88	25	63			
	20		2.5 (P)									
			3.0 (P)									
	25		3.5 (P)									
			4.0 (P)									Hard tan and light gray CLAY (CH)
			4.5 (P)	4.41	21	103						
	30		4.5 (P)									
			4.5 (P)									
	35		3.0 (P)									Stiff tan and light gray CLAY (CH) w/silt seams and lenses
			2.5 (P)		27	95	37	18	19	CON		
			3.5 (P)	1.06	28	92	71	19	52			
	40											

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Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	CON: Consolidation test (see curve)
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-26

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/22/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 20.0"
Longitude 90° 51' 27.7"
Surface Elevation: 2.6 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.0 (P)									Stiff tan and light gray CLAY (CH) w/silt seams and lenses
			3.5 (P)									
	45		3.5 (P)									
			3.0 (P)		25	96	60	19	41	CON		
			2.5 (P)	1.67	30	92						
	50		3.0 (P)									
			2.5 (P)									Stiff light gray and tan SILTY CLAY (CL)
	55		3.0 (P)									
			4.0 (P)									
			2.5 (P)	1.61	29	91	41	21	20			
	60		3.0 (P)									
			3.0 (P)									
	65		1.5 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data

Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

CON: Consolidation test (see curve)

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-28

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/03/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 32.8"
Longitude 90° 52' 03.5"
Surface Elevation: 5.3 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.5 (P)									Medium stiff dark gray and tan CLAY (CH) w/organic matter and silt layers
			2.0 (P)									
	5		2.0 (P)	0.55	32	87	63	20	43			
▽			2.0 (P)									
			2.25 (P)	1.37	26	98						Stiff light gray and tan CLAY (CH) w/silt seams
	10		2.5 (P)									
			2.5 (P)									
	15		2.5 (P)									
			3.0 (P)	1.88	24	100	42	17	25			
			3.0 (P)									
	20		3.5 (P)									
			3.5 (P)									
	25		3.0 (P)									Very stiff light gray and tan CLAY (CH)
			3.25 (P)	3.04	23	101						
			3.5 (P)									
	30		3.0 (P)									
			3.5 (P)									Stiff light gray CLAY (CH)
	35		3.75 (P)									
			3.5 (P)	1.92	32	89	83	22	61			
			3.5 (P)									
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-28

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/03/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 32.8"
Longitude 90° 52' 03.5"
Surface Elevation: 5.3 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
			3.5 (P)									Stiff light gray CLAY (CH)
			3.5 (P)									
	45		3.0 (P)									Very stiff light gray CLAY (CH) w/silt seams
			3.5 (P)	2.08	36	85						
			3.5 (P)									
	50		3.5 (P)									
			3.5 (P)									
	55		3.75 (P)									Stiff gray SANDY CLAY (CL) w/silt seams
			3.0 (P)	1.29	25	97	36	18	18			
			2.5 (P)									
	60		2.75 (P)									
			2.75 (P)									
	65		3.0 (P)	1.19	33	88						
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/28/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-3

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 08/21/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 32.9"
Longitude 90° 51' 43.0"
Surface Elevation: 1.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.0 (P)									Soft gray CLAY (CH) w/organic matter and silt layers
			0.5 (P)	0.41	54	67	93	27	66			
	5		1.0 (P)									
▽			1.5 (P)	1.19	26	99						Stiff tan and gray CLAY (CH) w/organic matter and silt seams
			1.5 (P)									
	10		2.25 (P)									Very stiff light gray and tan CLAY (CH) w/organic matter and silt seams
			3.5 (P)	2.18	20	106	54	17	37			
	15		2.5 (P)									
			3.0 (P)									
			3.5 (P)	3.44	21	105						
	20		3.5 (P)									
			3.0 (P)	2.90	22	104	56	19	37			
	25		3.75 (P)									
			3.5 (P)									
			2.5 (P)									
	30		3.5 (P)	2.81	33	90						
			2.5 (P)									
	35		2.75 (P)									
			3.0 (P)									
			2.75 (P)	1.64	35	89	57	21	36			Stiff light gray and tan CLAY (CH) w/organic matter
	40											

Continued Next Page

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

Strata Boundaries May Not Be Exact

LOG01 04-3010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-3

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 08/21/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 32.9"
Longitude 90° 51' 43.0"
Surface Elevation: 1.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.5 (P)									Stiff light gray and tan CLAY (CH) w/organic matter
			2.0 (P)									
	45		3.0 (P)	2.12	29	99						Very stiff light gray and gray CLAY (CH) w/silt seams and pockets, and organic matter
			2.75 (P)									
			2.5 (P)									
	50		3.5 (P)	2.90	26	97	57	19	38			
			3.75 (P)									
	55		2.0 (P)									Stiff light gray and tan CLAY (CH) w/silt traces
			3.0 (P)	1.51	30	90						
			3.5 (P)									
	60		3.0 (P)									
			3.0 (P)									
	65		4.0 (P)	1.94	26	95	56	22	34			
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/28/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-30

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/08/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.6"
Longitude 90° 52' 08.7"
Surface Elevation: 5.1 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			4.5 (P)									Medium stiff gray and tan CLAY (CH) w/organic matter and silt seams
			0.5 (P)	0.57	30	85						
	5		1.5 (P)									
∇			0.5 (P)	0.58t1	28	90	40	20	20			
			0.5 (P)									
	10		1.25 (P)									
			1.5 (P)									
	15		2.0 (P)									Stiff tan and light gray CLAY (CH)
			1.5 (P)	1.52	25	99						
			1.75 (P)									
	20		2.0 (P)									
			3.0 (P)									
	25		2.0 (P)									
			1.75 (P)	1.80	38	80	97	30	67			
			1.75 (P)									
	30		1.25 (P)									
			1.75 (P)									
	35		1.25 (P)									
			1.5 (P)	1.89	33	88						
			2.75 (P)									
	40											

Continued Next Page

Ground Water Level Data

∇ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

t: Unconsolidated, Undrained Triaxial Compression Test
t1: Lateral Pressure = 5.6 psi

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/28/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-30

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/08/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.6"
Longitude 90° 52' 08.7"
Surface Elevation: 5.1 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
			2.0 (P)									Stiff tan and light gray CLAY (CH)
			3.0 (P)									
	45		1.75 (P)									
			1.75 (P)	1.42	40	80	78	23	55			
			3.0 (P)									
	50		2.5 (P)									
			0.5 (P)									Medium stiff tan SILTY CLAY (CL) w/sand seams
	55		1.25 (P)									
			1.0 (P)	0.88t2	26	105						
			1.0 (P)									
	60		2.25 (P)									
			2.0 (P)									
	65		1.75 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data

Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

t: Unconsolidated, Undrained Triaxial Compression Test
t2: Lateral Pressure = 31.4 psi

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-31

STE
Soil Testing Engineers, Inc.
Sheet 1 of 3

File: 04-3010
Date: 09/08/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.6"
Longitude 90° 52' 03.5"
Surface Elevation: 5.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.0 (P)									Stiff tan and light gray CLAY (CH) w/silt seams and organic matter
			0.5 (P)									
	5		1.25 (P)									
			0.5 (P)									
▽			2.0 (P)	1.74	22	101	45	15	30			Stiff tan and light gray SILTY CLAY (CL)
	10		2.5 (P)									
			2.5 (P)									
	15		2.5 (P)									
			2.0 (P)									
			2.5 (P)	2.49	23	101						Very stiff light gray and brown CLAY (CH)
	20		2.0 (P)									
			1.5 (P)									
	25		2.5 (P)									
			1.5 (P)									
			2.5 (P)	2.92	26	98	58	16	42			
	30		2.5 (P)									
			2.0 (P)									
	35		1.75 (P)									
			2.0 (P)									Stiff tan and gray CLAY (CH) w/silt seams and lenses
			2.5 (P)									
	40											

Continued Next Page

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 100 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

t: Unconsolidated, Undrained Triaxial Compression Test
t1: Lateral Pressure = 18.6 psi
t2: Lateral Pressure = 38.5 psi

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/06

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-31

STE
Soil Testing Engineers, Inc.
Sheet 2 of 3

CDM
New Orleans, LA

File:	04-3010
Date:	09/08/04
Logged by:	C. Rowbatham
Driller:	Triangle Resources
Rig:	Ardco K-1000

Location: Latitude 30° 08' 28.6"
Longitude 90° 52' 03.5"
Surface Elevation: 5.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.25 (P)	1.03t1	32	86						Stiff tan and gray CLAY (CH) w/silt seams and lenses
			2.0 (P)									
	45		2.0 (P)									
			2.5 (P)									
			1.75 (P)	1.40	33	86	76	25	51			
	50		2.75 (P)									
			2.25 (P)									
	55		1.5 (P)									
			2.0 (P)									Very stiff light gray CLAY (CH) w/silt seams
			2.5 (P)	3.49	23	101						
	60		2.5 (P)									
			3.5 (P)									
	65		2.5 (P)									
			2.0 (P)	5.21m	25	101	58	20	38			Hard bluish-gray CLAY (CH) w/silt pockets
	70											
			2.0 (P)									
	75											
			1.0 (P)	2.58t2	23	102						Loose to medium dense tan and gray CLAYEY SAND (SC)
	80											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 100 ft.	m: Machine Limit
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-31

STE
Soil Testing Engineers, Inc.
Sheet 3 of 3

File: 04-3010
Date: 09/08/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.6"
Longitude 90° 52' 03.5"
Surface Elevation: 5.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA									
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
												Loose to medium dense tan and gray CLAYEY SAND (SC)
	85		2.0 (P)									
												Medium dense to dense gray and tan CLAYEY SAND (SC) w/silt seams
	90		30 b/f 11-14-16		17					GS1		
	95		24 b/f 10-12-12		25					GS2		
	100		27 b/f 9-12-15		22					GS3		
												Boring completed at 100 ft.
	105											
	110											
	115											
	120											

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 100 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

GS: Particle Size Analysis
GS1: Sand Content = 78%
GS2: Sand Content = 65%
GS3: Sand Content = 78%

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/28/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-32

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 08/26/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.5"
Longitude 90° 51' 58.4"
Surface Elevation: 5.1 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.0 (P)									Medium stiff tan and gray CLAY (CH) w/silt seams and organic matter
			2.0 (P)	0.78	33	84	86	21	65			
	5		2.5 (P)									
▽			2.5 (P)	0.92t	25	98						
			2.0 (P)									
	10		2.25 (P)									
			2.5 (P)									Stiff light gray and tan CLAY (CH)
	15		2.25 (P)	1.66	23	99	61	17	44			
			3.0 (P)									
			3.5 (P)									
	20		3.5 (P)									
			3.25 (P)	2.78	24	99						Very stiff light gray and tan CLAY (CH)
	25		3.5 (P)									
			4.0 (P)									
			2.0 (P)									
	30		2.25 (P)									Stiff light gray CLAY (CH) w/organics
			2.5 (P)	1.59	27	94	53	21	32			
	35		2.75 (P)									
			1.75 (P)									
			2.5 (P)									
	40											

Continued Next Page

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

t: Unconsolidated, Undrained Triaxial Compression Test
Lateral Pressure = 6.0 psi

Strata Boundaries May Not Be Exact

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-32

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 08/26/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.5"
Longitude 90° 51' 58.4"
Surface Elevation: 5.1 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.0 (P)									Stiff light gray CLAY (CH) w/organics
			3.5 (P)	1.46	41	80						
	45		2.75 (P)									
			3.25 (P)									
			3.0 (P)									Very stiff light gray and tan CLAY (CH) w/silt and sand seams
	50		3.25 (P)									
			3.5 (P)	2.99	22	106	47	17	30			
	55		3.0 (P)									
			2.5 (P)									
			2.0 (P)									Stiff gray CLAY (CH)
	60		3.0 (P)									
			2.75 (P)	1.29	41	79						
	65		3.25 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/28/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-34

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/07/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 24.1"
Longitude 90° 52' 03.5"
Surface Elevation: 4.8 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.5 (P)									Medium stiff tan and gray CLAY (CH) w/organic matter and silt seams
			2.0 (P)									
	5		2.0 (P)									
▽			1.5 (P)	0.85	32	87	53	20	33			
			2.0 (P)									
	10		3.0 (P)									Stiff tan and light gray CLAY (CH) w/silt seams and organic matter
			3.5 (P)									
	15		3.0 (P)									
			2.5 (P)	1.85	24	106						
			2.5 (P)									
	20		2.5 (P)									
			3.0 (P)									
	25		3.0 (P)									
			2.5 (P)									Stiff light gray and tan CLAY (CH) w/silt seams and sand lenses
			2.75 (P)	1.44	28	92	58	18	40			
	30		3.0 (P)									
			3.5 (P)									
	35		3.0 (P)									
			2.5 (P)									
			3.25 (P)	1.29	39	82						
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-34

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/07/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 24.1"
Longitude 90° 52' 03.5"
Surface Elevation: 4.8 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.5 (P)									Stiff light gray and tan CLAY (CH) w/silt seams and sand lenses
			2.25 (P)									
	45		2.5 (P)									
			3.5 (P)									
			3.5 (P)	1.63	38	82	71	23	48			
	50		3.5 (P)									
			2.25 (P)									
	55		2.5 (P)									
			3.75 (P)									Very stiff bluish-gray CLAY (CH) w/silt seams
			4.0 (P)	3.24	26	98						
	60		4.0 (P)									
			4.0 (P)									
	65		4.0 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method	
	Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-5

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/14/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 32.8"
Longitude 90° 51' 32.8"
Surface Elevation: 2.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.5 (P)									Medium stiff gray CLAY (CH) w/organic matter
			1.0 (P)									
	5		1.0 (P)	0.55	45	73	83	30	53			
▽			1.0 (P)									
			1.0 (P)									Medium stiff light gray and tan CLAY (CH) w/silt seams
	10		1.0 (P)									
			2.5 (P)									
	15		1.5 (P)	0.58	32	90						
			1.5 (P)									Stiff greenish-gray and tan CLAY (CH)
			2.75 (P)									
	20		2.5 (P)									
			2.5 (P)									
	25		2.5 (P)	1.88	24	99	59	20	39			
			2.5 (P)									
			2.5 (P)									
	30		3.0 (P)									
			2.0 (P)									
	35		3.5 (P)	1.01s 1.64r	34	86 86						
			3.25 (P)		30 32	90 94	73	24	49	Kv Kh		
			2.75 (P)									
	40											

Continued Next Page

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

s: Slickensided Failure
r: Remolded Strength
Kv: Vertical Permeability = 7.0 x 10(-9) cm/sec
Kh: Horizontal Permeability = 4.4 x 10(-9) cm/sec

Strata Boundaries May Not Be Exact

LOG01_043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-5

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/14/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 32.8"
Longitude 90° 51' 32.8"
Surface Elevation: 2.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.0 (P)									Stiff greenish-gray and tan CLAY (CH)
			1.25 (P)									
	45		3.0 (P)	1.67	31	88	66	25	41			
			3.0 (P)									
			2.25 (P)									
	50		2.5 (P)									
			2.25 (P)									
	55		2.0 (P)	1.70	36	82						
			1.75 (P)									Stiff greenish-gray and tan SILTY CLAY (CL) w/sand layers
			2.0 (P)									
	60		1.5 (P)									
			1.5 (P)									
	65		1.5 (P)		26	93	24	24	0			
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-9

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 08/25/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.5"
Longitude 90° 51' 48.2"
Surface Elevation: 2.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.5 (P)									Medium stiff gray and brown CLAY (CH) w/organic matter and wood
			1.75 (P)									
	5		1.5 (P)	0.53	50	68	113	35	78			
			1.75 (P)									
▽			2.0 (P)	0.80	27	93						
	10		2.75 (P)									Very stiff tan and light gray CLAY (CH) w/silt seams
			3.5 (P)									
	15		3.75 (P)									
			3.5 (P)									
			3.5 (P)	2.76	21	104	48	14	34			
	20		3.25 (P)									Stiff light gray and tan CLAY (CH) w/silt seams and organic matter
			4.25 (P)									
	25		4.0 (P)									
			3.0 (P)									
			4.25 (P)	1.75	29	94						
	30		2.25 (P)									
			2.5 (P)									
	35		3.5 (P)		32 36	86 86	81	28	53	Kv Kh		
			2.5 (P)									
			3.5 (P)	1.25s 1.80r	38	81 82	99	28	71			
	40											

Continued Next Page

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

Kv: Vertical Permeability = 7.3 x 10(-9) cm/sec
Kh: Horizontal Permeability = 3.5 x 10(-9) cm/sec
s: Slickensided Failure
r: Remolded Strength

Strata Boundaries May Not Be Exact

LOG01_043010.GPJ LOG01.GDT 04/29/05

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-9

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 08/25/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.5"
Longitude 90° 51' 48.2"
Surface Elevation: 2.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.25 (P)									Stiff light gray and tan CLAY (CH) w/silt seams and organic matter
			3.0 (P)									
	45		3.25 (P)									
			3.5 (P)									Very stiff light gray and tan CLAY (CH) w/organic matter and silt pockets
			3.75 (P)	2.84	34	88						
	50		4.0 (P)									
			3.5 (P)									
	55		3.5 (P)									
			2.5 (P)									Stiff tan and light gray SILTY CLAY (CL) w/organic matter and sand seams
			3.0 (P)	1.55	28	95	44	20	24			
	60		3.5 (P)									
			3.5 (P)									
	65		4.0 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 04/29/05

APPENDIX O

GEOTECHNICAL REPORT

GEOTECHNICAL INVESTIGATION
SOLID WASTE DISPOSAL FACILITY NO. D-2-0532
SORRENTO, LOUISIANA

for

BFI/COLONIAL LANDFILL
SORRENTO, LOUISIANA

PROJECT NO. 82-530

November 15, 1982

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GEOTECHNICAL INVESTIGATION
SOLID WASTE DISPOSAL FACILITY NO. D-2-0532

BFI/COLONIAL LANDFILL
SORRENTO, LOUISIANA

INTRODUCTION

A geotechnical investigation was conducted at the Colonial Landfill, Inc. Solid Waste Disposal Facility, Sorrento, Louisiana. The scope of the work was planned in accordance with requirements set forth in the State of Louisiana, Solid Waste Rules and Regulations, Section 6.4.3. and 7.3. Prior to this investigation, a preliminary subsurface exploration, sampling and testing was made in connection with the State of Louisiana Solid Waste Site Suitability Study. This work was performed by Gulf Drilling Co., Inc. for the Department of Natural Resources. This data has been incorporated into this report and the borings made were renumbered in this report as B-3, B-9, B-10 and B-12.

The number of exploration borings and the number and locations of monitor wells were briefly discussed with Mr. Narendra Dave and Mr. John Koury of the Department of Natural Resources. The initial boring and well locations were planned in a uniform spacing. However, due to inclement weather and access problems, the locations of some of these borings were moved. The actual locations were later checked by the aid of an aerial photograph of the site.

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The work performed consisted of drilling and sampling 30 borings, installation of seven (7) initial monitor wells, and four (4) additional wells, laboratory testing and analyses. The results of this investigative effort and subsequent soil borings are contained in this report.

FIELD EXPLORATION

Fourty-two (42) borings were made throughout the site. The location of the borings are shown in Exhibit 14. The log of these borings, showing the soil stratification, groundwater level, and results of laboratory index property and permeability tests are included herein.

Twenty-six (26) of the borings were drilled to a depth of 40 feet. The remaining borings were drilled to the depth of 20 to 220 feet. Borings B-3 and B-9 were drilled to a depth of 20 feet. Borings B-1, B-2, B-18, B-24, and B-34 were drilled to a depth of 80 feet. Borings B-8 and B-16 were drilled to depths of 220 and 218 feet, respectively. Boring B-32 was extended to a depth of 140 feet.

Continuous undisturbed samples were obtained to a depth of 40 feet. In the interval 40 to 80 feet, undisturbed samples were obtained at 5-foot depth intervals. Below 80 feet, undisturbed samples were obtained at alternate depths and at strata changes.

Undisturbed soil samples were obtained by means of thin-wall three-inch Shelby tubes. A split spoon sampler was used for obtaining samples from the sand layers. The samples were visually classified in

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the field by a qualified soil technician. These samples were properly sealed and placed in boxes to minimize their disturbance due to handling and transportation to the laboratory. Selected samples were retained in the Shelby tubes for evaluation of their permeability properties.

GROUNDWATER MEASUREMENTS

In order to determine the depth of groundwater at the time of the field exploration(7/15/82 to 9/10/82), the auger borings were made without the addition of water until groundwater was first encountered during the drilling process. The location of groundwater first encountered and the location of groundwater after a period of 5 to 10 minutes are shown along with the logs of borings. The depth to groundwater may vary throughout the year depending on the climatic conditions. Groundwater level measurements made on 10/20/82 are shown along with the soil profiles in Exhibits 15 through 21.

LABORATORY TESTING AND RESULTS

The laboratory tests performed on soil samples consisted of moisture content, dry density, Atterberg limits, particle size analysis, compaction, unconfined compression, direct shear, and permeabiltiy. These test were performed in accordance with the following methods:

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Moisture Content

The moisture content test was conducted in accordance with the ASTM Designation D 2216. The results of the moisture content tests are presented on the boring logs.

Dry Density

The dry density of the soil samples was evaluated by the drive-cylinder method, ASTM Designation D 2937. The dry density of the soil samples are also shown on the boring logs.

Atterberg Limits

The liquid limit test was performed in accordance with the ASTM Designation D 423. The plastic limit test was performed according to ASTM Designation D 424. The values of liquid limit and plasticity index of the samples tested are shown along with the boring logs. These data have been plotted on a Plasticity Chart to simplify their evaluation and shown as Figures 1, 2, and 3.

Particle Size Analysis

Sieve and hydrometer analyses were performed for determination of the particle size distribution of the soil samples. These tests were performed in accordance wtih the ASTM Designation D 422. The particle size distribution test results are shown in Figures 7 to 22.

Compaction Test

Modified Proctor compaction tests were performed representative samples of clay (CH) and silty clay (CL). The tests were performed according to the ASTM Designation D 1557. Th results of compaction tests are shown in Figure 6.

Unconfined Compression Test

Unconfined compression test was performed on 36 samples for various depths. The results are shown in Figures 4 and 5.

Direct Shear Test

Undisturbed soil specimens were subjected to normal stresses corresponding to their field overburden stress level in a direct shear device. Shear tests were conducted. The specimens were fully consolidated under the applied normal stress before shearing. The results of direct shear are presented in Figures 4 and 5.

Permeability Test

Constant head permeability test was performed on undisturbed soil samples while still in the Shelby tube. The soil specimens were allowed to saturate in the permeameter under sufficient hydraulic gradient. The permeability test was performed by allowing water to flow through the samples. The measurements for evaluation

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of the coefficient of permeability were made after the water flow through the samples reached a steady state condition. The head under which permeability values are reported varied for different samples. For samples with very low permeability, higher heads had to be used in order to collect adequate flow for accurate determinations. The results of permeability tests are presented in the attached table and on the boring logs.

DISCUSSION OF THE RESULTS

The results of field measurements and laboratory tests were employed in preparing Log of Soil Borings, Soil Profiles of the site are shown in Exhibits 15 through 21.

Referring to the above presentations, it is apparent that the on-site soils predominately consist of medium stiff to very stiff clay (CH) and silty clay (CL). The depth of these soils range from 205 to 215 feet as shown in log of borings B-8 and B-16. Thin lenses or pockets of isolated clayey silt were encountered at alternate depths in some of the borings. Very dense silty sand or gravelly sand underlines the clay deposits below a depth of 205 to 215 feet. In Boring B-32,however, a layer of silty sand and sand was encountered in the interval 65 to 124 feet. This deposit is underlain by very stiff silty clay and clay to the explored depth of 140 feet.

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Laboratory tests were performed on samples from various depths to represent the properties of all the soils encountered. Results of permeability tests indicated that the coefficient of permeability of most of the soil samples was in the range of 10^{-9} to 10^{-7} cm/sec. This indicates that these soils are of low to very low permeability property.

Stability analysis based on the results of direct shear and unconfined compression tests indicate that the on-site soils can safely be excavated to depths of 25 feet at a slope of 0.5 on 1.

Seepage Analysis; A study of all permeability data was made and representative values were obtained for the site. The effective vertical permeability is found to be on the order of 3 X 10^{-8} cm/sec. When an area is completed, groundwater in the clay and fill will stabilize and its maximum level may not exceed the natural ground surface level (Elev. 2 to 3 MSL). The aquifer(s) underlying the site (Exhibit 12) show that the piezometric surfaces are at elevations higher than the ground surface. This indicates that there will be no downward gradient or flow. However, if the underlying sand is at zero pressure (unrealistic assumption), it would take 820 years for water to travel to 65 feet (Boring B-32) or 2360 years to 205 feet (Boring B-8 and B-16). Horizontal flow at the highest permeability (assumed 10^{-5} to 10^{-6} cm/sec.) through the buffer zone would take 10,000 to 20,000 years.

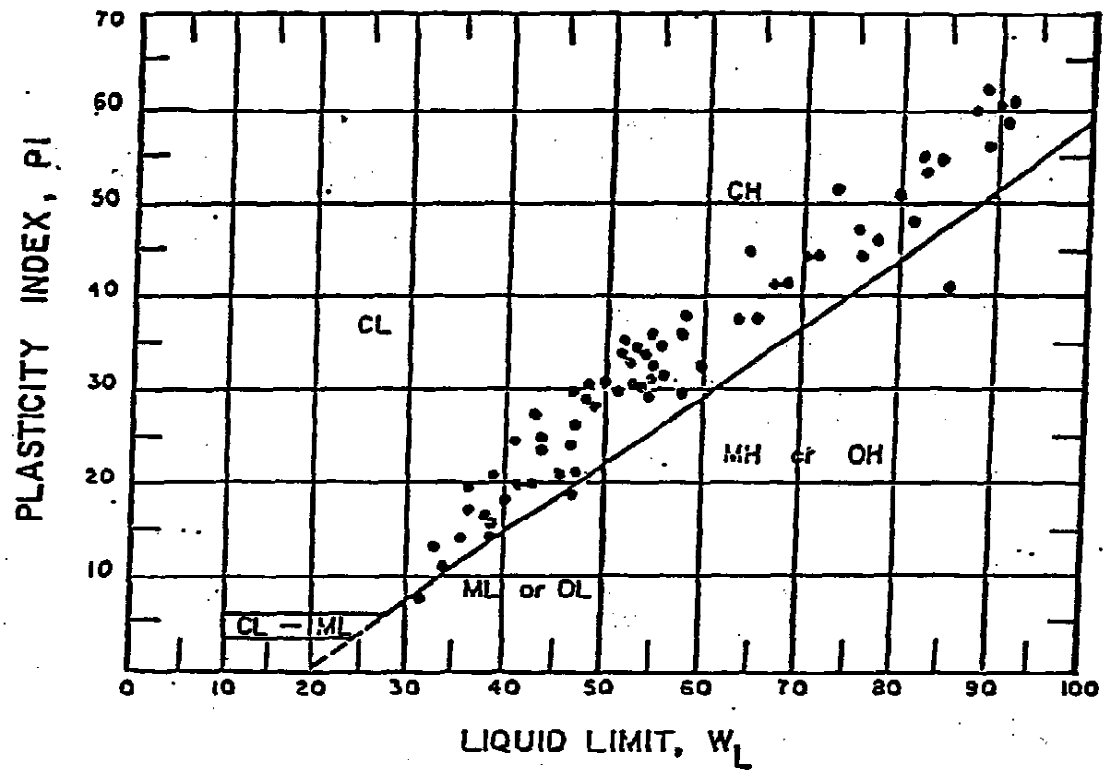
PERMEABILITY TEST RESULTS

BORING NO.	DEPTH FEET	DRY DENSITY pcf	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	k cm/sec
B-1	14-15	100	28	37	15	5.8×10^{-7}
	33-34	105	26	56	35	5.4×10^{-9}
B-2	22-23	99	26	51	34	1.1×10^{-9}
	34-35	89	35	64	38	1.6×10^{-9}
B-3	16-17	107	24	39	21	4.0×10^{-8}
B-4	16-17	106	21	56	36	7.5×10^{-8}
	26-27	97	28	42	20	7.0×10^{-8}
B-5	10-11	107	21	41	25	1.4×10^{-7}
B-6	8-9	98	27	47	27	3.0×10^{-7}
	18-19	91	31	50	33	1.5×10^{-7}
B-7	16-17	95	30	51	30	1.1×10^{-8}
	34-35	83	39	68	42	3.4×10^{-8}
B-8	21-22	105	24	47	19	1.4×10^{-6}
	43-44	97	26	40	18	4.1×10^{-7}
B-9	8-9	97	32	39	14	1.4×10^{-7}
B-10	17-18	99	30	71	45	2.0×10^{-9}
B-11	5-6	93	28	43	24	8.9×10^{-8}
	22-23	87	33	69	47	3.8×10^{-9}
B-12	33-35	106	26	37	16	3.2×10^{-6}
B-13	15-16	105	23	32	14	4.0×10^{-7}
	35-36	99	24	31	11	2.8×10^{-9}
B-14	23-24	86	34	38	14	4.6×10^{-7}
	39-40	90	31	43	21	1.0×10^{-7}
B-15	6-7	99	26	37	15	6.2×10^{-7}
B-16	39-40	83	35	84	52	4.4×10^{-8}
	68-69	103	23	33	13	4.4×10^{-7}
B-17	18-19	91	32	36	13	1.5×10^{-6}

PERMEABILITY TEST RESULTS
(continued)

BORING NO.	DEPTH FEET	DRY DENSITY pcf	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	k cm/
B-18	32-33	96	27	35	24	2.8 X
	48-49	80	40	57	39	1.0 X
B-19	19-20	101	27	34	12	4.3 X
	28-29	90	35	73	45	6.7 X
B-20	20-21	93	32	57	29	3.8 X
	28-29	95	27	45	27	8.0 X
B-21	14-15	106	22	37	18	3.1 X
	24-25	93	31	64	41	1.4 X
B-22	28-29	95	29	51	28	5.4 X 1
	38-39	94	31	40	18	2.4 X 1
B-23	8-9	98	27	35	12	3.5 X 1
B-24	23-24	104	25	55	37	2.7 X 1
	38-39	107	22	59	35	7.8 X 1
B-25	33-34	94	31	67	38	2.5 X 1
B-26	23-24	105	21	42	26	1.6 X 1
B-27	13-14	101	23	43	26	5.0 X 1
B-28	36-37	92	31	74	46	2.1 X 10
B-29	13-14	107	22	38	19	4.0 X 10
B-30	12-13	105	22	54	35	9.3 X 10
	38-39	102	21	81	53	6.4 X 10
B-31	14-15	103	24	55	35	5.2 X 10
B-32	34-35	95	28	67	39	7.5 X 10
	48-49	80	39	68	44	1.5 X 10
B-33	11-12	108	21	53	34	5.0 X 10
B-34	33-34	94	32	68	43	1.5 X 10
	53-54	97	26	55	35	8.9 X 10

PLASTICITY CHART



COLONIAL LANDFILL, INC.

SORRENTO, LOUISIANA

Drawn by		11/29/82	Proj. No. 82-530
Engineer		11/29/82	BORINGS B-1 TO B-10
Checked by		11/29/82	Fig. No. 1

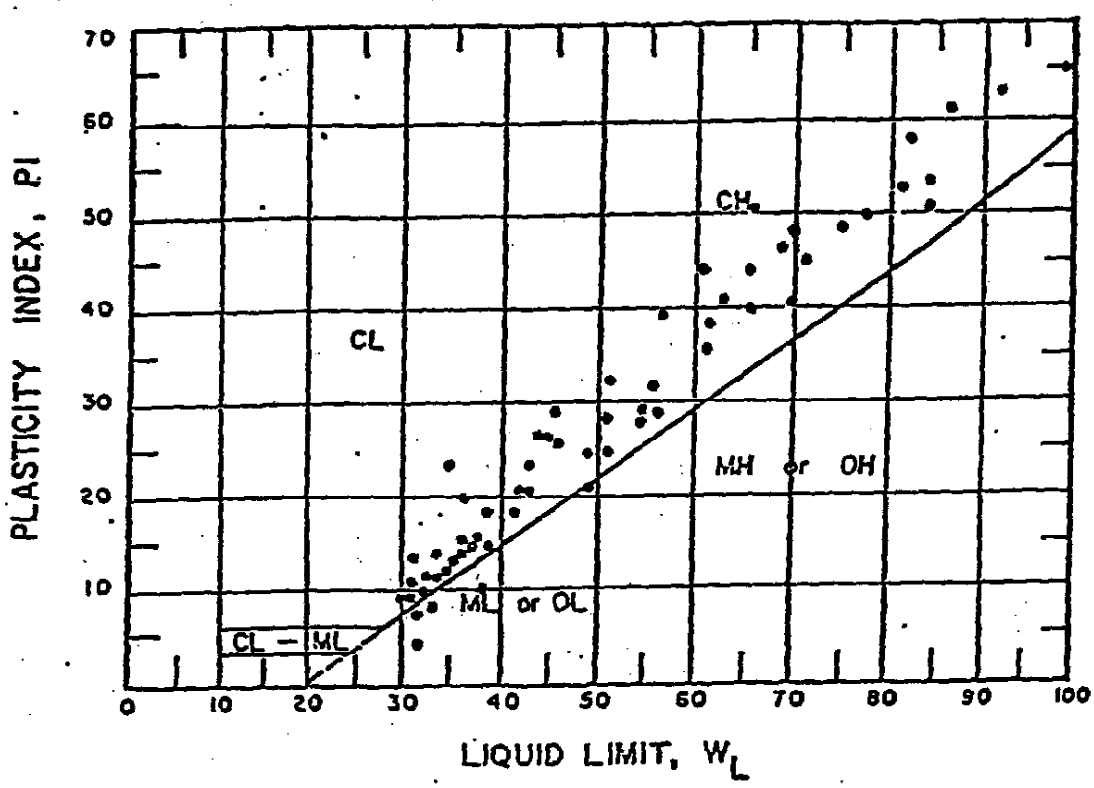
GID G

Gulf Drilling Co., Inc.

Geotechnical Investigations

822 Neosho Ave. Baton Rouge, La. 70802

PLASTICITY CHART



COLONIAL LANDFILL, INC.

SORRENTO, LOUISIANA

Drawn by		11/29/82	Proj. No. 82-530
Engineer		11/29/82	BORINGS B-11 TO B-20
Checked by		11/30/82	Fig. No. 2

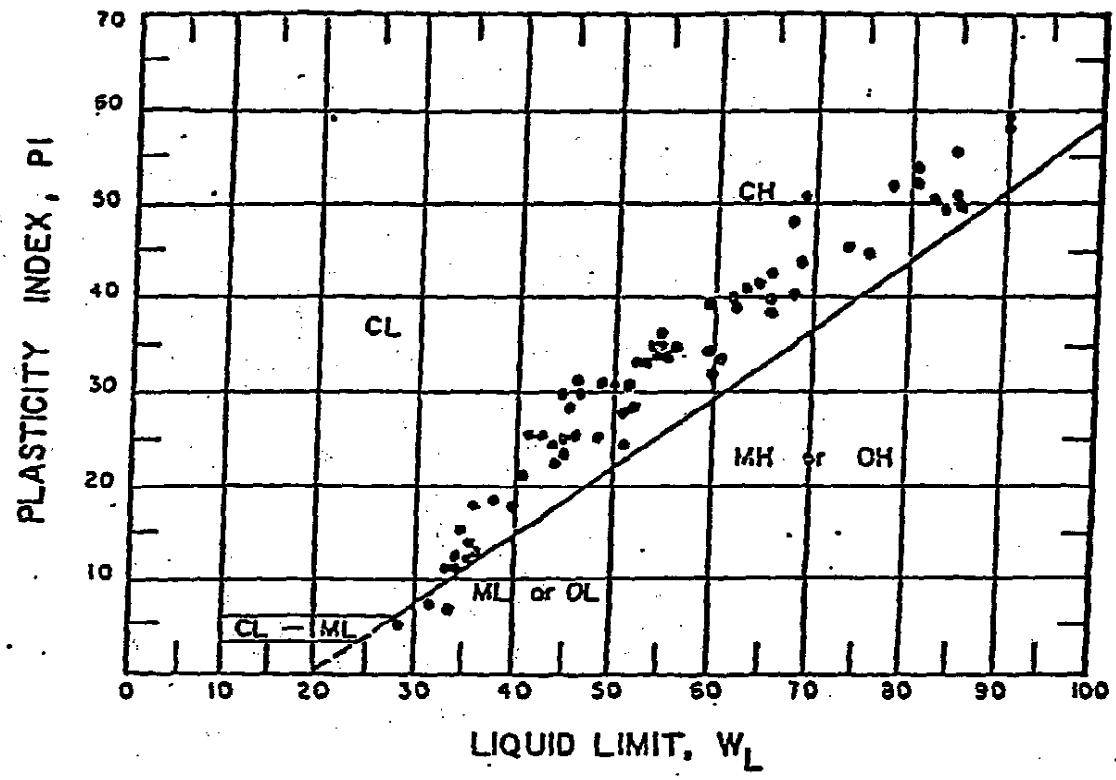
GID G

Gulf Drilling Co., In

Geotechnical Investigations

822 Neosho Ave. Baton Rouge, La. 70

PLASTICITY CHART



COLONIAL LANDFILL, INC.

SORRENTO, LOUISIANA

Drawn by	HSL	11/29/82	Proj. No. 82-530
Engineer	HSL	11/29/82	BORINGS B-21 TO B-34
Checked by	[illegible]	11/30/82	Fig. No. 3

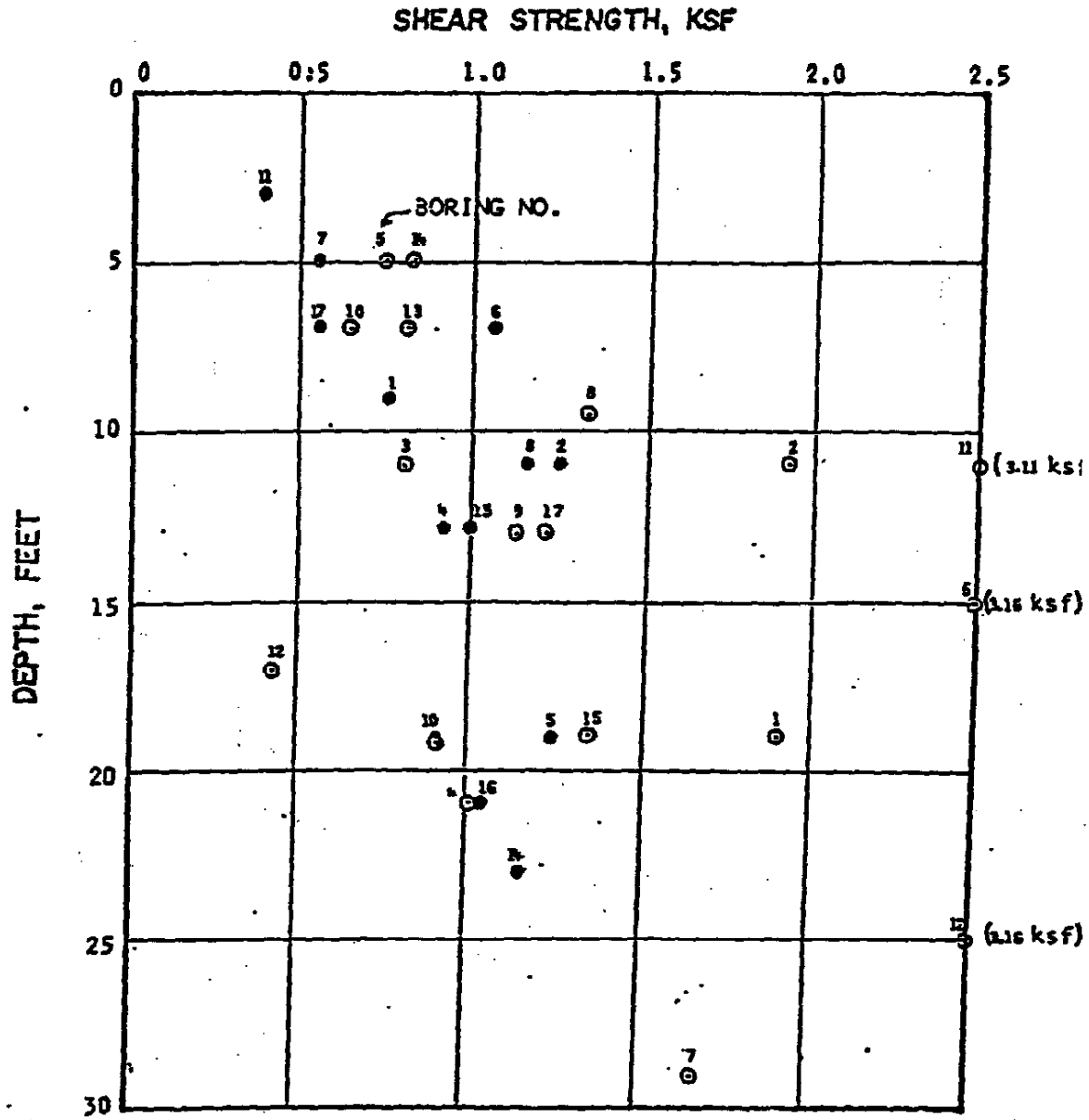
GID G

Gulf Drilling Co., Inc.

Geotechnical Investigations

822 Neosho Ave. Baton Rouge, La. 7080[illegible]

SHEAR STRENGTH



● DIRECT SHEAR TEST
⊙ UNCONFINED COMPRESSION TEST

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	[illegible]	11/29/82	Proj. No. 82-530
Engineer	[illegible]	11/29/82	BORINGS B-1 TO B-17
Checked by	[illegible]	11/30/82	Fig. No. 4

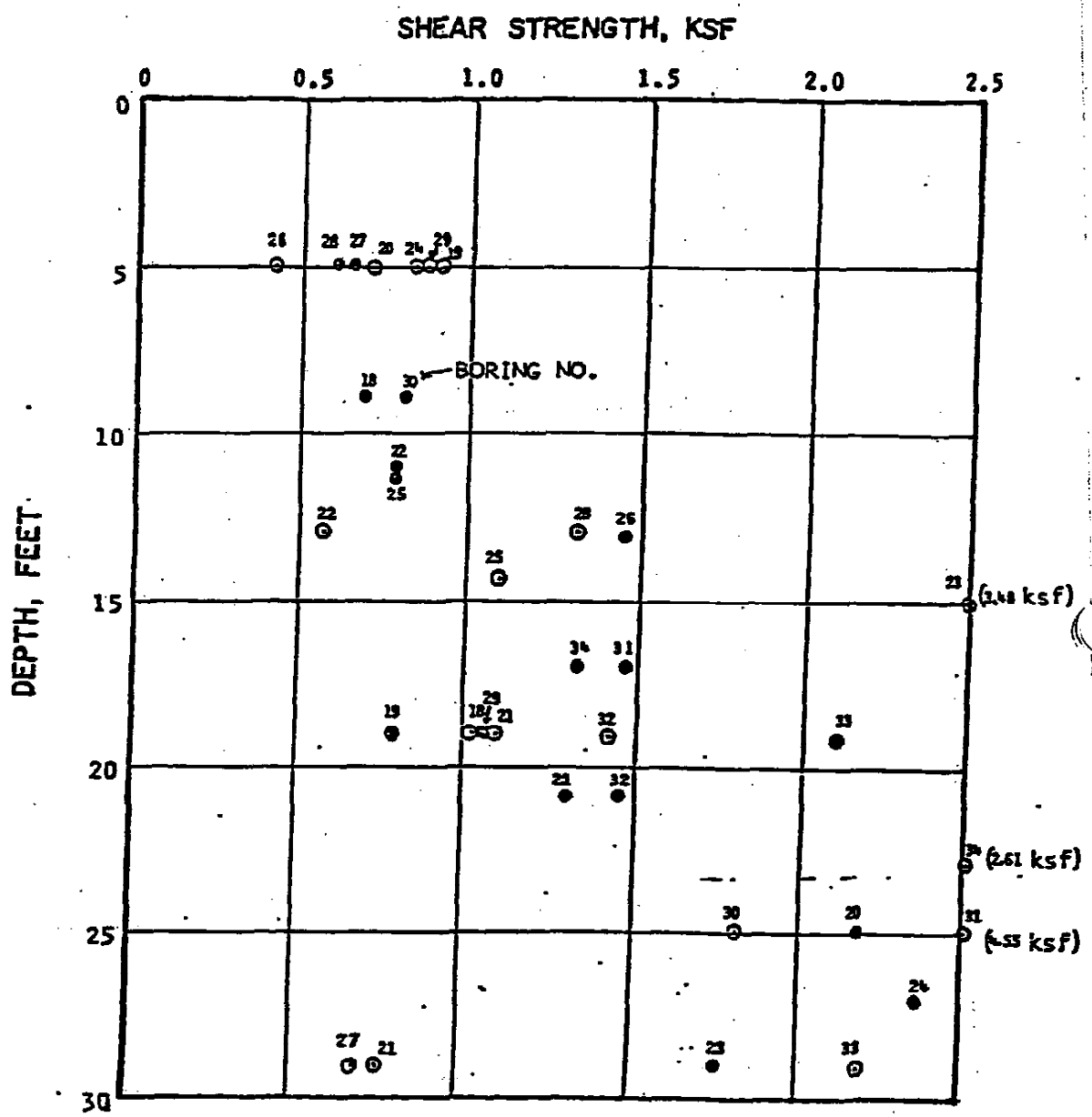
GID G

Gulf Drilling Co., Inc.

Geotechnical Investigations

[illegible] Baton Rouge, La. [illegible]

SHEAR STRENGTH



● DIRECT SHEAR TEST
⊖ UNCONFINED COMPRESSION TEST

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	ASR	11/29/82	Proj. No. 82-530
Engineer	TSL	11/29/82	BORINGS B-18 TO B-34
Checked by	[illegible]	11/30/82	Fig. No. 5

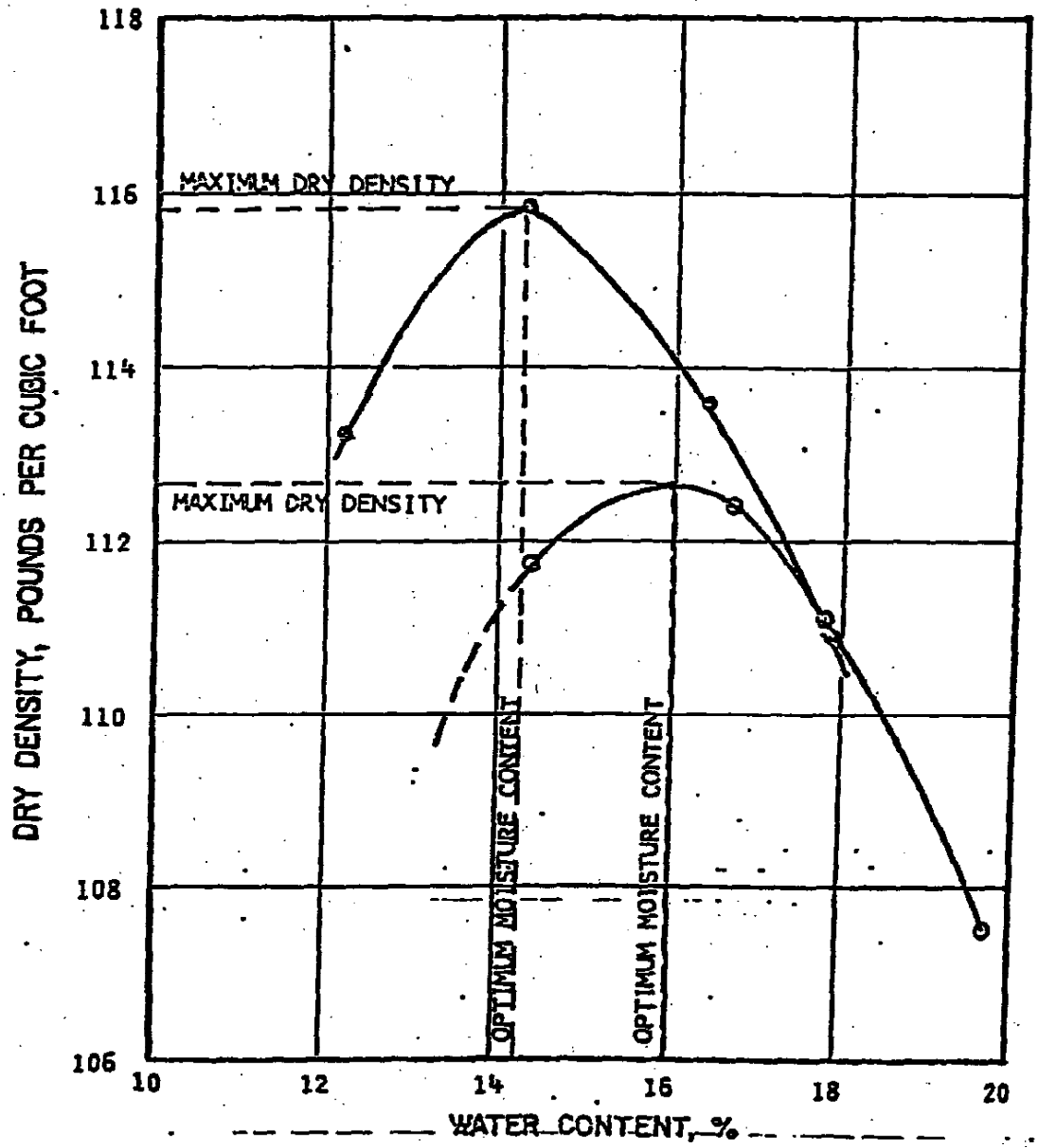
GID

Gulf Drilling Co., Inc.

Geotechnical Investigations

[illegible] Avenue, Baton Rouge, La. [illegible]

COMPACTION CHART



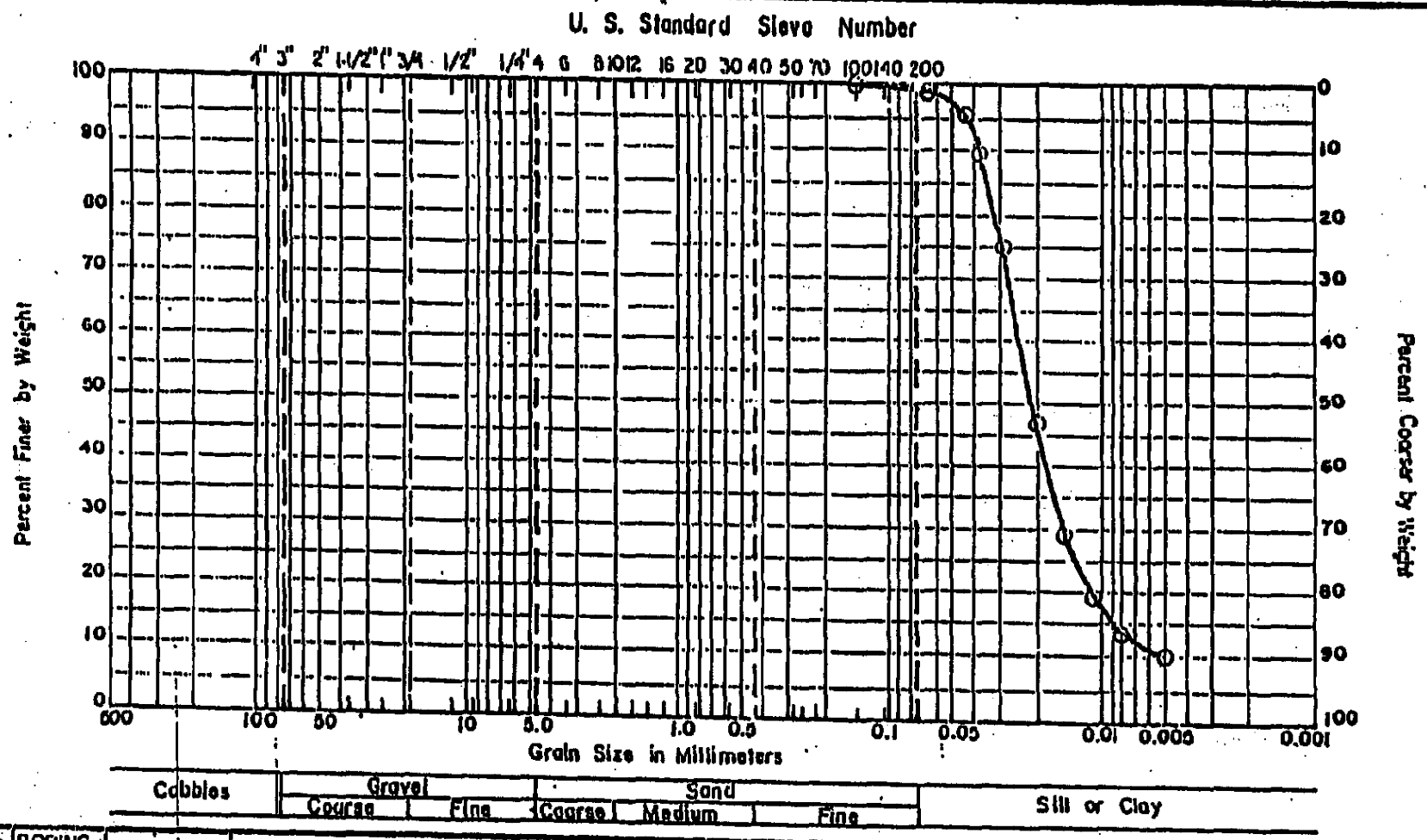
● SILTY CLAY (CL)
○ CLAY (CH)

ASTM D 698 ☐ D 1557 ☒

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	ASR	11/21/92	Proj. No. 82-530	GID G Gulf Drilling Co., Inc. Geotechnical Investigations
Engineer	ASR	11/21/92		
Checked by	[illegible]	11/24/92	Fig. No. 6	822 Nicholson Ave. Baton Rouge, La. 70[illegible]



LEGEND	BORING no.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
O	B-2	43-45	ML, CLAYEY SILT, very stiff		26		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

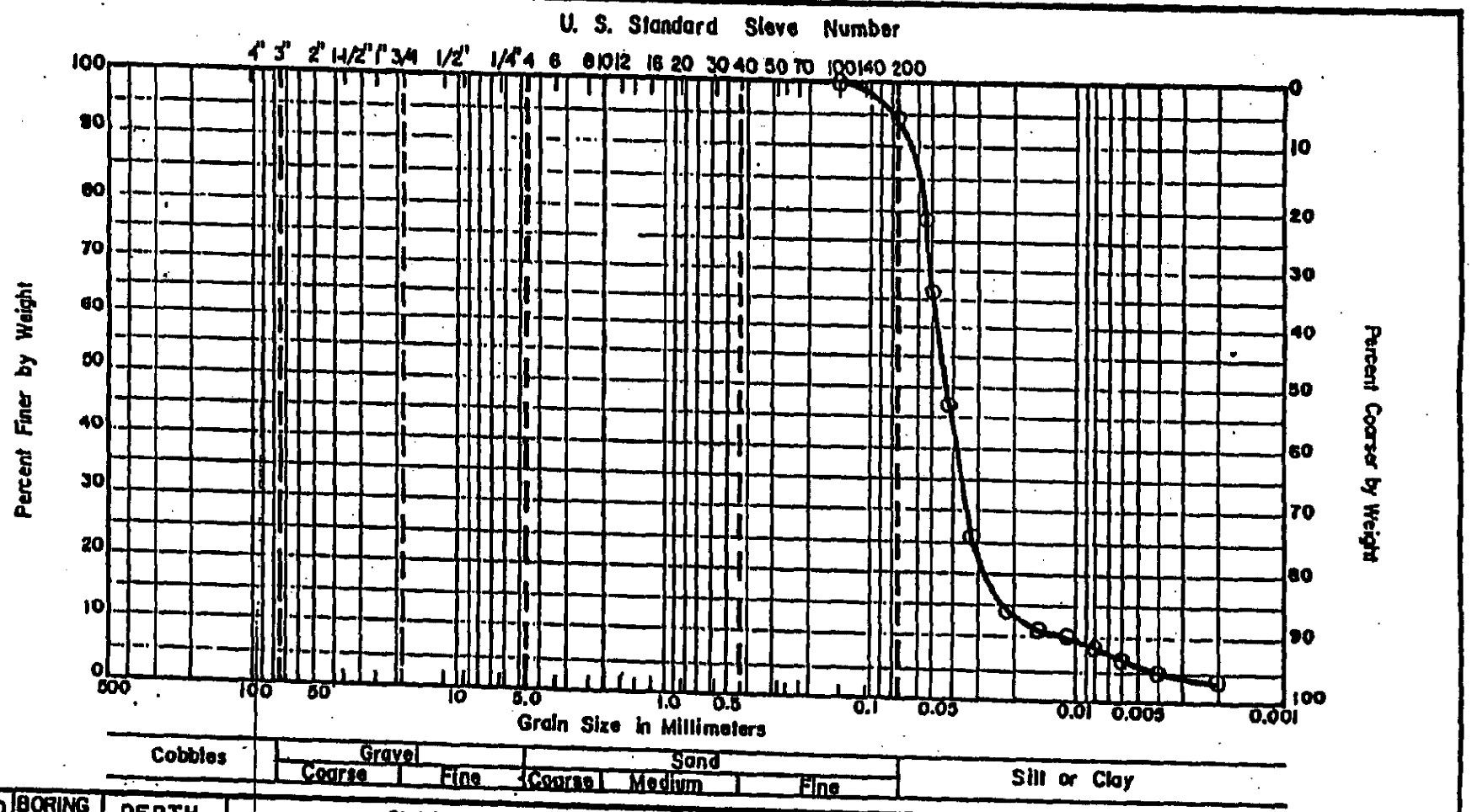
Drawn by	ASL	11/22/82	Project No. 82-530
Engineer	ASL	11/22/82	Figure No. 7
Checked			

GRADATION

GID INC

Gulf Drilling Co., Inc.

Geotechnical Investigations



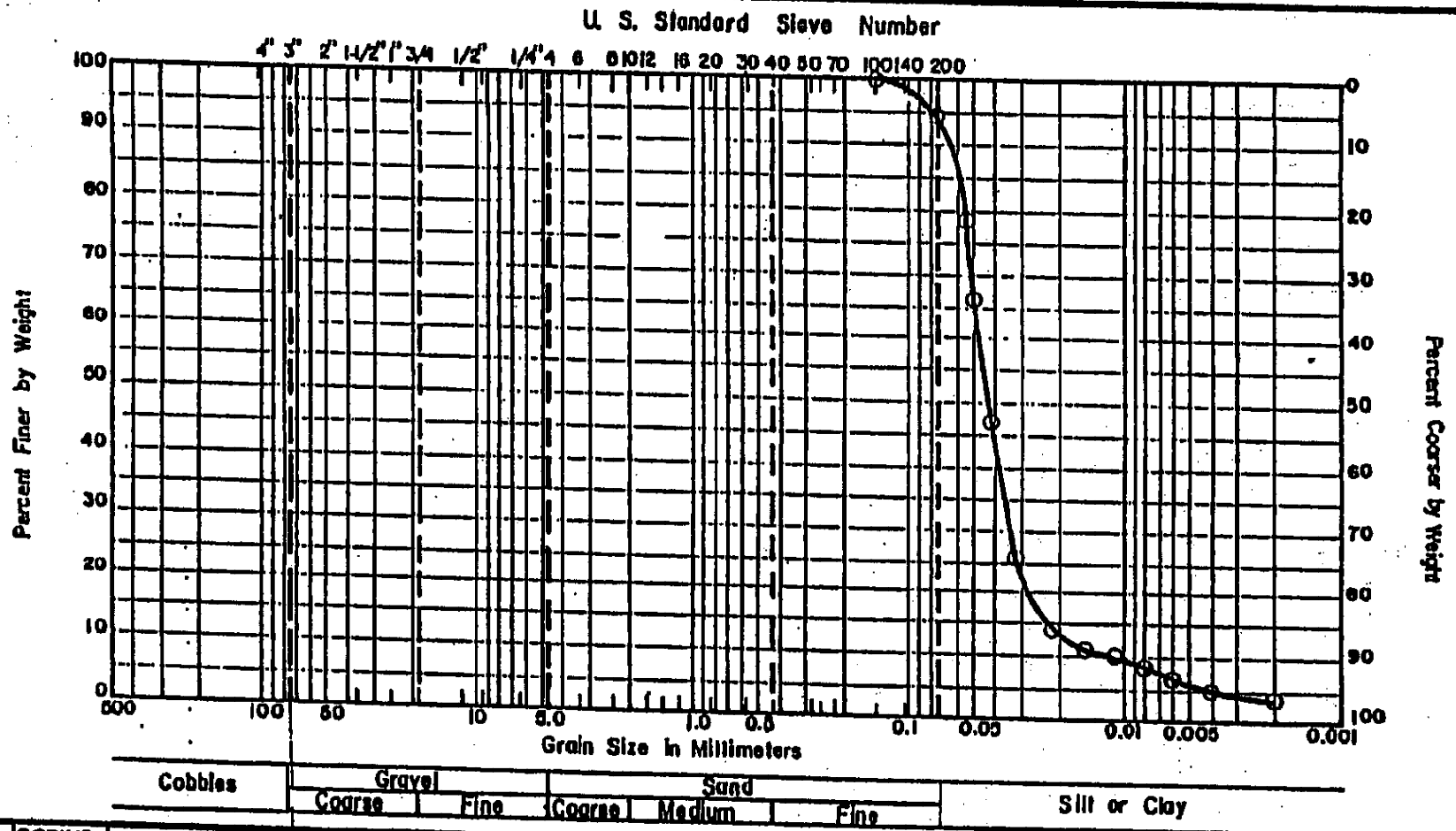
LEGEND	BORING NO.	DEPTH	CLASSIFICATION	w_L	w_n	w_P	PI
O	B-5	38-40	ML: CLAYEY SILT: medium stiff		26%		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	ASR	11/29/82	Project No. 82-530
Engineer	ASR	11/29/82	Figure No. 8
Checked by			

GID Gulf Drilling Co., Inc.



LEGEND	BORING no.	DEPTH	CLASSIFICATION	w_L	w_n	w_P	PI
O	B-5	38-40'	ML CLAYEY SILT; medium stiff		26%		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

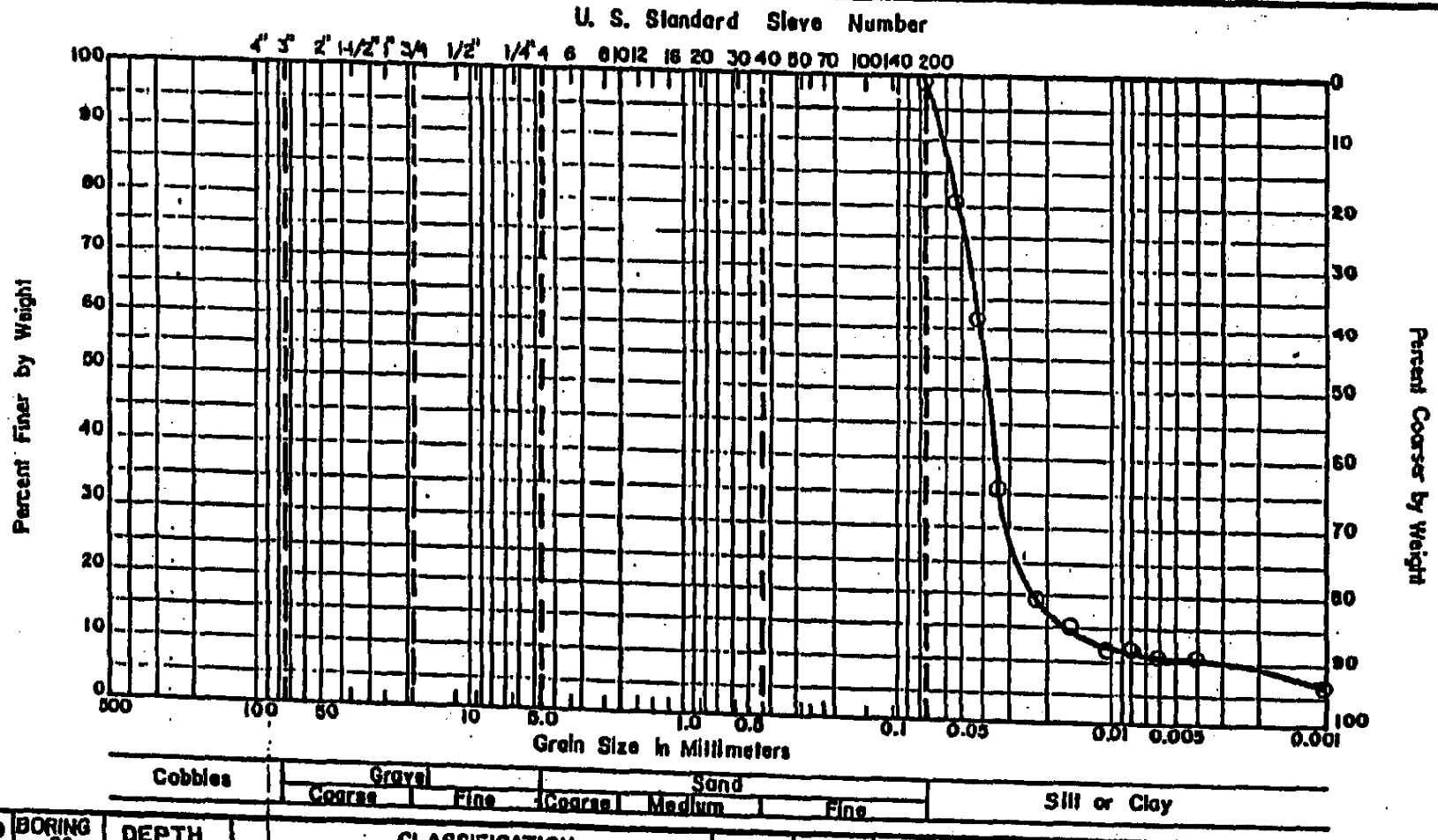
Drawn by	ASR	11/22/82	Project No. 82-530
Engineer	ASR	11/22/82	Figure No. 8
Checked by	[illegible]	11/30/82	GRADATION CURVE

GID

Gulf Drilling Co., Inc.

Geotechnical Investigations

822 Neosho Ave. Baton Rouge



LEGEND	BORING no.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
O	B-6	36-38	ML, CLAYEY SILT, soft		29		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by ASL 11/21/88 Project No. 182-530.

Engineer ASL 11/21/88 Figure No. 9

GID Gulf Drilling Co., Inc.

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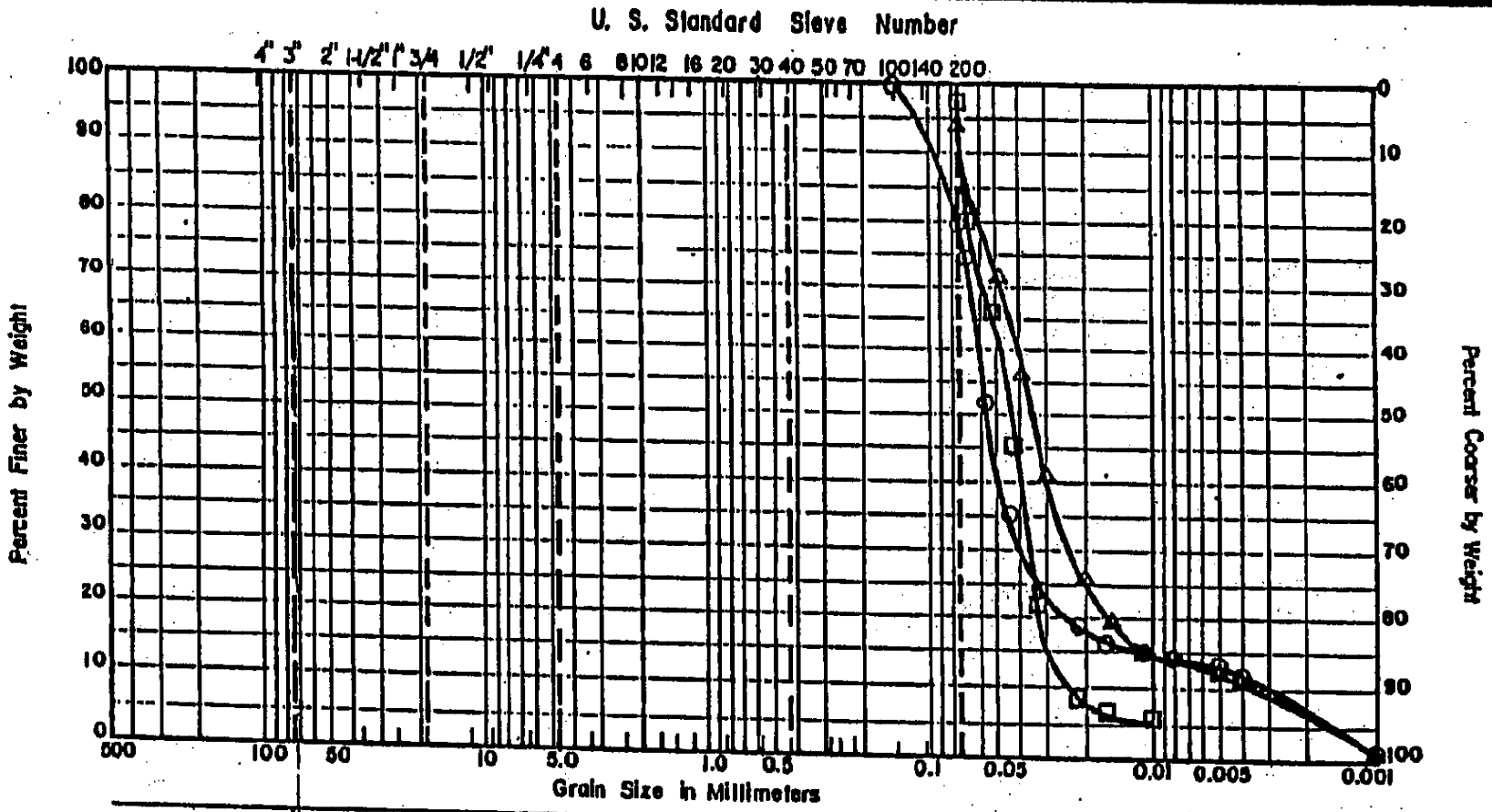


LEGEND	BORING no.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
○	B-8	58-60	ML, CLAYEY SILT, very stiff		23		
△	B-8	78-80	ML, CLAYEY SILT, stiff		25		
□	B-8	168-160	ML, SANDY SILT, dense		26		

Drawn by ASR 11/29/82

Engineer ASR 11/29/82

Checked by

Project No. 82-530

Figure No. 10

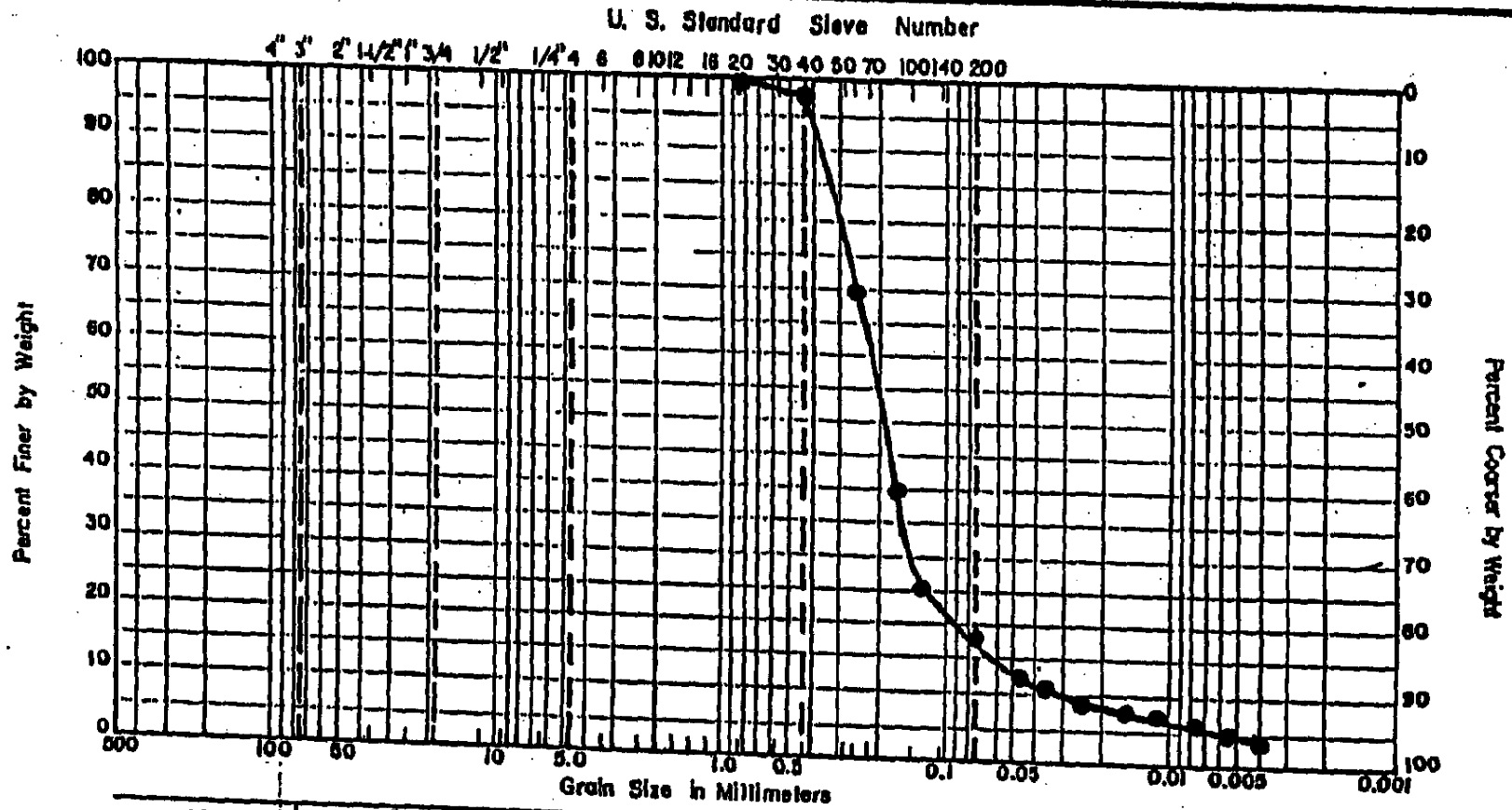
GRADATION CU

COLONIAL LANDFILL

SORRENTO, LOUISIANA

GID Gulf Drilling Co., Inc.

Geotechnical Investigat



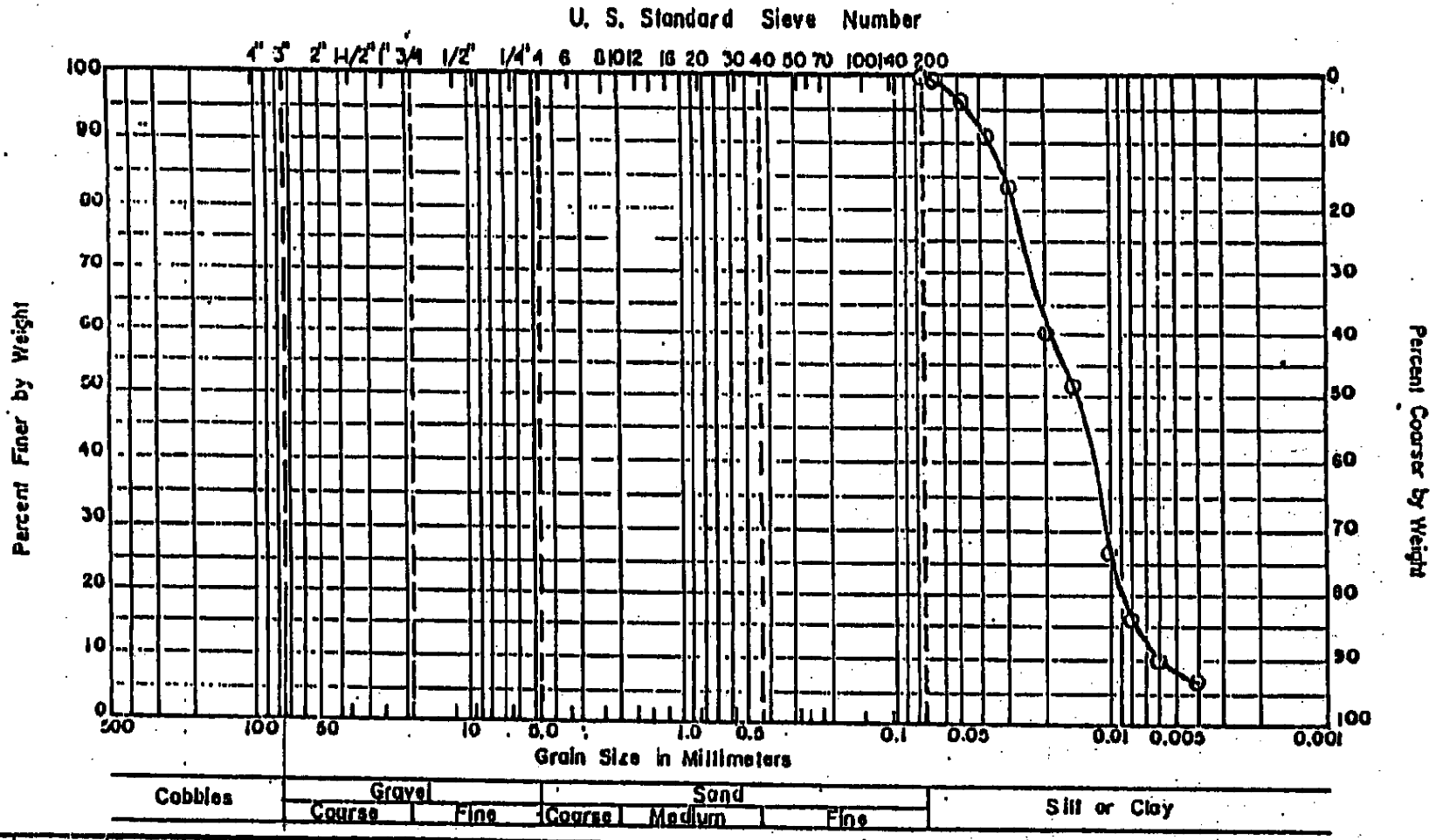
LEGEND	BORING no.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
●	B-8	218.5-220	SH. SILTY SAND, very dense		17		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	ASR	11/29/82	Project No. 82-530
Engineer	ASR	11/29/82	Figure No. 11
Checked by			

GID Gulf Drilling Co., Inc.



LEGEND	BORING no.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
O	B-15	22-24	ML CLAYEY SILT, medium stiff		35		

COLONIAL LANDFILL

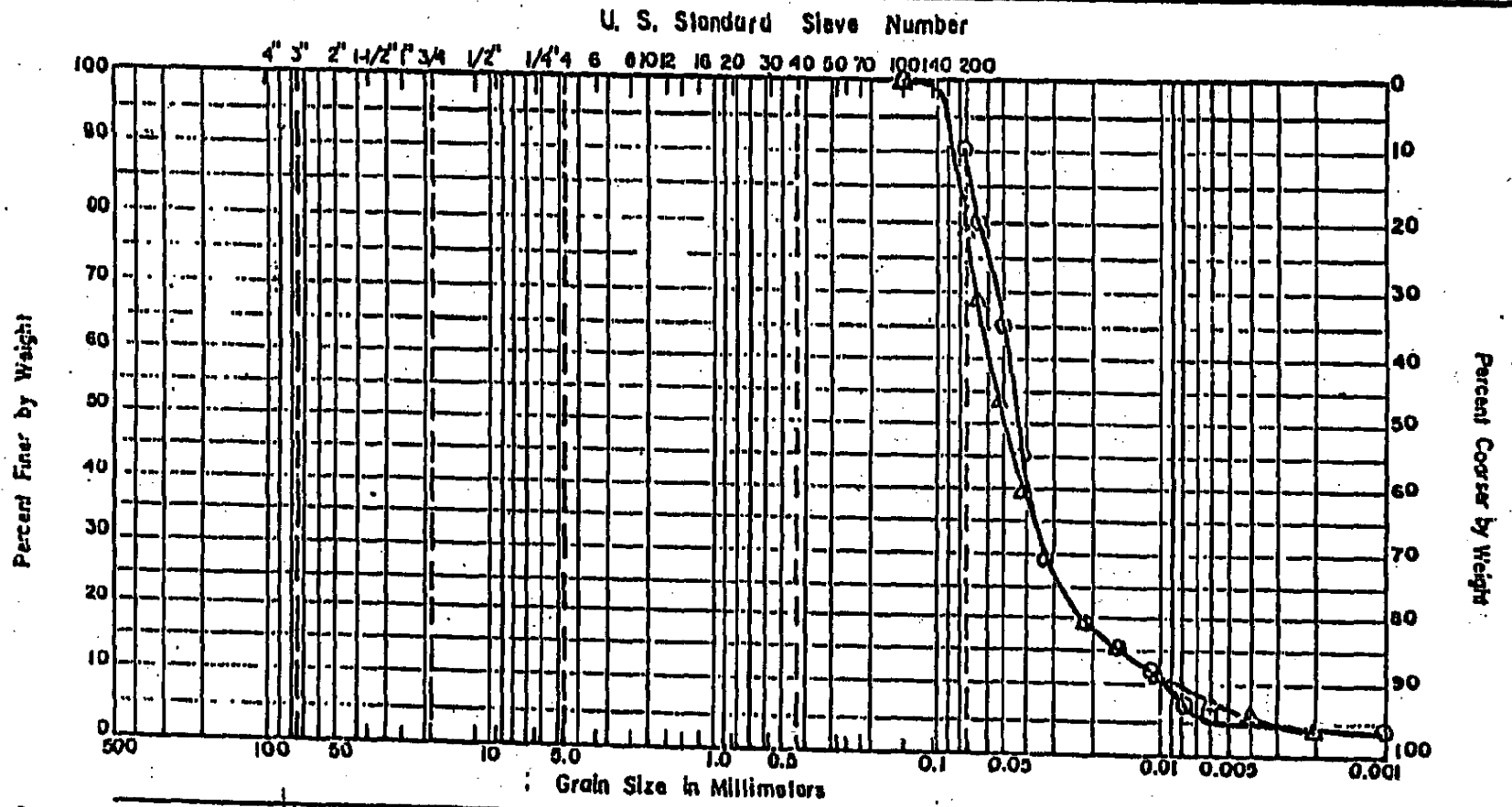
SORRENTO, LOUISIANA

Drawn by	HSL	11/29/82	Project No. 82-530
Engineer	HSL	11/29/82	Figure No. 12
Checked			GRADATION

GID INC

Gulf Drilling Co., Inc.

Geotechnical Investigations



LEGEND	BORING NO.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
O	B-16	18-20	ML CLAYEY SILT, stiff		25		
Δ	B-16	141-143	ML CLAYEY SILT, fine sand lenses, very stiff		30		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	JSR	11/19/92	Project No. 82-530
Engineer	JSR	11/19/92	Figure No. 13

Gulf Drilling Co., Inc.

Geotechnical Investigations

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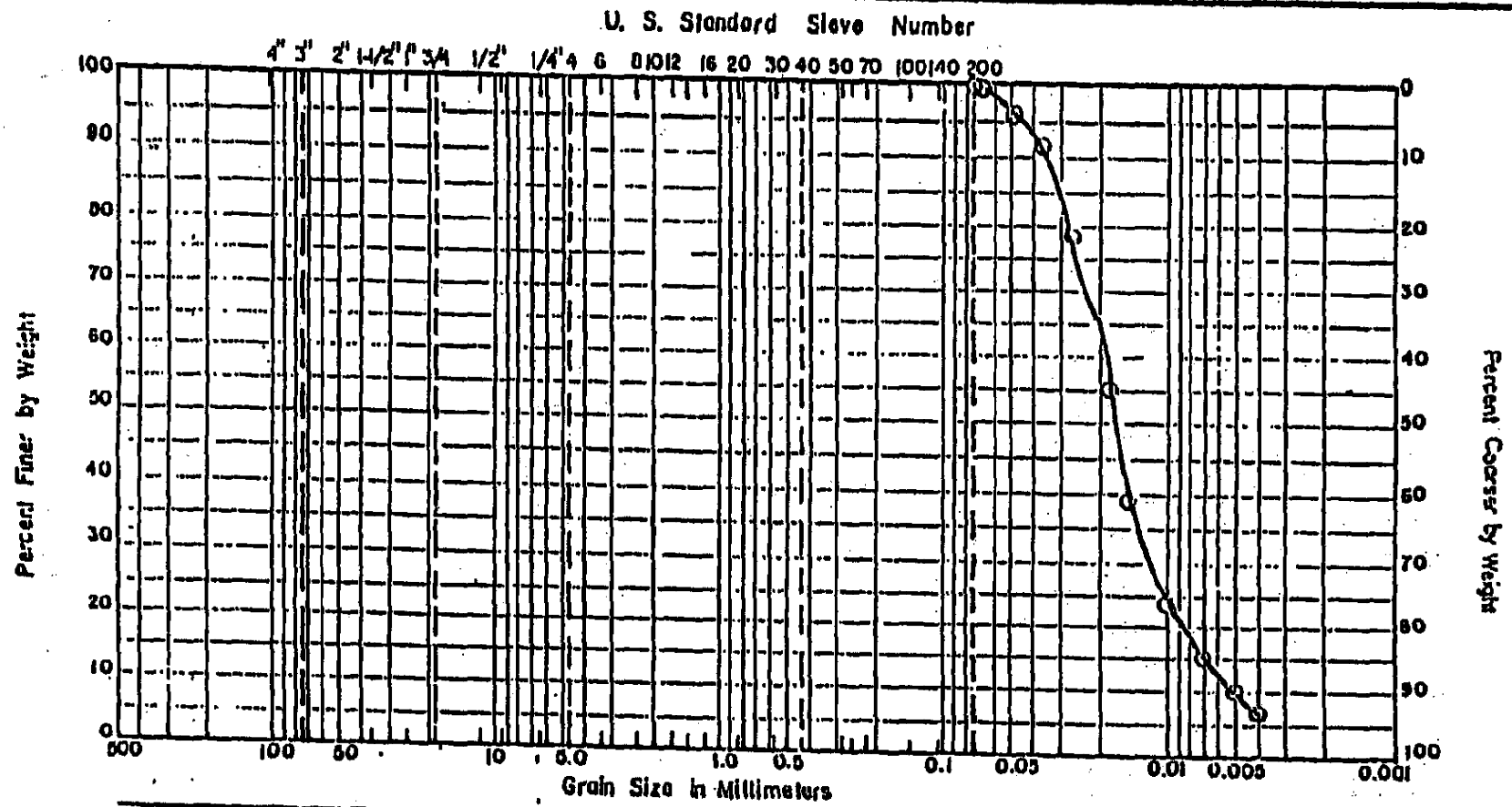

LEGEND	BORING no.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
O	B-19	34-35	ML, CLAYEY SILT, very stiff		29		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	[illegible]	11/29/82	Project No. 82-530
Engineer	[illegible]	11/29/82	Figure No. 14
Checked by	[illegible]	[illegible]	GRADATION [illegible]

G.I.D. Gulf Drilling Co., Inc.
Geotechnical Investigations

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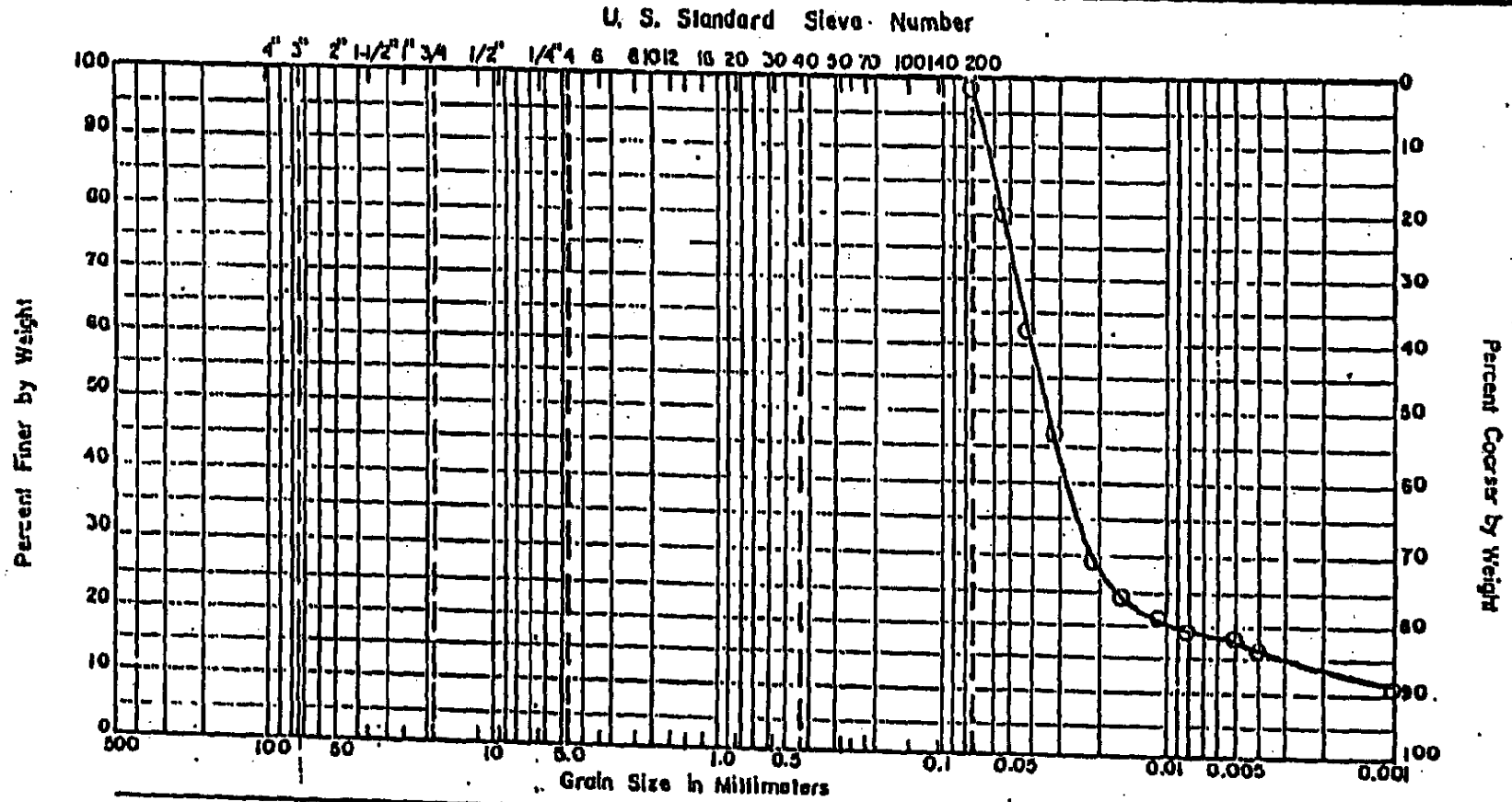

LEGEND	BORING no.	DEPTH		CLASSIFICATION	w_L	w_n	w_p	PI
O	B-20	32-34	ML	CLAYEY SILT, stiff		25		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	HSR	11/29/92	Project No.	82-530
Engineer	HSR	11/29/92	Figure No.	15

GID Gulf Drilling Co., Inc.

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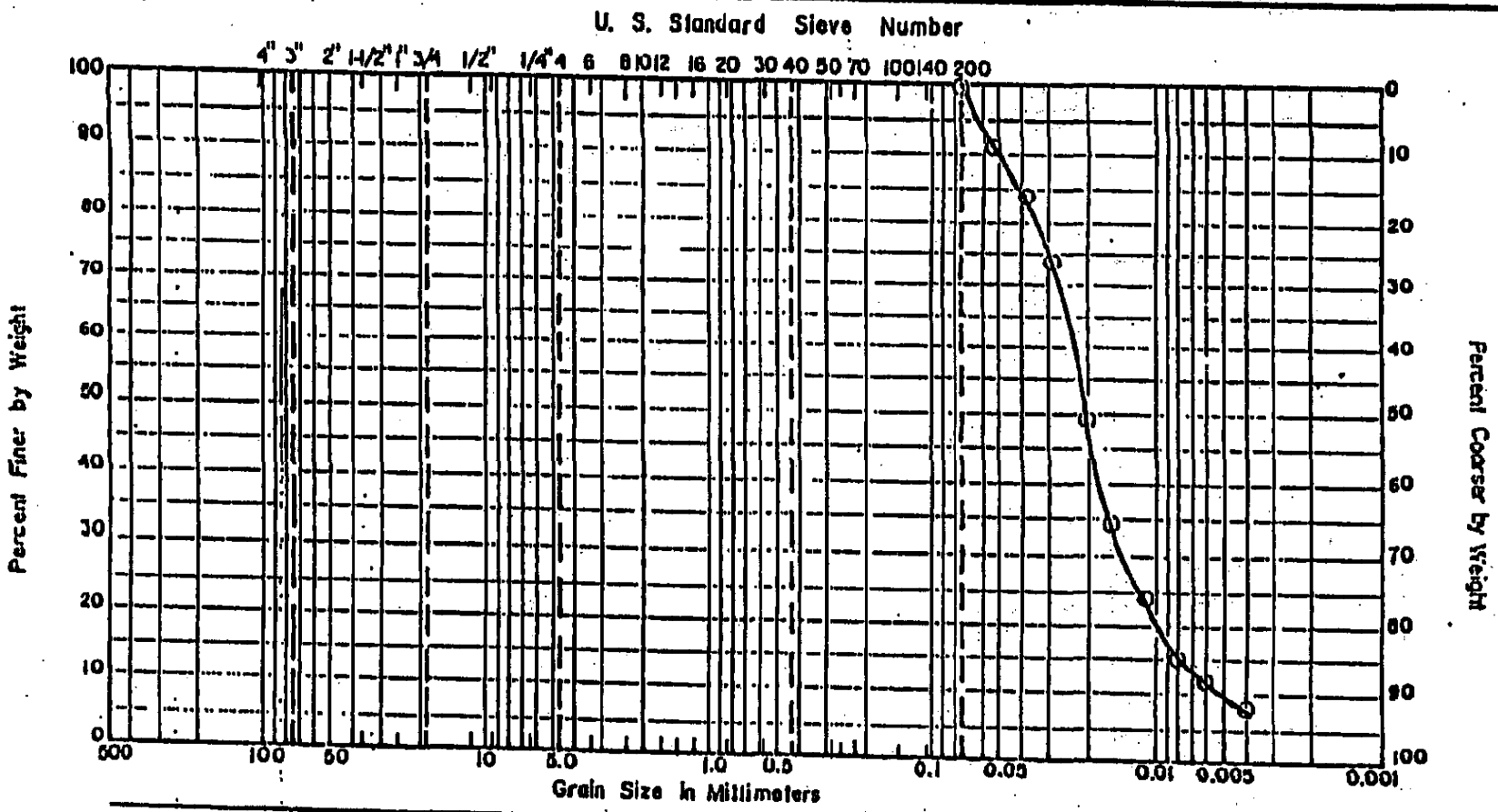

LEGEND	BORING NO.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
O	B-23	18-20	ML, CLAYEY SILT, medium stiff		29		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	ASR	11/29/82	Project No. 82-530
Engineer	ASR	11/29/82	Figure No. 16
Checked by			

GID Gulf Drilling Co., Inc.
Geotechnical Investiga

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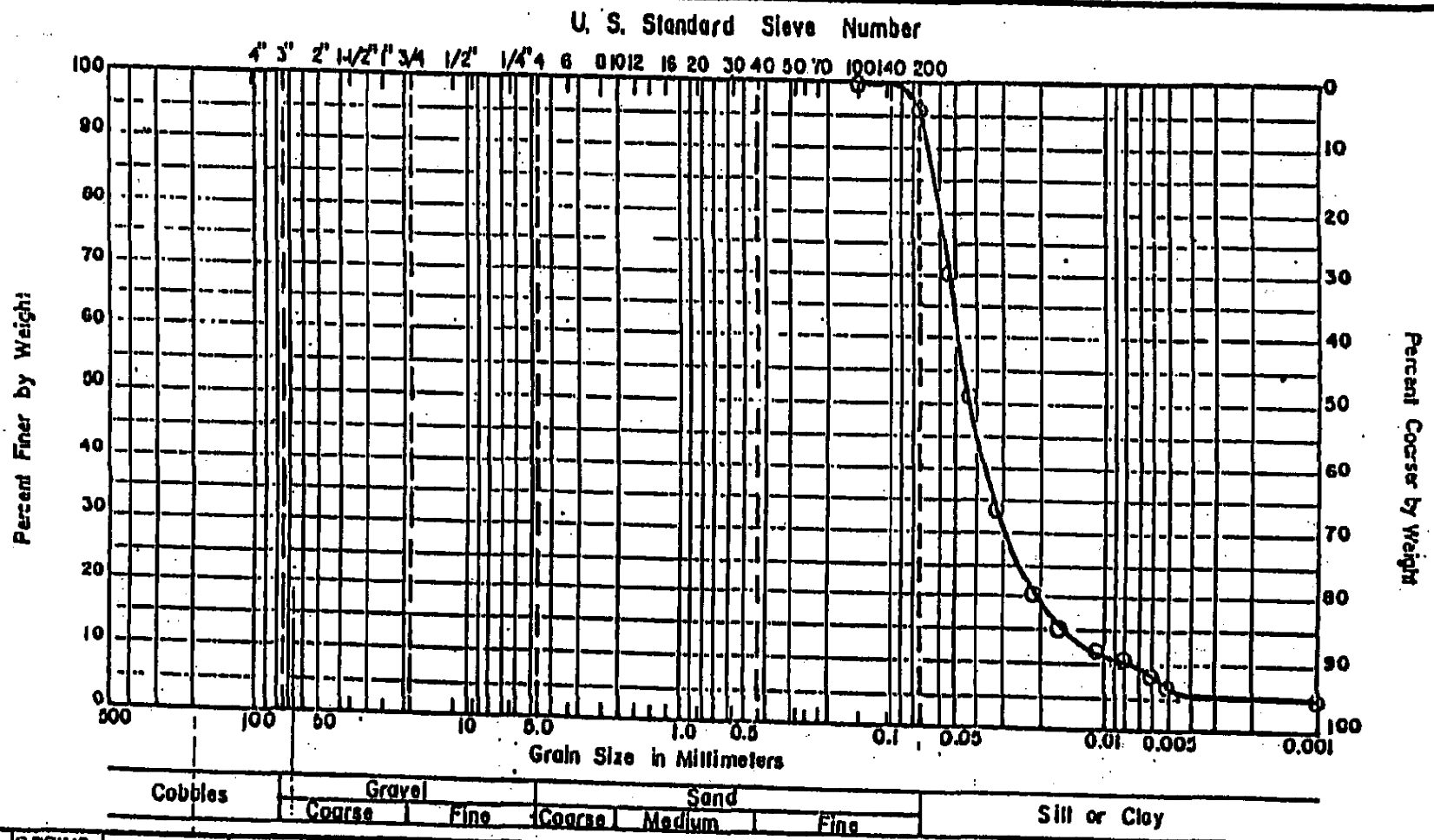


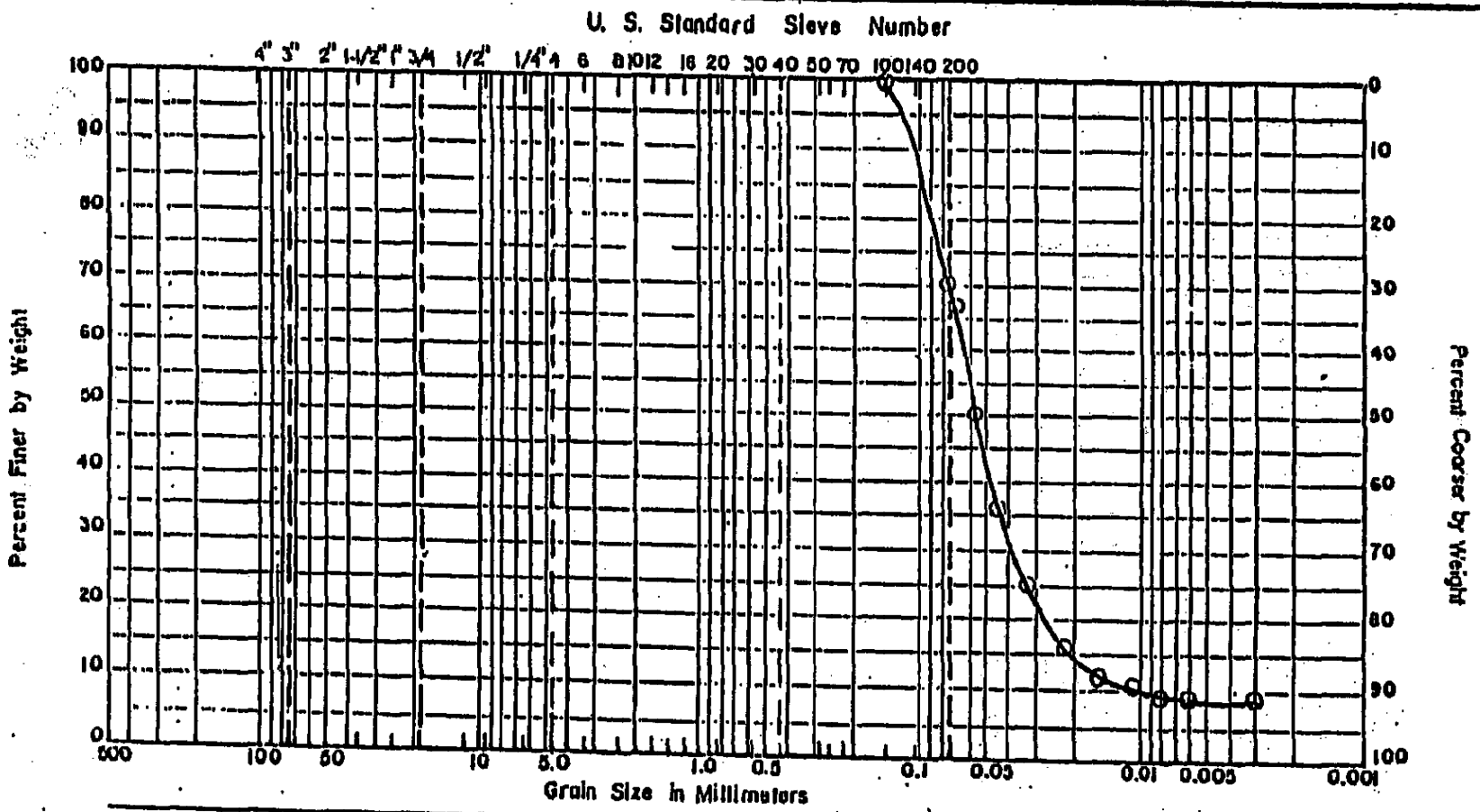
LEGEND	BORING no.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
O	B-25	24-26	ML, CLAYEY SILT, medium stiff		24		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	[illegible]	11/29/82	Project No. 82-530
Engineer	[illegible]	11/29/82	Figure No. 17

GID Gulf Drilling Co., Inc.



LEGEND	BORING no.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
O	B-26	32-34	ML, CLAYEY SILT, w/fine sand, medium stiff		25		

COLONIAL LANDFILL

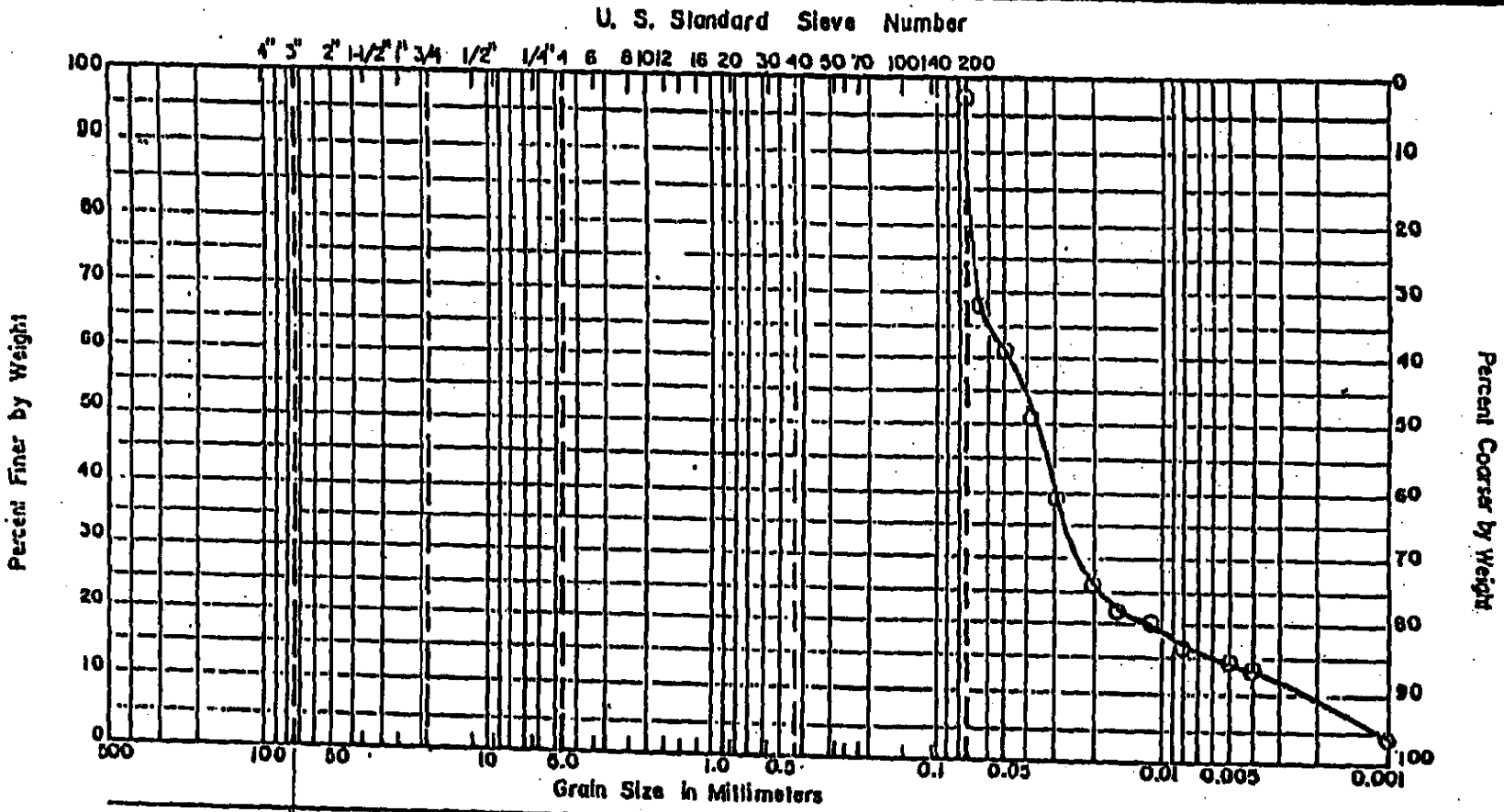
SORRENTO, LOUISIANA

Drawn by	HGR	11/24/91	Project No. 82-530
Engineer	HGR	11/29/91	Figure No. 18
Checked by	[illegible]	[illegible]	

GRADATION CURVE

GAD Gulf Drilling Co., Inc.

Geotechnical Investigati



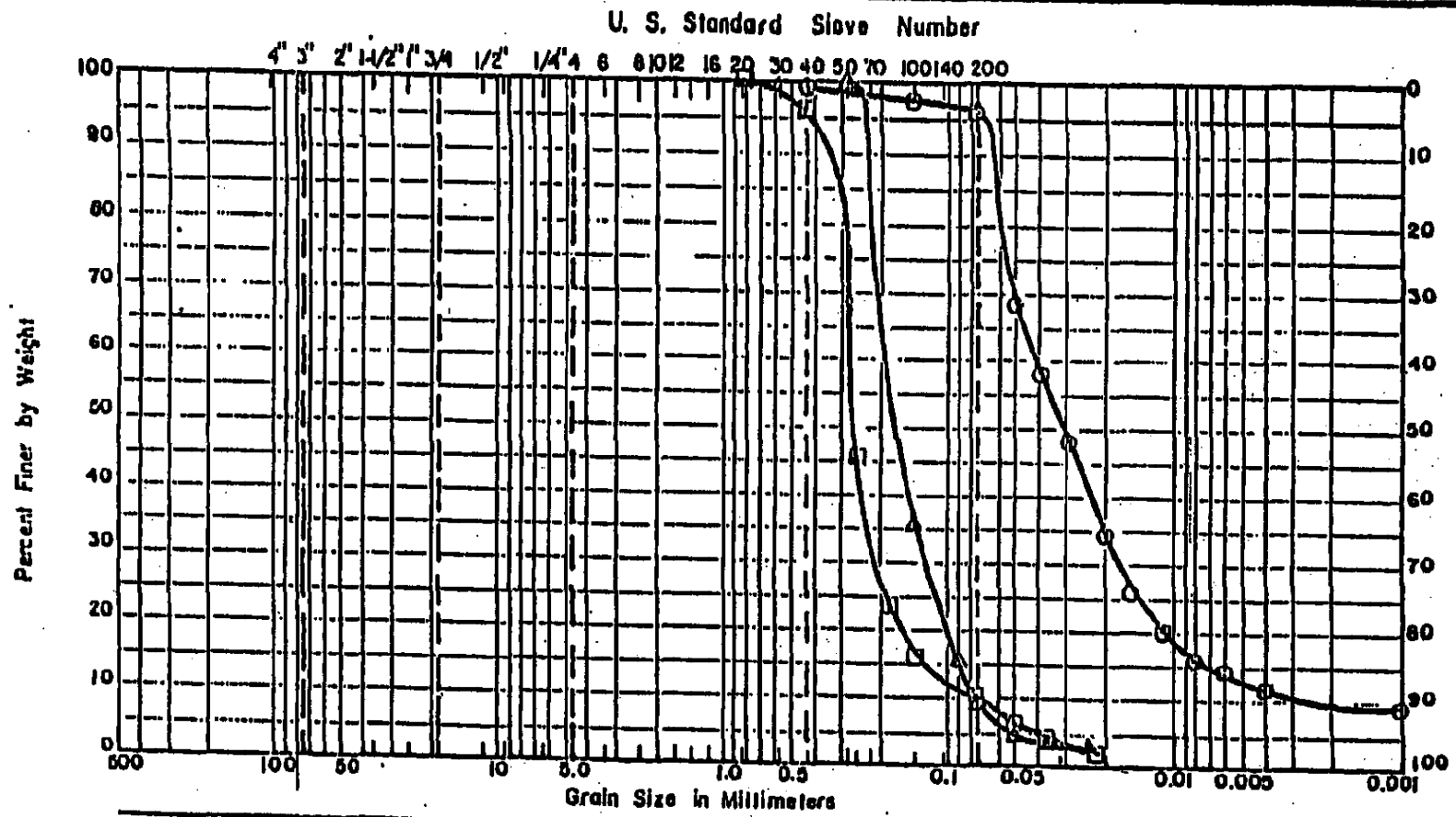
LEGEND	BORING no.	DEPTH		CLASSIFICATION	w_L	w_n	w_p	PI
O	B-30	32-34	ML	CLAYEY SILT, medium stiff		22		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	ASR	11/29/91	Project No.	82-530
Engineer	JSDL	11/29/91	Figure No.	19
Checked by	[illegible]	11/30/91		

GID Gulf Drilling Co., Inc.



LEGEND	BORING NO.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
O	B-32	63-65	ML, CLAYEY SILT, very stiff		35		
△	B-32	78-80	SM-SP, SILTY SAND-SAND, very dense		27		
□	B-32	98.5-100	SM-SP, SILTY SAND-SAND, dense		15		

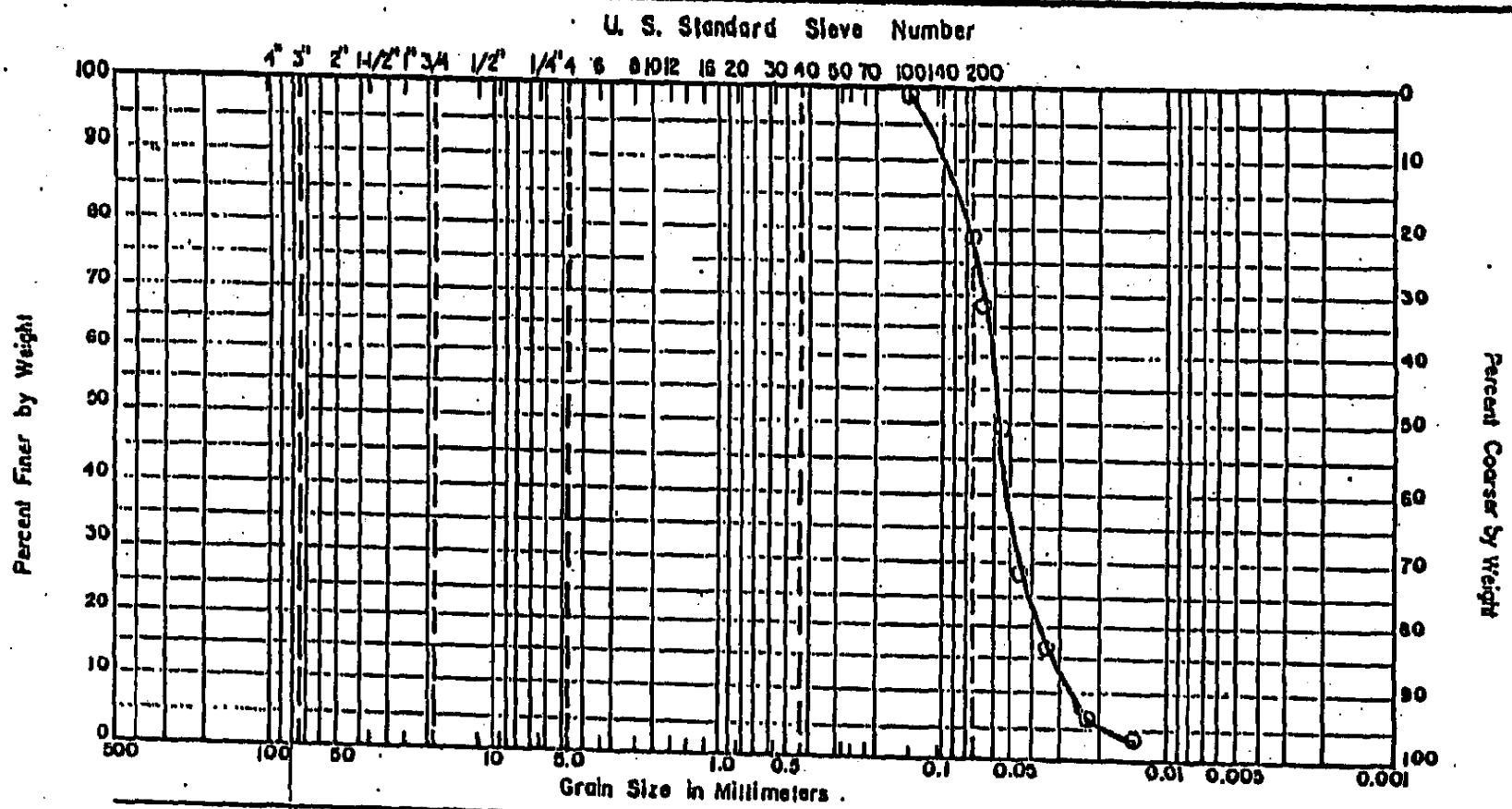
COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	ASK	11/29/82	Project No. 82-530
Engineer	ASK	11/29/82	Figure No. 20
Checked by	[illegible]	11/30/82	GRADATION CURVES

GAD Gulf Drilling Co., Inc.

Geotechnical Investigations



LEGEND	BORING NO.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
O	B-33	34-36	ML, SANDY SILT, clay traces, very dense		25		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	ASR	11/22/82	Project No. 82-530
Engineer	ASR	11/22/82	Figure No. 21
Checked by			

GD Gulf Drilling Co., Inc.

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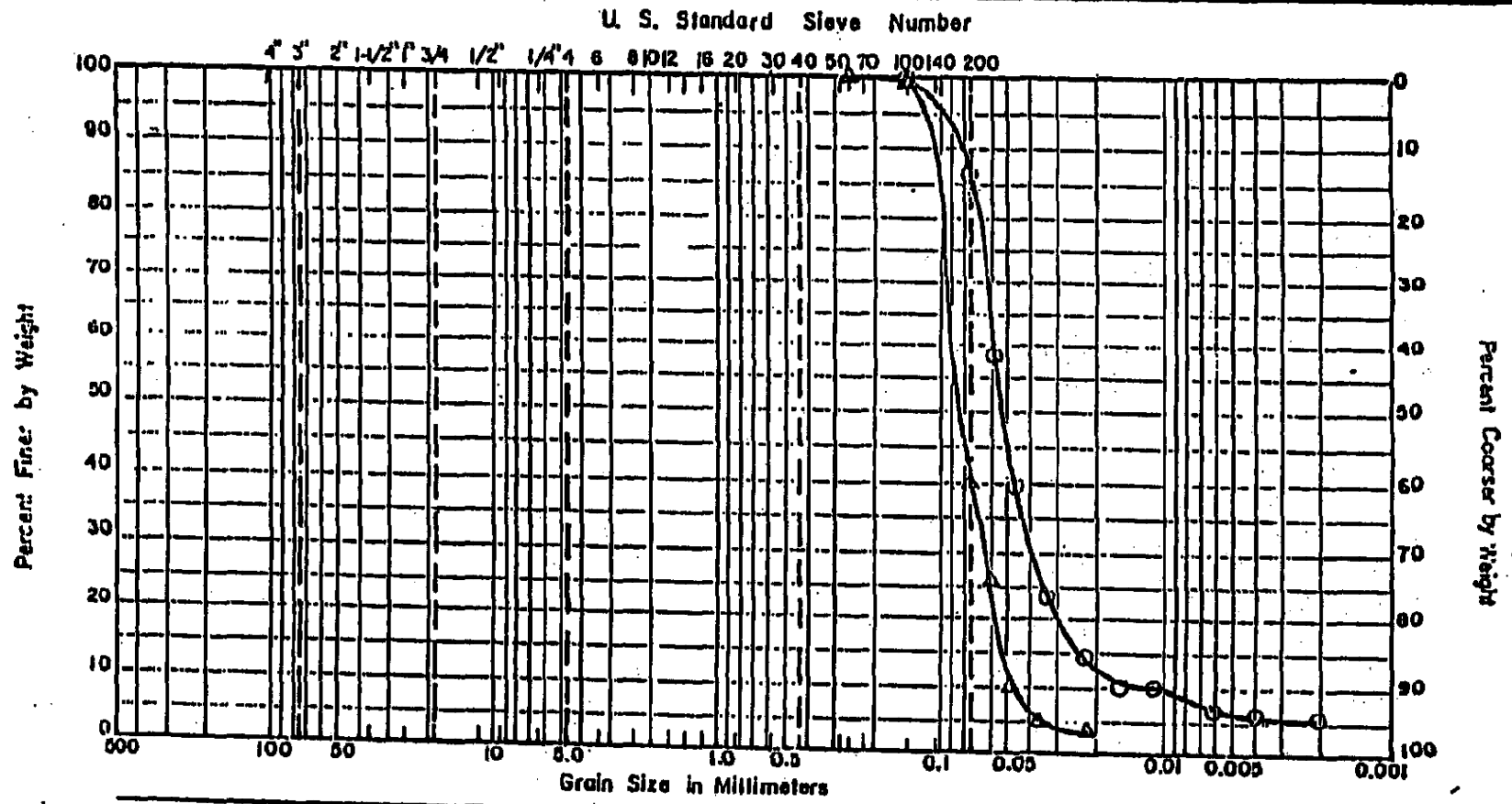

LEGEND	BORING no.	DEPTH	CLASSIFICATION	w_L	w_n	w_p	PI
○	B-34	63-65	ML, SANDY SILT, gray, traces of clay		27		
△	B-34	78-80	SM, SILTY SAND,		25		

COLONIAL LANDFILL

SORRENTO, LOUISIANA

Drawn by	JFSR	11/29/82	Project No. 82-530
Engineer	JFSR	11/29/82	Figure No. 22
Checked by			

GID

Gulf Drilling Co., Inc.

Geotechnical Investigations

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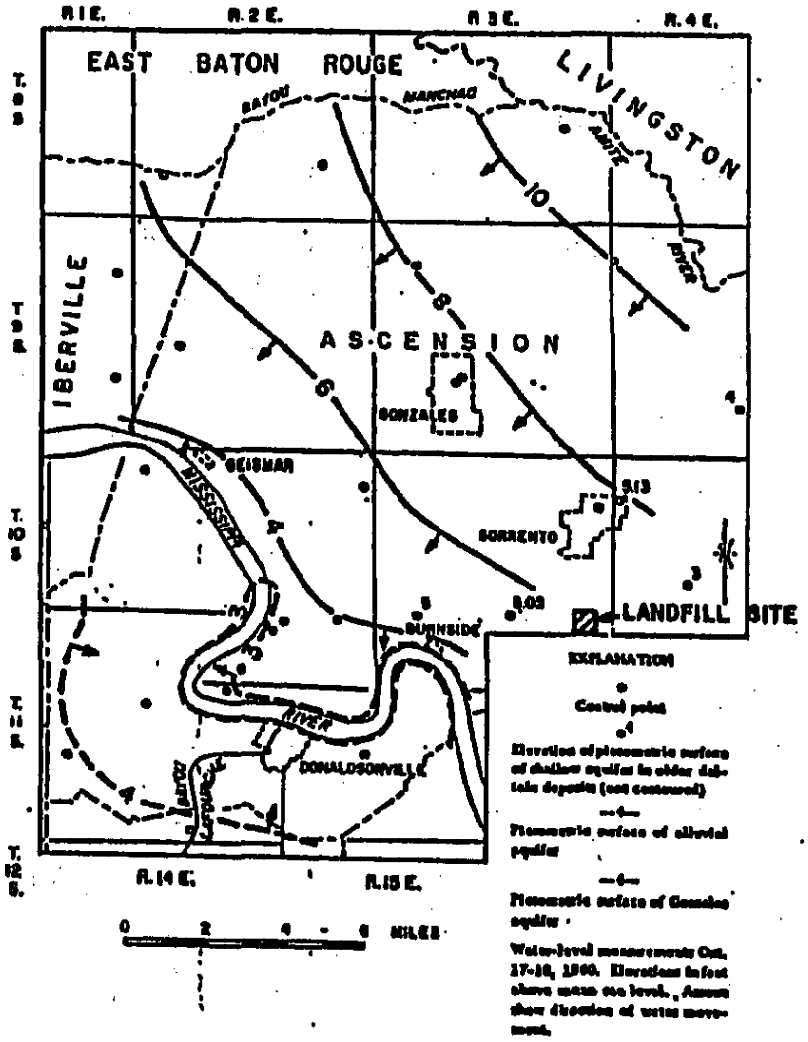
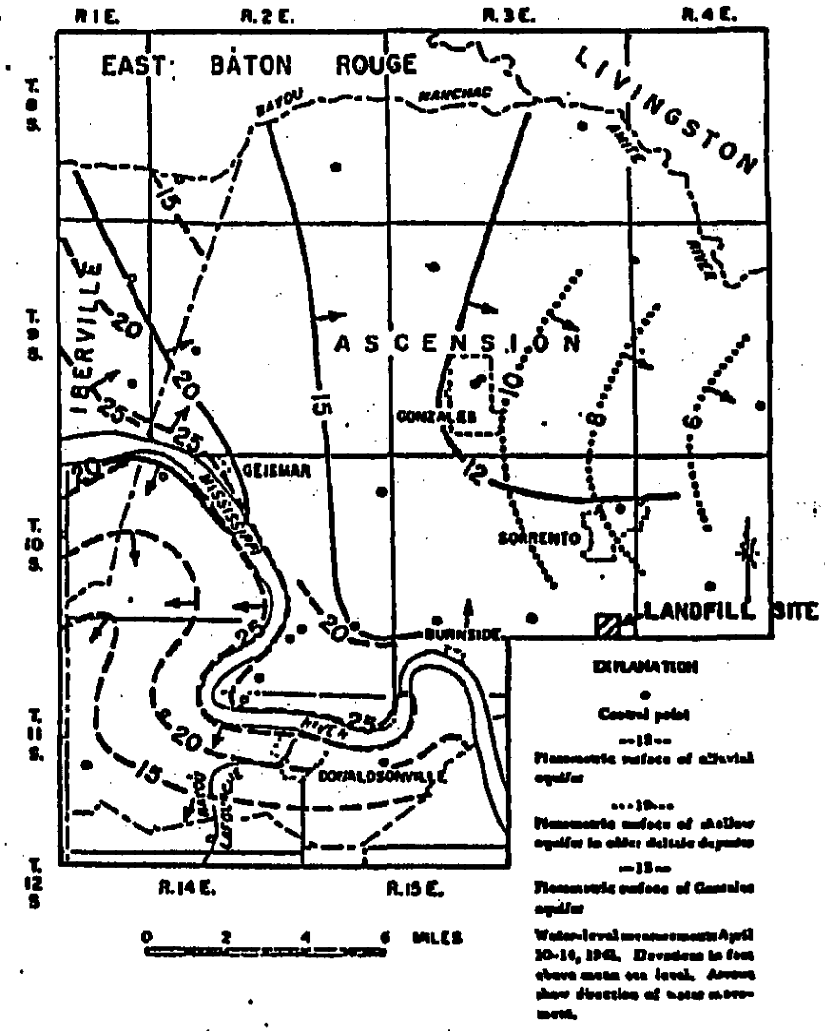


Map showing that the piezometric surface of the major aquifers slope gently toward the Mississippi River during the annual low river stage.



Map showing that the piezometric surface of the major aquifers slope steeply away from the Mississippi River during the annual high river stage.

EXHIBIT 12 Piezometric Surface of Major Aquifers During Annual Low and High River

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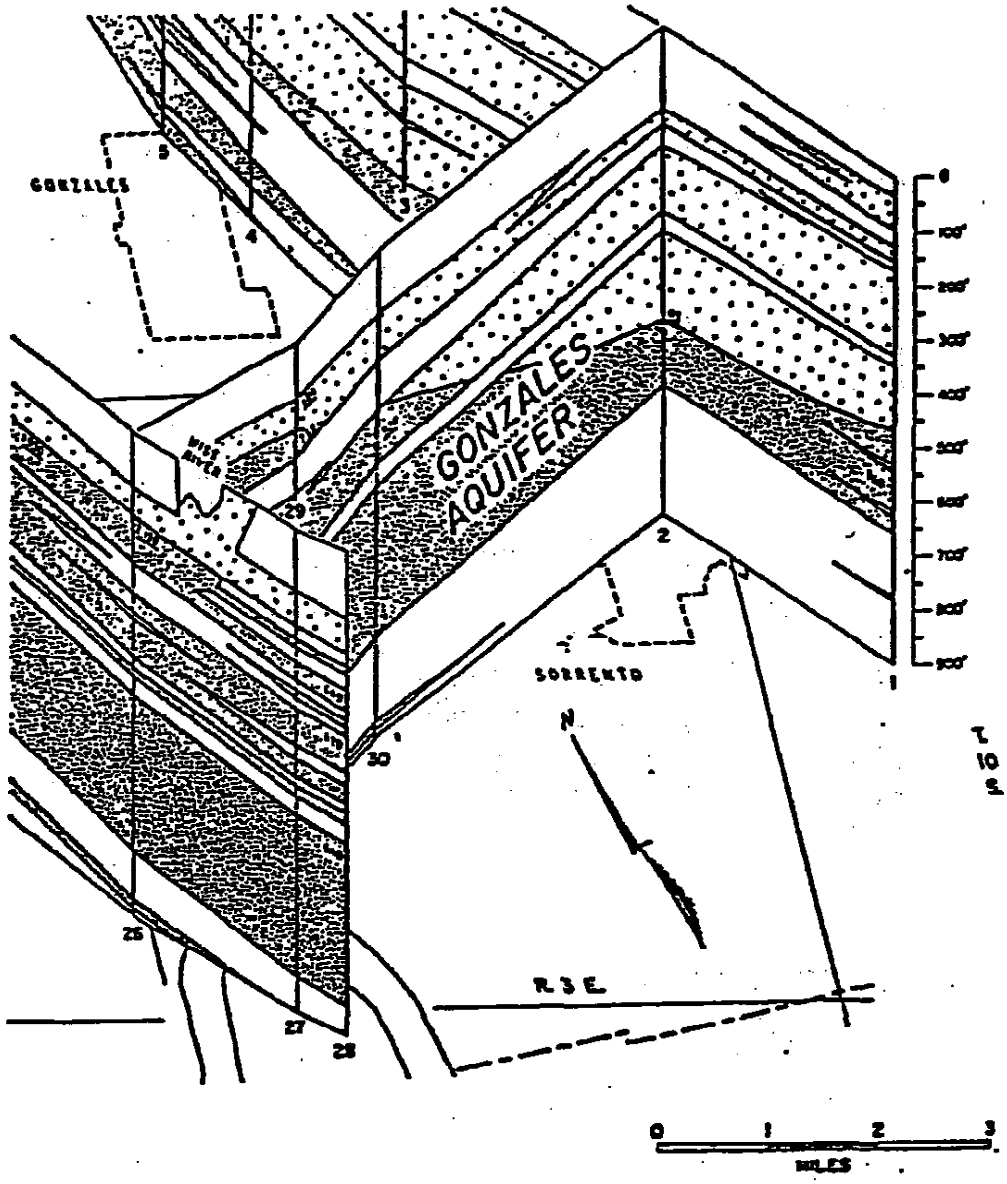
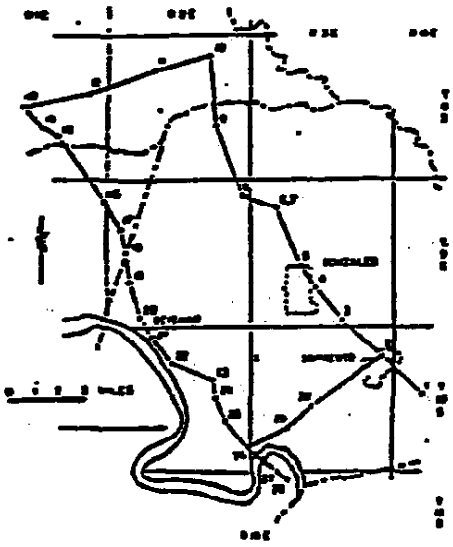




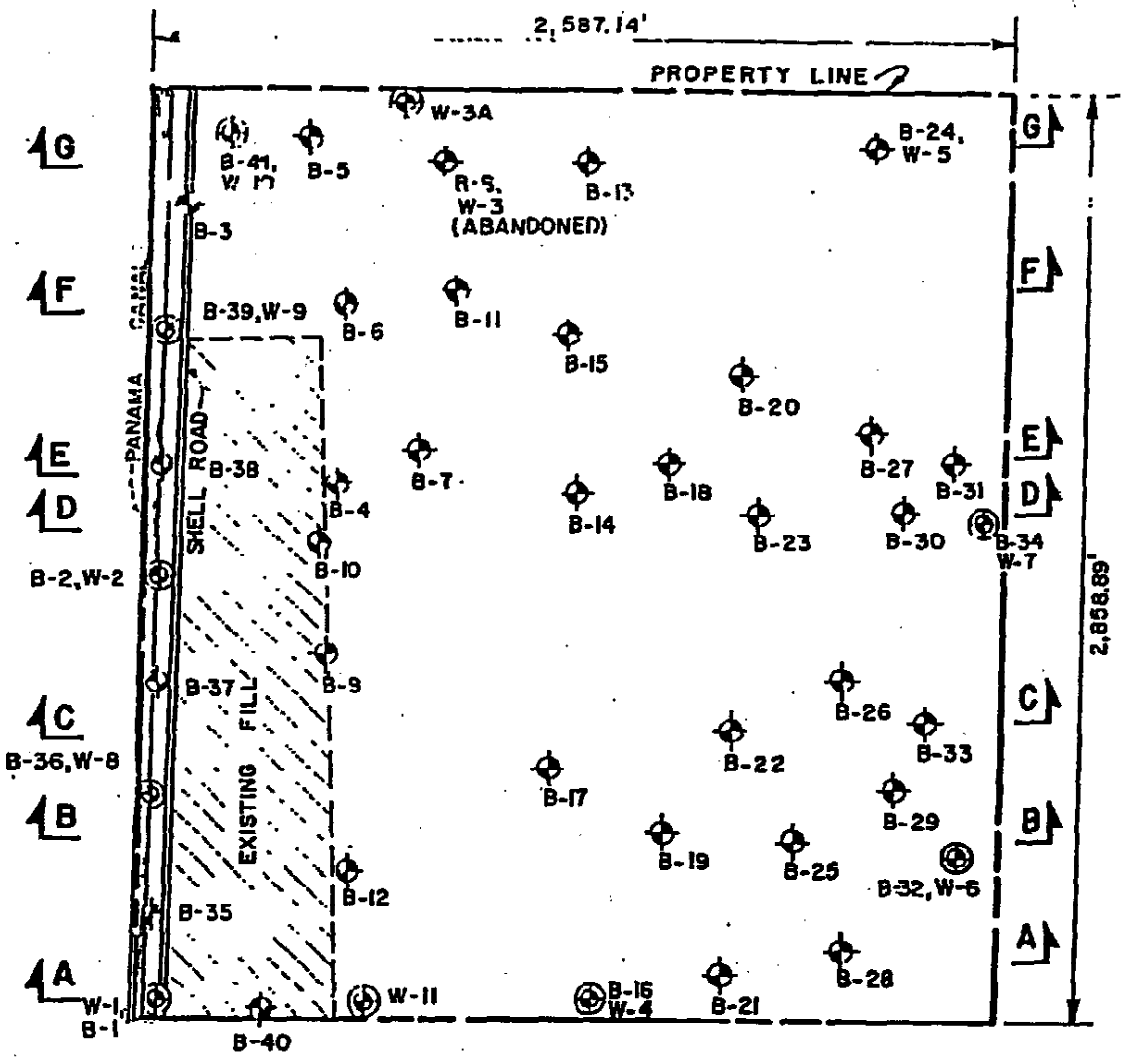
SOURCE: ADAPTED FROM LA. WATER RESOURCES BULLETIN NO. 7

EXPLANATION

- FRESH-WATER-BEARING SAND
- BRACKISH-WATER-BEARING SAND
- CLAY OR SILT
- CHLORIDE CONTENT OF WATER, IN PARTS PER MILLION, FROM CHEMICAL ANALYSIS
- CHLORIDE CONTENT OF WATER, IN PARTS PER MILLION, ESTIMATED FROM ELECTRIC LOG
- DATUM IS MEAN SEA LEVEL

EXHIBIT 13.

GEOLOGICAL CROSS SECT
ASCENSION PARISH, LA.
SE - 01



SITE PLAN

400' 0' 400' 800'

SCALE (APPROX)

LEGEND:

- BORING LOCATION
- MONITOR WELL

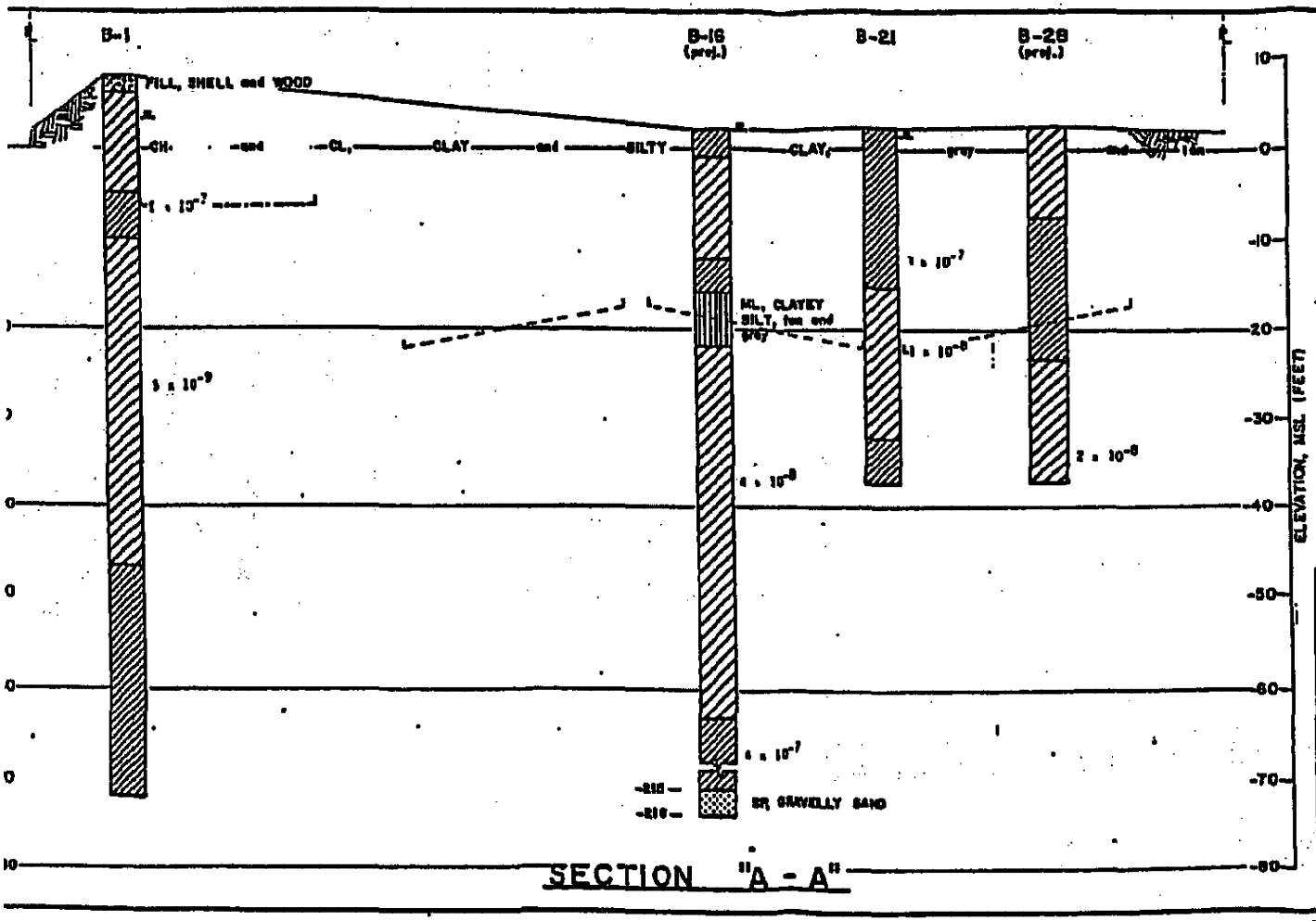
RE: EXHIBITS 15-21 FOR SECTIONS

SOLID WASTE DISPOSAL FACILITY
SORRENTO, LOUISIANA

FACILITY Nº: D-2-0532

COLONIAL LANDFILL, INC.
GONZALES, LOUISIANA

DRAWING TITLE: ISOMETRIC SOIL PROFILE & BORING LOCATIONS	GID Gulf Drilling Co., Inc. Geotechnical Investigations 822 Neosho Ave. Baton Rouge, La. 70802
DRAWN: D SCHEXNAYDER 11-12-82	PROJECT Nº: 86-519
ENGINEER: MCC 11-29-82	EXHIBIT Nº: 14
CHECKED: GBE 11/29/82	



SECTION "A - A"

LEGEND:

- FILL
- CH, CLAY
- CL, SILTY CLAY
- ML, CLAYEY SILT
- SP, GRAVELLY SAND
- WATER LEVEL READING ON OCTOBER 20, 1982
- 3×10^{-7} – PERMEABILITY TEST (CM/SEC)
- PROPOSED BOTTOM OF EXCAVATION
- BOTTOM OF EXISTING EXCAVATION

200' 0' 200' 400'
HORIZONTAL SCALE

SOLID WASTE DISPOSAL FACILITY
SORRENTO, LOUISIANA

FACILITY Nº: 0-2-0532

COLONIAL LANDFILL, INC.
GONZALES, LOUISIANA

DWG. TITLE: SOIL PROFILE	GID 6 Gulf Drilling Co., Inc. Geotechnical Investigations 6221 Hoosier Ave, Baton Rouge, La. 70822
DWN. A. SCHONAY-BK 10-18-82	PROJECT Nº 82-530
ENG.	EXHIBIT Nº 15
CHK'D.	

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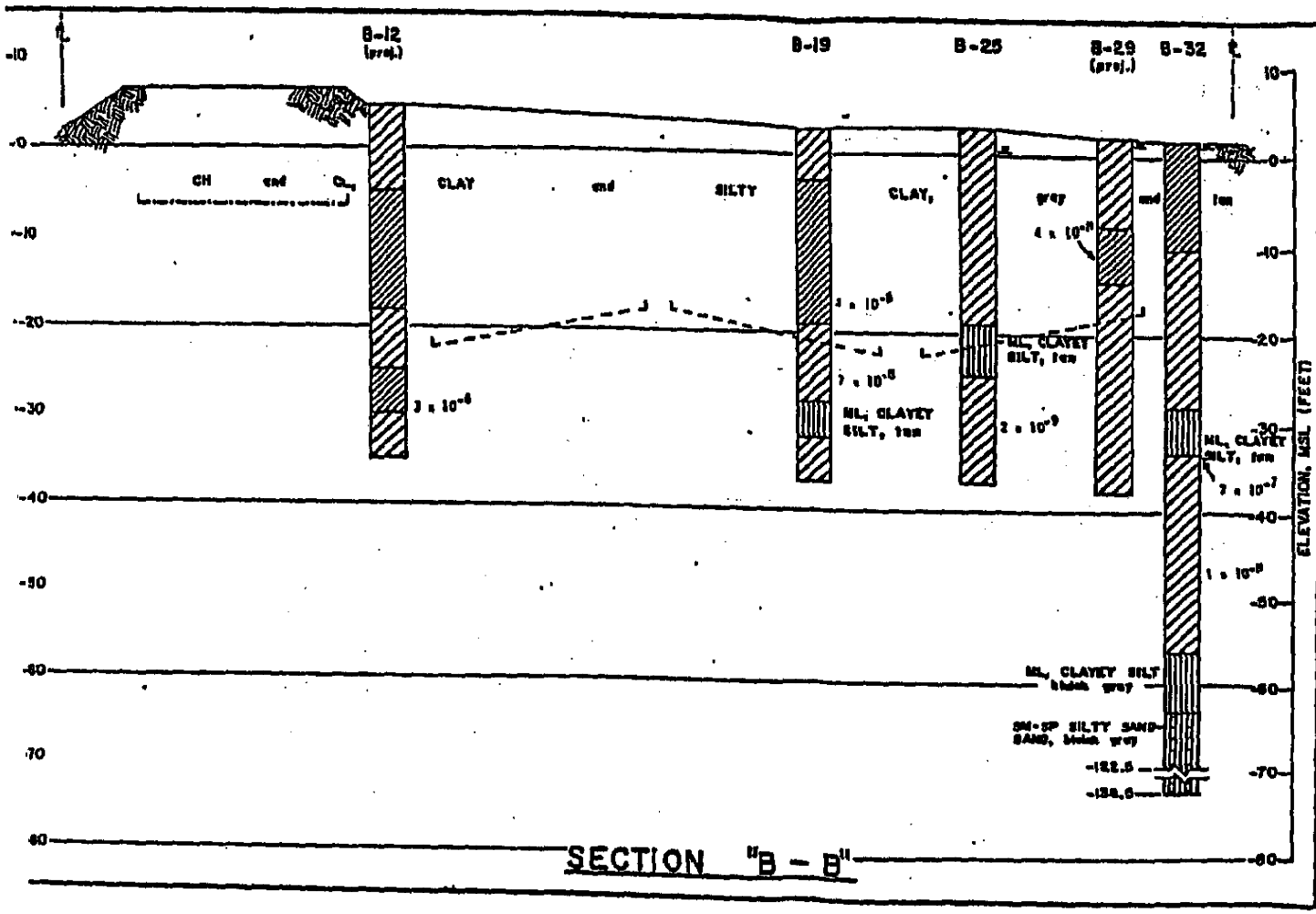

LEGEND:

- CH, CLAY
- CL, SILTY CLAY
- ML, CLAYEY SILT
- SM-SP, SILTY SAND-SAND
- WATER LEVEL READING ON OCTOBER 20, 1982
- 4×10^{-8} - PERMEABILITY TEST (CM/SEC)
- PROPOSED BOTTOM OF EXCAVATION
- BOTTOM OF EXISTING EXCAVATION

200' 0' 200' 400'
HORIZONTAL SCALE

SOLID WASTE DISPOSAL FACILITY
SORRENTO, LOUISIANA

FACILITY Nº: D-2-0532

COLONIAL LANDFILL, INC.
GONZALES, LOUISIANA

DWG. TITLE: SOIL PROFILE	GID Gulf Drilling Co., Inc. Geotechnical Investigations 822 Nicholson Ave. Baton Rouge, La. 70802
DWN. 11-18-82	PROJECT Nº 82-530
ENG.	EXHIBIT Nº 16
CHK'D.	

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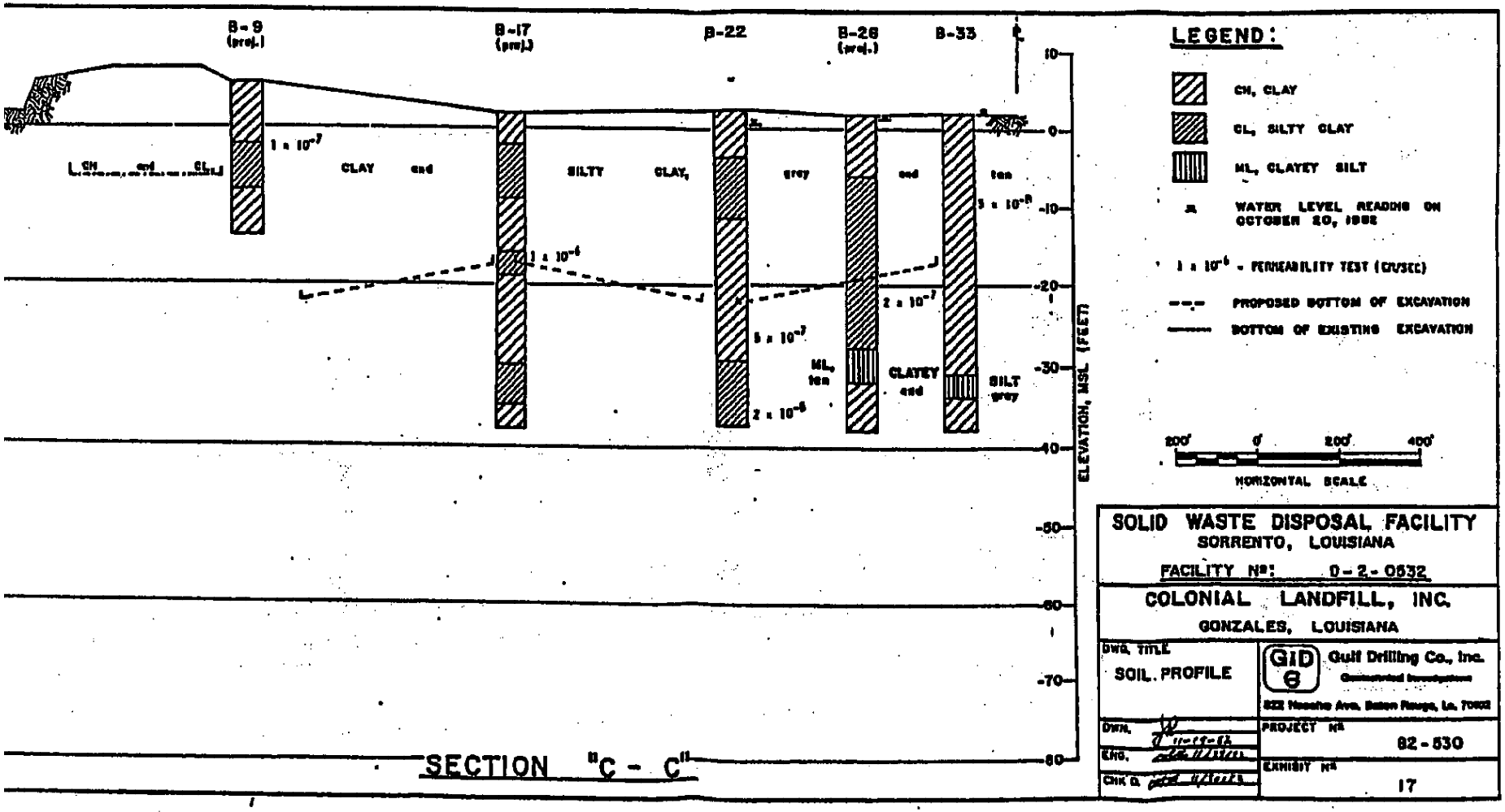

SECTION "C - C"

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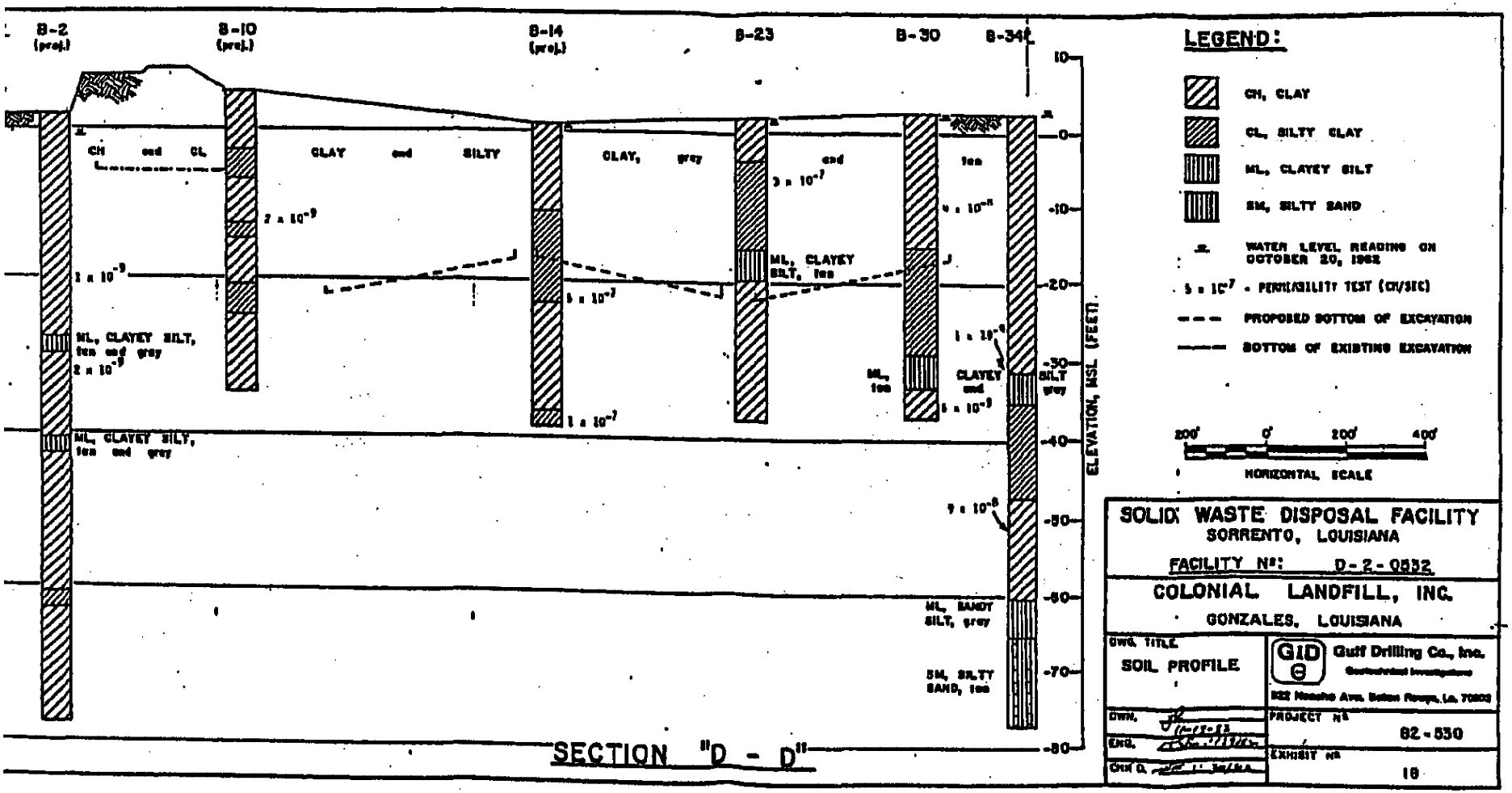
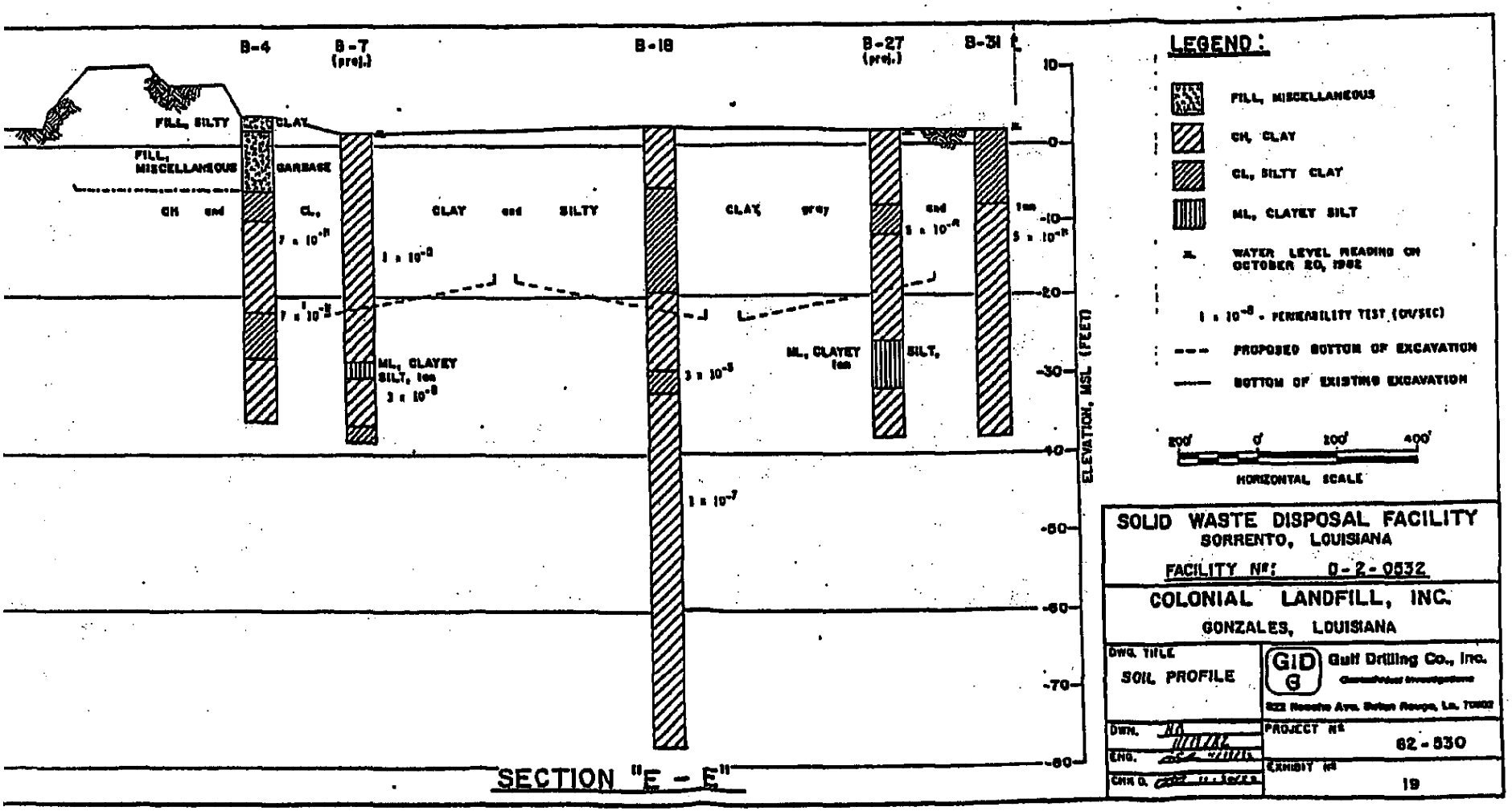

B-2 (proj.)
B-10 (proj.)
B-14 (proj.)
B-23
B-30
B-34
CH and CL
CLAY and SILTY
CLAY, grey
and
tan
ML, CLAYEY SILT, tan and grey
ML, CLAYEY SILT, tan and grey
ML, CLAYEY SILT, tan
ML, tan
CLAYEY and SILT grey
ML, SANDY SILT, grey
SM, SILTY SAND, tan
ELEVATION, MSL (FEET)
10
0
-10
-20
-30
-40
-50
-60
-70
-80
LEGEND:
CH, CLAY
CL, SILTY CLAY
ML, CLAYEY SILT
SM, SILTY SAND
WATER LEVEL READING ON OCTOBER 20, 1982
5 x 10^-7 - PERMEABILITY TEST (CM/SEC)
PROPOSED BOTTOM OF EXCAVATION
BOTTOM OF EXISTING EXCAVATION
200' 0' 200' 400'
HORIZONTAL SCALE
SOLID WASTE DISPOSAL FACILITY
SORRENTO, LOUISIANA
FACILITY Nº: D-2-0852
COLONIAL LANDFILL, INC.
GONZALES, LOUISIANA
DWG. TITLE
SOIL PROFILE
GID
Gulf Drilling Co., Inc.
DWN.
ENG.
CHK'D.
PROJECT Nº
82-530
EXHIBIT Nº
10

SECTION "D - D"



SECTION "E - E"

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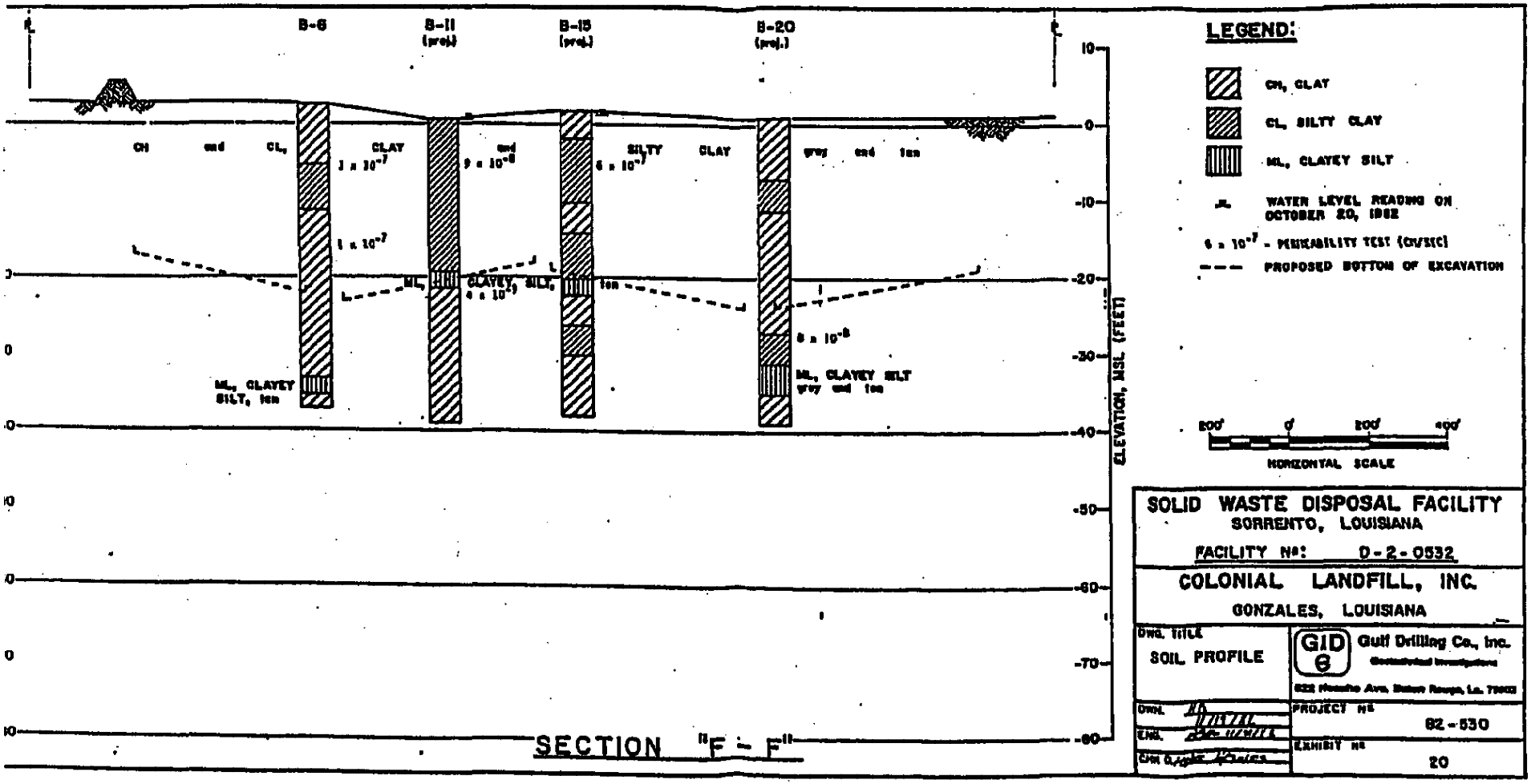

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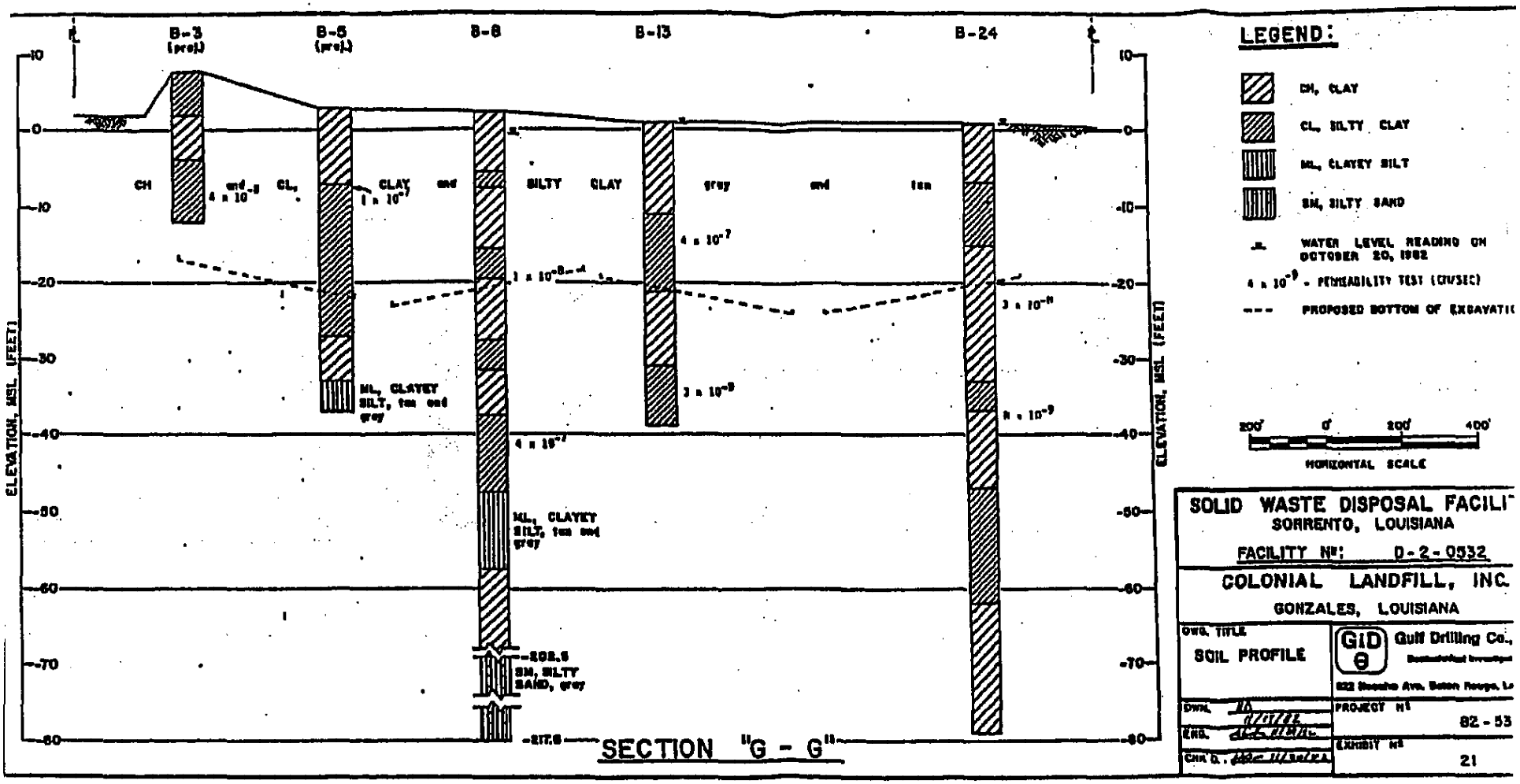
B-3 (proj)
B-5 (proj)
B-8
B-13
B-24
CH
CL,
CLAY and
SILTY CLAY
gray and tan
ML, CLAYEY SILT, tan and gray
SM, SILTY SAND, gray
ELEVATION, MSL (FEET)
LEGEND:
CH, CLAY
CL, SILTY CLAY
ML, CLAYEY SILT
SM, SILTY SAND
WATER LEVEL READING ON OCTOBER 20, 1982
PERMEABILITY TEST (CM/SEC)
PROPOSED BOTTOM OF EXCAVATI
HORIZONTAL SCALE
SOLID WASTE DISPOSAL FACILI
SORRENTO, LOUISIANA
FACILITY Nº: D-2-0532
COLONIAL LANDFILL, INC.
GONZALES, LOUISIANA
DWG. TITLE
SOIL PROFILE
Gulf Drilling Co.,
PROJECT Nº
82-53
EXHIBIT Nº
21

SECTION "G - G"

BORING LOG

PROJECT NAME: Colonial Landfill

BORING 3-1

PROJECT NO. 82
DATE 87
BORING TYPE
ENG./LOGGER AS

LOCATION: Sorrento, Louisiana

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									FILL, shell and wood
		0.8(p)							CH, CLAY, gray, traces of orga matter, medium stiff
	5	1.2(p)							
		1.5(p)							
		1.2(p)	72	46	92	59			
	10	1.2(p)							
		2.2(p)							
	15		100	28	37	15			CL, SILTY CLAY, tan and gray, of organic matter, medium s k= 5.8 X 10^{-7} cm/sec.
		1.5(p)							stiff
		2.5(p)	92	26	58	30			CH, CLAY, tan and gray, traces organic matter, stiff
	20	2.5(p)							
		2.7(p)							very stiff
	25	2.5(p)							
		3.2(p)							
			105	26	56	35			k= 5.4 X 10^{-9} cm/sec.
	30	4.0(p)							
		4.2(p)							
	35	3.0(p)							
		3.0(p)							
		3.2(p)	81	37	85	56			

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1 hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-1 (cont'd)

PROJECT NO. 82-53
DATE 8/19/
BORING TYPE
ENG./LOGGER ASI

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CH, CLAY, tan and gray, traces of organic matter, very stiff
	45	3.5(p							
	50	3.0(p							
	55	3.0(p							
									CL, SILTY CLAY, tan and gray, tra of organic matter, very sti
	60	3.5(p							
	65	4.0(p	96	25	46	22			
	70	4.0(p							
	75	4.5(p							
		4.0(p	101	23	38	16			Boring Completed

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

GID

REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING 9-2

PROJECT NO. 82
DATE 8/
BORING TYPE
ENG./LOGGER AS

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.5(p)							CH, CLAY, gray and tan, trace organic matter, medium sti
		1.2(p)							
	5	1.7(p)							gray
		1.2(p)							silt and fine sand lenses interval 6 to 10 feet
		0.2(p)	79	39	55	32			
	10	3.5(p)	103	21					tan and gray, very stiff
		3.0(p)							
	15	2.7(p)	96	25	58	38			
		3.0(p)							
		2.0(p)							
	20	3.7(p)							
			99	26	51	34			k= 1.1 X 10^{-9} cm/sec.
	25	4.2(p)							
		3.2(p)							
		2.7(p)							
	30	1.5(p)							ML, CLAYEY SILT, tan and gray; medium stiff
		2.2(p)							CH, CLAY, tan and gray, traces o silt and organic matter, ver stiff
	35		89	35	64	38			k = 1.6 X 10^{-9} cm/sec.
		3.5(p)							
		2.7(p)							

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1 hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-2 (cont'd)

PROJECT NO. 82-530
DATE 8/23/8
BORING TYPE
ENG./LOGGER ASR/

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CH, CLAY, tan and gray, traces of and organic matter, very stiff
		3.5(p)	95	26					ML, CLAYEY SILT, tan and gray, ver stiff
	45								CH, CLAY, tan and gray, traces of silt and organic matter to a de of 55 feet, very stiff
		3.2(p)							
	50								
		3.0(p)							
	55								
		3.5(p)	98	25	54	31			
	60								
		2.5(p)							CL, SILTY CLAY, tan and gray, silt lenses, stiff
	65								CH, CLAY, tan and gray, silt pocket very stiff
		3.2(p)							
	70								
		3.5(p)							
	75								
		3.7(p)	89	31	66	38			Boring Completed

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

▽ INITIAL WATER LEVEL
▼ WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-3

PROJECT NO. 82-
DATE 5/4
BORING TYPE
ENG./LOGGER MLM

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		4.5(p)							CL, SILTY CLAY, gray and tan, stiff
		4.3(p)							
	5	3.0(p)		22	44	26			tan and orange, organic mat
		2.3(p)							CH, CLAY, gray and tan, traces organic matter, medium sti
		1.5(p)		42	89	50			
	10	1.5(p)	81	45	90	61			
		2.5(p)		23	48	31			CL, SILTY CLAY, gray and tan, medium stiff
	15	2.3(p)							
			107	24	39	21			k= 4 X 10^{-8} cm/sec.
		3.8(p)		22	43	27			traces of organic matter, s
	20								Boring Completed

SHELBY TUBE

SPLIT SPOON

AUGER

NO RECOVERY

INITIAL WATER LEVEL

WATER LEVEL (AFTER 0.1hr)

SPT- STANDARD PENETRATION TEST (BLOWS/FT)

P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING 9-4

PROJECT NO. 82-5

DATE 7/16/

BORING TYPE

ENG./LOGGER AS

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		2.5(p)							CL, SILTY CLAY, tan, sand pockets very stiff
	5								FILL, Garbage
	10	1.7(p)							CL, SILTY CLAY, gray and tan, medium stiff
		2.5(p)	101	23	33	13			
	15	3.0(p)							CH, CLAY, tan and gray, very stiff
			106	21	56	36			k= 7.5 X 10^{-8} cm/sec.
		2.5(p)							
	20	2.7(p)	86	33	82	48			fine sand traces in the interv 20 to 22 feet
		4.0(p)							
	25	3.0(p)							
			97	28	42	20			CL, SILTY CLAY, tan and gray, very stiff
	30	3.0(p)							k = 7.0 X 10^{-8} cm/sec.
		3.5(p)							
		3.5(p)							CH, CLAY, tan and gray, silt and f sand pockets, very stiff
	35	3.0(p)							
		3.5(p)	90	28	83	54			
		3.5(p)							Boring Completed

SHELBY TUBE

SPLIT SPOON

AUGER

NO RECOVERY

INITIAL WATER LEVEL

WATER LEVEL (AFTER 0.1hr)

SPT- STANDARD PENETRATION TEST (BLOWS/FT)

P- POCKET PENETROMETER READING (TSF)

GID

REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING 8-5

PROJECT NO. 8
DATE 7/
BORING TYPE
ENG./LOGGER AS

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CH, CLAY, brown, wood to a dep 4 feet, soft
7	5	1.5(p)	91	28	59	37			tan and gray, medium stiff
		1.0(p)							
7		2.0(p)							
	10		107	21	41	25			CL, SILTY CLAY, tan and gray, slickensided to a depth of feet, very stiff → k= 1.4 X 10^{-7} cm/sec.
		3.5(p)							
	15	2.7(p)							
		3.5(p)							
		3.5(p)	102	21					
	20								
		4.0(p							traces of silt and fine sanc
	25	2.7(p)	97	23	32	7			
		2.7(p)							
		2.5(p)							
	30								
		3.5(p)							CH, CLAY, tan and gray, slickens very stiff
		3.0(p)							
	35	3.5(p)	88	31	77	48			
		1.5(p							ML, CLAYEY SILT, tan and gray, medium stiff
		2.7(p)		26					stiff

SHELBY TUBE

SPLIT SPOON

AUGER

NO RECOVERY

INITIAL WATER LEVEL

WATER LEVEL (AFTER 0.1 hr)

SPT- STANDARD PENETRATION TEST (BLOWS/FT)

P- POCKET PENETROMETER READING (TSF)

REMARKS: Boring Completed

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-6

PROJECT NO. 82-53(

DATE 7/15/8

BORING TYPE

ENG./LOGGER ASR

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.5(p)							CH, CLAY, gray and tan, wood fragments to a depth of 6 feet, medium stiff
		1.5(p)	67	50	89	57			
	5	1.0(p)							
		2.0(p)	104	23.3					
			98	27	47	27			CL, SILTY CLAY, gray, very stiff, k = 3.0 X 10^{-7} cm/sec.
	10	2.0(p)							
		2.7(p)							
	15	3.5(p)	106	20	52	36			CH, CLAY, tan and light gray, some sand size cemented particles t a depth of 26 feet, very sti slickensided, k = 1.5 x 10^{-7} cm/sec.
		3.0(p)							
			91	31	60	33			
	20	2.5(p)							
		3.0(p)							
	25	3.0(p)	86	32	69	42			
		3.0(p)							light gray and brown
		2.0(p)							tan and light gray, silt and fine sand pockets
	30	3.5(p)							
		3.5(p)	78	40	80	51			
	35	4.0(p)							
		1.0(p)		29					ML, CLAYEY SILT, tan, soft
		3.0(p)							CH, CLAY, light gray, very stiff

SHELBY TUBE

SPLIT SPOON

AUGER

NO RECOVERY

INITIAL WATER LEVEL

WATER LEVEL (AFTER 0.1 hr)

SPT- STANDARD PENETRATION TEST (BLOWS/FT)

P- POCKET PENETROMETER READING (TSF)

Boring Completed

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-7

PROJECT NO. 82
DATE 7/
BORING TYPE
ENG./LOGGER ASI

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.0(p							CH, CLAY, tan, wood to a depti 4 feet, medium stiff
		1.5(p							
	5	2.0(p	85	34	74	52			gray and tan, stiff
		1.5(p							
		3.0(p							
	10								silt lenses and traces of organic matter in the inte 10 to 14 feet
		3.5(p							
		2.5(p							
	15	2.5(p							very stiff
			95	30	51	30			k= 1.1 X 10^{-8} cm/sec.
		2.5(p							
	20	2.7(p							
		3.0(p							
	25	3.0(p							traces of organic matter in interval 20 to 26 feet
		3.0(p							
		3.0(p	89	35	77	46			
	30	1.0(p							ML, CLAYEY SILT, tan, medium den
		3.5(p							CH, CLAY, tan and gray, very sti
	35		83	39	68	42			k = 3.4 X 10^{-8} cm/sec.
		3.7(p							
		2.5(p	93	26	34	12			CL, SILTY CLAY, tan and gray, ve stiff

SHELBY TUBE

SPLIT SPOON

AUGER

NO RECOVERY

▽ INITIAL WATER LEVEL

▼ WATER LEVEL (AFTER 0.1 hr)

SPT- STANDARD PENETRATION TEST (BLOWS/FT)

P- POCKET PENETROMETER READING (TSF)

GID

Boring Completed

REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING 8-8

PROJECT NO. 82-530
DATE 8/25/8
BORING TYPE
ENG./LOGGER ASR

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		3.0(p)							CH, CLAY, gray and brown, traces organic matter, very stiff
		2.0(p)							
	5	1.2(p)							
		1.2(p)							stiff
		1.7(p)	100	23	38	17			CL, SILTY CLAY, tan and gray, medi stiff
	10	2.5(p)	106	21					CH, CLAY, tan and gray, traces of organic matter, very stiff
		2.5(p)							
	15	3.0(p)							traces of silt
		2.7(p)							
		2.5(p)							CL, SILTY CLAY, tan and gray, very stiff $k = 1.4 \times 10^{-8}$ cm/sec.
	20		105	24	47	19			
		3.0(p)							CH, CLAY, tan and light gray, trac of organic matter at 24 to 26 feet, very stiff
	25	3.0(p)							
		2.7(p)							
		2.2(p)	93	26	55	32			
	30	2.5(p)							CL, SILTY CLAY, gray and tan, fine sand streaks, stiff
		2.5(p)							
	35	3.5(p)							CH, CLAY, gray and tan, traces of organic matter in the interval 34 to 36 feet, very stiff
		3.0(p)							
		3.2(p)							

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.2 hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

GID

REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING 8-8 (cont'd)

PROJECT NO. 82
DATE 8/
BORING TYPE
ENG./LOGGER AS

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CL, SILTY CLAY, light gray and very stiff
	45		97	25	40	18			k = 4.1 X 10^{-7} cm/sec.
		4.2(p)	100	22	48	29			traces of organic matter
	50								ML, CLAYEY SILT, tan and gray, sand traces, stiff
		2.7(p)							
	55								
		1.7(p)	100	23					tan, medium stiff
	60								CH, CLAY, gray and tan, very st
		3.5(p)							
	65								
		3.7(p)	83	35	78	46			
	70								
		2.5(p)							ML, CLAYEY SILT, gray, stiff
	75								
			96	25					very stiff

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

▽ INITIAL WATER LEVEL
▼ WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-8 (cont'd)

PROJECT NO. 82-530
DATE 8/26/82
BORING TYPE
ENG./LOGGER ASR/

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									ML, CLAYEY SILT, gray, very stiff
	85								CL, SILTY CLAY, tan and gray, very stiff
	90								
	95								
		3.2(p)	86	35	47	22			
	100								
	105								
	110								
	115								
		4.5+(p)	102	21	54	30			CH, CLAY, light gray and tan, very stiff

SHELBY TUBE

SPLIT SPOON

AUGER

NO RECOVERY

INITIAL WATER LEVEL

WATER LEVEL (AFTER _____)

SPT- STANDARD PENETRATION TEST (BLOWS/FT)

P- POCKET PENETROMETER READING (TSF)

GID

REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-8 (cont'd)

PROJECT NO. 82
DATE 8/
BORING TYPE
ENG./LOGGER AS

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
	125, 130, 135								CH, CLAY, light gray and tan, stiff
	140, 145, 150, 155	4.2(p)	102	21	47	26			CL, SILTY CLAY, gray and tan, c ed particles, traces of org matter, very stiff
		1.5(p)	97	26					ML, SANDY SILT, dark gray, traces of clay and organic matter, c

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-8 (cont'd)
PROJECT NO. 82-53
DATE 8/27/
BORING TYPE
ENG./LOGGER AS

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CH, CLAY, gray, traces of silt, very stiff
	165								
	170								
	175								
	180	3.0(p)	87	32	55	32			fine sand lenses and shell
	185								
	190								
	195								
		3.2(p	93	27	37	17			CL, SILTY CLAY, dark gray, shell, very stiff

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING 9-8 (cont'd)

PROJECT NO.
DATE
BORING TYPE
ENG./LOGGER

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CL, SILTY CLAY, dark gray,
	205								SM, SILTY SAND, gray, very
	210								
	215								
		SPT 40/2"		17					
	220								Boring Completed

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER_____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING 8-9

PROJECT NO. 82-530
DATE 5/4/32
BORING TYPE
ENG./LOGGER MLH

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		0.5(p)							CH, CLAY, gray, soft
		1.0(p)		55	86	41			
	5	1.5(p)							
		1.3(p)							
			97	32	39	14			CL, SILTY CLAY, mottled tan and gr traces of organic matter, stif k= 1.4 X 10-7 cm/sec.
	10	3.3(p)							
		1.8(p)	105	21	37	20			
	15	3.3(p)		22	50	31			CH, CLAY, mottled tan and gray, traces of organic matter, very stiff
		2.8(p)							
		3.3(p)		24	53	31			
	20								Boring Completed

SHELBY TUBE

SPLIT SPOON

AUGER

NO RECOVERY

INITIAL WATER LEVEL

WATER LEVEL (AFTER 0.1 hr)

SPT- STANDARD PENETRATION TEST (BLOWS/FT)

P- POCKET PENETROMETER READING (TSF)

GID

REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING 9-10

PROJECT NO
DATE
BORING TYP
ENG./LOGGE

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.3(p)							CH, CLAY, brown and gray stiff
		1.5(p)		48	91	60			
	5	1.3(p)							
		0.8(p)	90	34	54	35			mottled gray and tan
		1.0(p)							CL, SILTY CLAY, gray and medium stiff
	10			31	44	25			
		1.8(p)							
		2.5(p)		23	52	36			CH, CLAY, gray and tan,
	15	2.5(p)							
			99	30	71	45			k= 2 X 10^{-9} cm/sec.
		1.3(p)	95	31	48	30			CL, SILTY CLAY, red, gra medium stiff
	20								
		3.3(p)							CH, CLAY, gray and tan,
		3.0(p)		28	65	46			
	25	4.3(p)							
		3.3(p)							CL, SILTY CLAY, tan and o
				28	42	20			
	30								
									CH, CLAY, gray and tan, v
		3.0(p)		38	89	62			
	35								
		3.8(p)		37	83	56			Boring Completed

SHELBY TUBE

SPLIT SPOON

AUGER

NO RECOVERY

INITIAL WATER LEVEL

WATER LEVEL (AFTER 0.1 hr)

SPT- STANDARD PENETRATION TEST (BLOWS/FT)

P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-11

PROJECT NO. 82-53
DATE 7/19
BORING TYPE
ENG./LOGGER ASR

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.5(p)							CL, SILTY CLAY, brown and gray, w fragments to a depth of 10 fe medium stiff
		1.5(p)	70	50					
	5	2.0(p)	93	28	43	24			k = 8.9 X 10^{-8} cm/sec.
		3.5(p)							gray and tan, very stiff
	10	3.5(p)	103	22	42	18			
		3.5(p)							
	15	3.0(p)							
		3.5(p)							slickensided
		3.5(p)	100	24	37	14			silt pockets
	20	1.0(p)							ML, CLAYEY SILT, tan, soft
			87	33	69	47			CH, CLAY, light gray, slickensidec very stiff
	25	3.5(p)							k = 3.8 X 10^{-9} cm/sec.
		3.7(p)							light gray and tan
		3.5(p)	90	31	78	50			
	30	3.0(p)							
		4.0(p)							fine sand pockets in the inter 32 to 34 feet
	35	3.7(p)							
		4.0(p)	85	35	75	49			fine sand pockets

SHELBY TUBE

SPLIT SPOON

AUGER

NO RECOVERY

INITIAL WATER LEVEL

WATER LEVEL (AFTER 0.1hr)

SPT- STANDARD PENETRATION TEST (BLOWS/FT)

P- POCKET PENETROMETER READING (TSF)

GID

Boring Completed

REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING 8-12
PROJECT NO. 82
DATE 5/
BORING TYPE
ENG./LOGGER ML

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		0.5(p)							CH, CLAY, gray, wood to a dept 8 feet, soft
		0.8(p)							
	5								
		1.3(p)		40	86	62			
		1.5(p)		47	82	58			
	10			28	46	26			CL, SILTY CLAY, gray and tan, t of organic matter, medium s
		2.3(p)							
	15	2.3(p)		25	34	14			
		0.5(p)	99	25	37	20			
		2.5(p)		20	46	29			
	20	2.5(p)		27	36	16			
		2.8(p)							
	25	2.3(p)	100	27	61	44			CH, CLAY, mottled tan and gray, traces of organic clay, stiff
		2.8(p)							
		3.3(p)							
	30								CL, SILTY CLAY, mottled tan and g silt and fine sand lenses, v stiff
			106	26	37	16			k= 3.2 X 10^{-6}
	35								CH, CLAY, gray and tan, very stiff
		2.8(p)		38	72	46			Boring Completed

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.2hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-13

PROJECT NO. 82-530
DATE 7/21/82
BORING TYPE
ENG./LOGGER ASR/MH

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.5(p)							CH, CLAY, brown and gray, wood fragments to a depth of 6 feet, medium stiff
		1.5(p)							
	5	1.5(p)							
		2.0(p)	85	31	91	63			gray and tan
		1.0(p)							
	10	1.0(p)							
		1.5(p)							CL, SILTY CLAY, gray and tan, medium stiff
	15		105	23	32	14			k= 4.0 X 10^{-7} cm/sec.
		2.5(p)							stiff, slickensided
		3.0(p)							
	20	3.0(p)							very stiff
		3.5(p)	96	28	56	32			CH, CLAY, tan and light gray, very stiff
	25	3.5(p)							
		3.7(p)							
		2.0(p)	88	33	81	48			silt pockets
	30	4.0(p							
		3.5(p							CL, SILTY CLAY, light gray, fine sand pockets, very stiff
	35		99	24	31	11			k= 2.8 X 10^{-9}cm/sec.
		3.5(p							
		4.0(p							Boring Completed

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1 hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-14

PROJECT NO. 82-530
DATE 7/22/82
BORING TYPE
ENG./LOGGER ASR/MH

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		2.0(p)							CH, CLAY, dark gray, wood fragment to a depth of 8 feet, stiff
		1.7(p)							
	5	1.7(p)	73	51	103	71			
		1.7(p)							silt streaks, medium stiff
		1.7(p)							
	10	2.5(p)							
		2.0(p)							CL, SILTY CLAY, tan and gray, medium stiff
	15	2.5(p)	99	23	49	25			
		1.7(p)							fine sand pockets, stiff
		3.5(p)							traces of organic matter
	20	3.0(p)							
			86	34	38	14			k= 4.6 X 10^{-7} cm/sec.
	25	3.7(p)							CH, CLAY, tan and gray, slickensid very stiff
		3.5(p)							
		3.0(p)	96	24	63	41			
	30	3.0(p)							
		4.0(p)							
	35	3.7(p)							
		4.0(p)							
			90	31	43	21			CL, SILTY CLAY, tan and gray, very stiff k = 1.0 X 10^{-7} cm/sec.

Boring Completed

REMARKS:

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-15

PROJECT NO. 82-530
DATE 7/19/82
BORING TYPE
ENG./LOGGER ASR/MH

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		2.7(p)							CH, CLAY, tan and gray, wood fragmen stiff
		1.5(p)							
	5	1.5(p)							CL, SILTY CLAY, tan, medium stiff
			99	26	37	15			k= 6.2 X 10^{-7} cm/sec.
		2.5(p)							
	10	3.5(p)	102	22	31	9			
		3.5(p)	103	22					CH, CLAY, tan and gray, stiff
	15	3.0(p)							
		2.0(p)							CL, SILTY CLAY, tan and gray, sil and fine sand lenses, stiff
		3.2(p)	97	26	39	15			
	20	2.7(p)							
		2.0(p)	85	35					ML, CLAYEY SILT, tan, medium stiff
	25								CH, CLAY, gray and tan, very stiff
		3.0(p)							
		3.0(p)							CL, SILTY CLAY, gray and tan, stiff
	30	2.5(p)							
		4.0(p)							CH, CLAY, tan and gray, very stiff
	35	3.5(p)	93	27	55	28			
		4.0(p)							
		3.5(p)							Boring Completed

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1 hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

GID

REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-16

PROJECT NO. 82-53C
DATE 8/9/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID. LIMIT (%)	PLASTICITY INDEX (%)	SYMBOL	PROFILE	DESCRIPTION
		1.7(p)							CL, SILTY CLAY, gray and tan, trac of organic matter, medium stif
		1.7(p)							
	5	1.7(p)							CH, CLAY, gray, traces of organic matter, medium stiff
		1.5(p)	84	33	62	38			
		1.5(p)							gray and tan
	10	3.0(p)							stiff
		3.0(p)							very stiff
	15	3.0(p)	105	20	45	28			CL, SILTY CLAY, tan and gray, traci of organic matter, very stiff
		2.0(p)							
		2.7(p)		25					ML, CLAYEY SILT, tan and gray, stii
	20	0.7(p)	94	62	31	8			
		1.2(p)							medium stiff
	25	3.5(p)							CH, CLAY, tan and gray, traces of organic matter, very stiff
		3.0(p)							
		2.7(p)							
	30	2.2(p)							
		2.7(p)							
	35	4.2(p)							
		3.0(p)							
		3.5(p)	83	35	84	52			k= 4.4 X 10^{-8} cm/sec.

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1 hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-16 (cont'd)

PROJECT NO. 82-530
DATE 8/9/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CH, CLAY, tan and gray, very stiff
	45	3.2(p)							
	50	4.0(p)							silt traces in the interval 48 to 55 feet
	55	2.0(p)							
	60	3.2(p)	84	34	70	41			
	65	2.5(p							CL, SILTY CLAY, gray, very stiff
	70		103	23	33	13			$k = 4.4 \times 10^{-7}$ cm/sec.
	75	4.0(p							
		3.0(p	95	24	48	22			

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER_____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-16 (cont'd)
PROJECT NO. 82-530
DATE 3/9/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CH, CLAY, gray and tan, very stiff
	85								
	90								
	95								
	100	3.2 (p)	90	29	70	48			
	105								
	110								
	115								
		3.5(p)	91	25	67	51			

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-16 (cont'd)
PROJECT NO. 82-530
DATE 8/10/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SYMBOL	PROFILE	DESCRIPTION
									CH, gray and tan, very stiff
	125								
	130								
	135								
	140								
		3.5(p)	94	30		N.P.			ML, CLAYEY SILT, gray, fine sand lenses, very stiff
	145								CL, SILTY CLAY, gray, very stiff
	150								
	155								
		2.0(p)	97	26	30	9			silt lenses, medium stiff

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-16 (cont'd)
PROJECT NO. 82-530
DATE 8/10/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CL, SILTY CLAY, gray, stiff
	165								
	170								
	175								
	180								
	185								
	190								
	195								
		2.2(p)	90	29	51	28			CH, CLAY, gray, stiff

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-16 (cont'd)

PROJECT NO. 82-530
DATE 8/11/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CH, CLAY, gray, stiff
	205								
	210								
	215	SPT 50/6"							SP, GRAVELLY SAND, very dense
									Boring Completed
	220								

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT).
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-17
PROJECT NO. 82-530
DATE 8/9/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SYMBOL	PROFILE	DESCRIPTION
		0.7(p							CH, CLAY, gray and tan, traces o organic matter, medium stiff
		1.2(p							
	5	2.5(p)							CL, SILTY CLAY, gray and tan, tr of organic matter, medium st
		1.2(p)	93	28	33	8			
		1.0(p)							
	10	2.2(p)							
		2.5(p)	101	23	51	33			CH, CLAY, tan and gray, traces c organic matter, very stiff
	15	2.2(p)							
		3.0(p)							
			91	32	36	13			CL, SILTY CLAY, tan and gray, t of organic matter, very sti k= 1.5 X 10^{-6} cm/sec.
	20	1.5(p)							
		2.5(p)							CH, CLAY, gray and tan, traces c organic matter, very stiff
	25	2.2(p)							
		2.7(p							
	30	3.5(p							
		1.2(p							CL, SILTY CLAY, gray and tan, t of organic matter, very sti
	35	2.7(p	92	27	38	15			
		1.7(p							CH, CLAY, gray and tan, traces organic matter, very stiff
		2.7(p							

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

GID

REMARKS: Boring Completed

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-18
PROJECT NO. B2-530
DATE 7/23/82
BORING TYPE
ENG./LOGGER ASR/MM

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SYMBOL	PROFILE	DESCRIPTION
		1.0(p)							CH, CLAY, brown, medium stiff
		2.0(p)							gray
	5	1.5(p)							
		1.7(p)							
		1.5(p)	92	31	43	21			CL, SILTY CLAY, tan and gray, stiff
	10	2.5(p)							
		2.7(p)							traces of organic matter at 12 to 14 foot depth and wood fragments at 14 to 16 foot depth
	15	2.5(p)							
		3.0(p)							
		4.0(p)	97	26	32	10			
	20	2.7(p)							
		2.7(p)							CH, CLAY, gray and tan, traces of organic matter to a depth of 26 feet
	25	3.0(p)							
		4.0(p)							
		3.0(p)							
	30	3.5(p)							
			96	27	35	24			CL, SILTY CLAY, gray and tan, very stiff → $k = 2.8 \times 10^{-8}$ cm/sec.
	35	3.0(p)							CH, CLAY, gray and tan, traces of organic matter, very stiff
		4.0(p)							
		4.0(p)							

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

GID

REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-18 (cont'd)

PROJECT NO. B2-53C
DATE 7/23/8
BORING TYPE
ENG./LOGGER ASR/HP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CH, CLAY, tan and gray, traces of organic matter to a depth of 45 feet, very stiff
	45	3.7(p)	87	33	62	36			
	50		80	40	57	39			k = 1.0 X 10^{-7} cm/sec.
	55	1.7(p)							silt and fine sand lenses in interval 54 to 58 feet
	60	4.0(p)	93	28	55	29			
	65	4.0(p)							
	70	4.0(p)							
	75	4.0(p)	94	28	51	25			
		4.0(p)							Boring Completed.

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
BORING B-19
LOCATION: Sorrento, Louisiana

PROJECT NO. B2-530
DATE 8/5/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.0(p)							CH, CLAY, gray and tan, traces of organic matter, medium stiff
		1.0(p)							
	5	1.5(p)	91	30	66	44			
		1.2(p)							CL, SILTY CLAY, gray and tan, traces of organic matter, medium stiff
		1.2(p)	91	31	36	12			
	10								
		1.5(p)							
		2.0(p)							
	15	1.7(p)							
		3.5(p)							stiff
			101	27	34	12			k= 4.3 X 10^{-6} cm/sec
	20								
		3.0(p)							very stiff
		3.0(p)							CH, CLAY, gray and tan, stiff
	25	2.5(p)							
		2.5(p)							
			90	35	73	45			slickensided k = 6.7 X 10^{-8}cm/
	30								
		2.5(p)							ML, CLAYEY SILT, tan, fine sand lenses, stiff
		2.5(p)							
	35	3.5(p)		29					
		3.0(p)							CH, CLAY, tan and gray, traces of organic matter, very stiff
		2.5(p)	84	34	67	40			

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS: Boring Completed

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-20
PROJECT NO. 82-53
DATE 7/20/
BORING TYPE
ENG./LOGGER ASR/M

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		2.5(p)							CH, CLAY, brown, wood fragments, very stiff
		2.5(p							
	5	1.5(p	82	39	99	65			medium stiff
		2.0(p)							stiff
		2.2(p)							CL, SILTY CLAY, tan and gray, medium stiff
	10	2.5(p)	99	24	38	10			
		2.5(p)							CH, CLAY, tan and gray, very sti
	15	1.5(p)							
		3.0(p)							slickensided
		3.0(p)							
	20		93	32	57	29			k= 3.8 X 10^{-8} cm/sec.
		3.5(p)							
	25	3.5(p)	107	22					
		4.0(p)							
			95	27	45	27			CL, SILTY CLAY, light gray, sti
	30	3.0(p)							k = 8.0 X 10^{-8} cm/sec.
		2.7(p)	99	25	32	4			ML, CLAYEY SILT, gray and tan,
	35	2.7(p)							
		3.5(p							CH, CLAY, tan and gray, very st
		3.5(p	82	38	84	54			Boring Completed

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-21
PROJECT NO. 82-530
DATE 8/5/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.2(p							CL, SILTY CLAY, tan and gray, traces of organic matter, medium stiff
		1.0(p							
	5	1.2(p	93	28	45	26			
		2.5(p							stiff
		2.5(p)							
	10	2.0(p)							
		2.7(p)							very stiff
	15		106	22	37	18			k= 3.1 X 10^{-7} cm/sec.
		3.5(p)							silt lenses
		2.5(p)	88	31	51	25			CH, CLAY, tan and gray, traces of organic matter, very stiff
	20	3.0(p)	92	32					
		2.7(p)							
	25		93	31	64	41			k = 1.4 X 10^{-8} cm/sec.
		3.2(p)							
		3.0(p)	77	42	86	50			
	30	3.2(p)							
		2.7(p)							
	35	3.2(p)							
		2.5(p	94	28	44	23			CL, SILTY CLAY, gray and tan, trace of organic matter, very stiff
		3.2(p							Boring Completed

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1 hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-22
PROJECT NO. 82-530
DATE 9/2/82
BORING TYPE
ENG./LOGGER ASR/MCC

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		3.5(p)							CH, CLAY, brown, very stiff
		3.0(p)							
	5	2.0(p)							silt pockets
			87	32	48	26			CL, SILTY CLAY, gray and tan, medi stiff
		0.7(p)							
	10								soft
		0.5(p)	98	27					
		2.2(p)	97	25	35	16			medium stiff
	15	1.2(p)							CH, CLAY, light gray and tan, very stiff
		4.0(p)							
		2.0(p)	91	29	61	34			slickensided
	20	1.2(p)							
	25	2.7(p)							
		3.0(p)							
			95	29	51	28			k= 5.4 X 10^{-7} cm/sec.
	30	3.5(p)							
		2.7(p)							CL, SILTY CLAY, tan and light gra slickensided, very stiff
	35	2.5(p)							
		2.5(p)							
			94	31	40	18			silt lenses k = 2.4 X 10^{-6} cm

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

Boring Completed
REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-23
PROJECT NO. 82-530
DATE 7/27/82
BORING TYPE
ENG./LOGGER ASR/MM

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.0(p)							CH, CLAY, brown, traces of organic matter, medium stiff
		2.0(p)							
	5	2.0(p)							
		2.0(p)							CL, SILTY CLAY, tan, medium stiff
			98	27	35	12			k= 3.5 X 10^{-7} cm/sec.
	10	3.0(p)							very stiff
		4.0(p)							
	15	2.7(p)	101	22	45	24			
		3.0(p)							
		2.0(p)	92	29	34	8			ML, CLAYEY SILT, tan, medium stiff
	20	2.7(p)							
		3.0(p)							CH, CLAY, tan and gray, traces of organic matter, very stiff
	25	3.0(p)							
		2.7(p)							
		3.0(p)	94	28	67	43			silt traces in the interval 30 to 34 feet
	30	3.0(p)							
		2.7(p)							
	35	2.7(p)							
		3.7(p)							Boring Completed

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-24
PROJECT NO. 82-530
DATE 8/30/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.0(p							CH, CLAY, brown and gray, traces o organic matter, stiff
		1.0(p							
	5	1.2(p	81	39	78	53			
		1.2(p							
		1.5(p)							CL, SILTY CLAY, tan and light gra medium stiff
	10	1.7(p)							
		3.0(p)							
	15	1.7(p)	107	18	44	25			stiff
		2.7(p)							CH, CLAY, tan and gray, silt trac very stiff
		2.7(p)							
	20	2.5(p)							slickedsided
			104	25	55	37			k= 2.7 X 10^{-8} cm/sec.
	25	4.0(p)							
		3.0(p)	106	21					traces of organic matter
		4.0(p)							
	30	3.7(p)							
		3.2(p							
	35	2.5(p	95.	27.	36.	13.			CL, SILTY CLAY, light gray and ti traces of organic matter, ve stiff
		2.0(p							
			107.	22.	59.	35.			CH, CLAY, tan and gray, traces o organic matter, very stiff

REMARKS: k = 7.8 X 10^{-9} cm

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1 hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING-(TSF)

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-24 (cont'd)
PROJECT NO. 82-530
DATE 8/30/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	PROFILE	DESCRIPTION
	45	1.0(p)						CH, CLAY, tan and gray, traces of organic matter, very stiff
	50	2.2(p)						CL, SILTY CLAY, bluish gray, very stiff
	55	1.2(p)	102	22	33	12		
	60	2.2(p)						
	65	2.2(p)						CH, CLAY, bluish gray, silt traces, very stiff
	70	3.0(p)	87	33	51	28		
	75	4.2(p						fine sand pockets
		2.0(p						gray, medium stiff

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER ____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

Boring Completed
REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-25
PROJECT NO. 82-530
DATE 9/2/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SYMBOL	PROFILE	DESCRIPTION
		2.2(p)							CH, CLAY, brown and gray, traces of organic matter, stiff
		1.2(p)							
	5	1.5(p)							
		1.0(p)	69	50	114	76			medium stiff
		1.5(p)							
	10	1.5(p)	87	36					
		1.7(p)							silt traces, stiff
	15	2.5(p)	93	25	50	31			
		2.0(p)							
		2.5(p)							
	20	2.5(p)							
		1.0(p)							ML, CLAYEY SILT, tan, traces of fin sand, medium stiff
	25	3.5(p)	99	24	25	N.P.			
		1.7(p)							
		2.7(p)							CH, CLAY, tan and gray, slickenside very stiff
	30	2.5(p)							
		2.7(p)	94	31	67	38			k = 2.5 X 10^{-9} cm/sec.
	35	3.0(p)							
		3.2(p)							
		3.5(p)							

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.2hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

Boring Completed
REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-26
PROJECT NO. 82-530
DATE 9/9/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.2(p)							CH, CLAY, gray and tan, traces of organic matter, medium stiff
		1.2(p)							
	5	0.5(p)	77	40	69	51			silt traces, soft
		1.0(p)							
		1.2(p)							CL, SILTY CLAY, tan and light gray, traces of organic matter, soft
	10	1.0(p)							
		1.7(p)	103	22	47	30			medium stiff
	15	2.2(p)							stiff
		3.2(p)							very stiff
		3.0(p)							
	20	3.8(p)							
		3.5(p)	105	21	42	26			k= 1.6 X 10^{-7} cm/sec.
	25	3.5(p)							
		2.5(p)							
		2.2(p)							
	30	2.0(p)							ML, CLAYEY SILT, tan and gray, some fine sand, stiff
		2.5(p)	97	25		N.P.			
	35	3.0(p)							CH, CLAY, gray and tan, traces of organic matter, slickensided, very stiff
		3.2(p)							
		3.2(p)	78	42	90	59			

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

Boring Completed
REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-27

PROJECT NO. 82-530
DATE 7/20/82
BORING TYPE
ENG./LOGGER ASR/MM

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		2.5(p)							CH, CLAY, brown, wood fragments, very stiff
		2.0(p)							
	5	2.0(p)	91	28	57	35			gray and tan
		1.5(p)							
		2.5(p)							silt pockets
	10								
		3.0(p)							CL. SILTY CLAY, gray and tan, very stiff
			101	23	43	26			k= 5.0 X 10^{-8} cm/sec.
	15	2.5(p)							CH, CLAY, light gray and tan, slickensided, very stiff
		3.5(p)							
		3.5(p)	84	35	85	51			
	20								
		2.5(p)							
		3.0(p)							
	25	3.5(p)							silt seams
		4.0(p)							
		2.5(p)	92	26	32	8			ML, CLAYEY SILT, tan, stiff
	30								
		3.5(p)							
	35	3.0(p)							CH, CLAY, tan and gray, silt lenses, stiff
		3.0(p)							
		3.0(p)							very stiff

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS: Boring Completed

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-20
PROJECT NO. 82-530
DATE 9/2/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		2.2(p)							CH, CLAY, dark gray and tan, traces of organic matter, very stiff
		2.2(p)							
	5	1.7(p)	74	45	83	51			
		1.5(p)							stiff silt traces
		2.0(p)							
	10	2.5(p)							CL, SILTY CLAY, tan and light gray, traces of organic matter, stiff
		2.0(p)	95	25	37	17			
	15	2.7(p)							very stiff
		2.5(p)							
		3.2(p)							
	20	3.7(p)							
		4.0(p)							tan
	25	3.2(p)	104	22	47	31			
		3.5(p)							CH, CLAY, tan and light gray, traces of organic matter, very stiff
		3.5(p)							
	30	4.0(p)							
		1.7(p)							
	35	4.0(p)							
		3.2(p)	92	31	74	46			k= 2.1 X 10^{-8} cm/sec.
		3.5(p)							slickensided

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.2hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

GID

Boring Completed
REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-29
PROJECT NO. 82-547
DATE 9/9/82
BORING TYPE
ENG./LOGGER ASR/JI

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SYMBOL	PROFILE	DESCRIPTION
		1.5(p)							CH, CLAY, brown and gray, traces o organic matter, medium stiff
		1.0(p)							
	5	1.0(p)	85	31	60	39			
		1.5(p)							gray and tan, stiff
		0.2(p)							soft
	10								
		2.0(p)							CL, SILTY CLAY, tan and gray, traci of organic matter, medium stif k= 4.0 X 10⁻⁸ cm/sec.
		2.0(p)	107	22	38	19			
	15	2.7(p)							
		3.7(p)							CH, CLAY, mottled tan, gray, and r traces of organic matter, very stiff
		4.5(p)	92	29					
	20	3.5(p)	85	35	68	40			
		3.2(p)							tan and light gray, cemented particles in the interval 22 t 26 feet
	25	3.0(p)							
		3.0(p)							
		3.5(p)							slickensided
	30								
		4.5(p)							
		3.5(p)							
	35	4.0(p)	78	42	76	45			
		3.0(p)							
		2.2(p)							

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.2 hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS: Boring Completed

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-31

PROJECT NO. 82-530
DATE 7/21/82
BORING TYPE
ENG./LOGGER ASR/M

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.5(p)							CL, SILTY CLAY, tan, traces of organ matter, wood fragments to a depti of 6 feet, medium stiff
		1.7(p)							
	5	1.7(p)							
		1.5(p)							
		2.7(p)	101	22	46	26			stiff
	10	2.0(p)							CH, CLAY, tan and gray, stiff
		2.7(p)							
	15		103	24	55	35			k= 5.2 X 10^{-8} cm/sec.
		3.0(p)	99	21					very stiff
		3.0(p)							
	20	2.5(p)							gray, traces of organic matter
		2.5(p)							
	25	3.5(p)	101	23	53	34			
		3.5(p)							
		4.0(p)							silt lenses in the interval 28 to 30 feet
	30	3.5(p)							
	35	3.7(p)							
		3.5(p)							
		3.5(p)	94	27	90	59			

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

Boring Completed
REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-32

PROJECT NO. B2-530
DATE 9/7/82
BORING TYPE
ENG./LOGGER ASR/MCC

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.0(p)							CL, SILTY CLAY, brown and dark gray, silt pockets, medium stiff
		1.2(p)							
	5	1.2(p)	92	29	46	28			
		1.5(p)							
		1.0(p)							
	10								
		1.2(p)							
		1.2(p)							CH, CLAY, tan and light gray, stiff
	15								
		2.0(p)							mottled red, brown and light gray, slickensided, very stiff
		3.0(p)	89	32	56	35			
	20								
		1.7(p)	107	21					tan and light gray
		3.0(p)							
	25	2.7(p)							
		3.2(p)							
		3.2(p)	95	28	67	39			k = 7.5 X 10^{-7} cm/sec.
	30								
		2.0(p)							ML, CLAYEY SILT, tan, stiff
		1.0(p)							very stiff
	35	2.7(p)							
		3.0(p)							CH, CLAY, tan and light gray, slickensided, very stiff
		2.7(p)	84	35	63	39			

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

GID

REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-32 (cont'd)

PROJECT NO. 82-530
DATE 9/7/82
BORING TYPE
ENG./LOGGER ASR/HCC

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CH, CLAY, tan and light gray, silt lenses, very stiff
	45	3.2(p)							
	50	1.7(p)	80	39	68	44			k = 1.5 X 10^{-8} cm/sec.
	55	2.7(p)							greenish gray
	60	0.5(p)							ML, CLAYEY SILT, bluish gray, very stiff
	65	2.0(p)	83	35					SM-SP, SILTY SAND-SAND, bluish gray, very dense
	70								
	75			27					

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)

SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana

BORING B-32 (cont'd)

PROJECT NO. 82-530
DATE 9/7/82-9/8/82
BORING TYPE
ENG./LOGGER ASR/MCC

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									SM-SP, SILTY SAND-SAND, bluish gray very dense
	85								
	90								
									gray and tan
	95								
		SPT 89		15					
	100								
		SPT 66/6"							tan
	105								
		SPT 50/5"							
	110								
	115								

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-32 (cont'd)
PROJECT NO. 82-530
DATE 9/8/82
BORING TYPE
ENG./LOGGER ASR/MCC

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									SM-SP, SILTY SAND-SAND, tan, very dense
	125	3.0(p	98	25	41	22			CL, SILTY CLAY, bluish gray, silt and fine sand pockets, very stiff
	130								
	135								
		3.2(p	90	30	60	33			CH, CLAY, bluish gray, silt and fine sand pockets, very soft
	140								Boring Completed

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER ____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-33
PROJECT NO. 82-530
DATE 9/9/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SYMBOL	PROFILE	DESCRIPTION
		1.0(p)							CH, CLAY, gray and brown, traces of organic matter, medium stiff
		1.2(p)	69	49	85	56			
	5	1.0(p)							
		0.7(p)							gray and tan, silt traces at alternate depths, soft
		1.0(p)							
	10	2.2(p)	108	12	53	34			stiff k = 5.0 X 10^{-8} cm/sec.
		0.7(p)							soft
	15	2.7(p)							very stiff
		2.5(p)							
		3.5(p)	111	17					
	20	3.0(p)	90	30	63	40			
		3.2(p)							
	25	2.7(p)							
		3.2(p)							
		2.7(p)	99	24	65	42			
	30	2.5(p)							
		2.5(p)							ML, SANDY SILT, tan and gray, cl traces, very dense
	35	1.5(p)		25					
		2.5(p)							CH, CLAY, tan and gray, traces of silt and fine sand, very stif
		3.2(p)	81	38	85	50			

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1 hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

Boring Completed
REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-34
PROJECT NO. 82-530
DATE 9/1/82
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		0.7(p							CH, CLAY, brown and dark gray, traces of organic matter, medium stiff
		1.2(p							
	5	0.7(p							
		1.0(p)	97	25	51	31			tan and gray
		2.5(p)							very stiff
	10	1.7(p)							
		2.5(p)							
	15	2.2(p)							slickensided
		2.5(p)	99	24					
		2.0(p)							silt pockets in the interval 18 to 20 feet
	20	2.7(p)							
		3.0(p)	103	22	48	31			
	25	3.2(p)							
		3.0(p)							
		3.2(p)							
	30	4.0(p)							
			94	32	68	43			k= 1.5 X 10^{-8} cm/sec.
	35	1.0(p)							ML, CLAYEY SILT, gray, medium stiff
		1.5(p)							
									CL, SILTY CLAY, gray, very stiff

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 0.1 hr)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana
BORING B-34 (cont'd)
PROJECT NO. 82-
DATE 9/1
BORING TYPE
ENG./LOGGER ASR

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
	45	3.0(p)	94	27	35	13			CL, SILTY CLAY, gray, very stiff
		3.2(p)							
	50								CH, CLAY, light gray, very stiff
	55	3.7(p)	97	26	55	35			$k = 8.9 \times 10^{-8}$ cm/sec.
		3.0(p)							
	60								
	65	1.5(p)	93	27					ML, SANDY SILT, gray, traces of medium dense
	70	1.0(p)							SM, SILTY SAND, tan
	75	0.5(p)							
		0.2(p)		25					

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS: Boring Completed

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-35

PROJECT NO. 82-530
DATE 5/9/83
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		4.5 p							
		2.5 p	84	34					CH, CLAY, gray, traces of silt and organic matter, very stiff
		1.5 p	77	41					gray and tan, medium stiff
	5	1.2 p	79	39	75	50			
		1.2 p	78	43					
		1.5 p	77	42	76	50			
	10	1.5 p	90	31					CL, SILTY CLAY, gray and tan, traces of organic matter to a depth of 16 feet, medium stiff
		1.7 p	101	26	38	17			k = 3.9 X 10^{-8} cm/sec.
	15	1.5 p	89	38					
		2.0 p	100	25					stiff
		2.5 p	102	23					very stiff
	20								
		2.0 p	99	27	61	36			CH, CLAY, tan and gray, very stiff
	25								k = 1.1 X 10^{-9} cm/sec.
		3.0 p	85	36					
	30								
		3.5 p	90	32					traces of organic matter
	35								ML, CLAYEY SILT, tan and gray, stiff
		2.5 p	96	26	N.P.				
	40								

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 24 hr.)

SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID 6

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-35 (Continued)

PROJECT NO. 82-53
DATE 5/9/83
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CH, CLAY, tan and gray, very stiff
		2.5 p	80	40					
	45								Boring terminated at 45 feet.

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-36

PROJECT NO. B2-530
DATE 5/10/83
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		4.5 p							CH, CLAY, gray and tan, traces of silt and organic matter, stiff
		1.5 p	81	39					
		1.2 p	74	45					
▼	5	1.5 p	72	49	82	53			medium stiff
		1.2 p	75	44					wood fragments
		0.3 p	85	36					CL, SILTY CLAY, gray and tan, traces of organic matter, soft
	10								
▽		1.7 p	104	22	32	16			medium stiff
		3.2 p	106	23	51	34			CH, CLAY, tan and gray, silt traces, very stiff
	15	2.5 p	98	25					k = 4.8 X 10^{-9} cm/sec.
		3.0 p	87	33					traces of organic matter in the interval 16 to 20 feet
		3.0 p		37					red and gray
	20								
		2.7 p	89	33	69	46			k = 3.3 X 10^{-7} cm/sec.
	25								
		2.5 p	82	38					gray and tan
	30								
		3.0 p	85	36	76	52			
	35								
	40	3.0 p	85	35					traces of organic matter

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

▽ INITIAL WATER LEVEL
▼ WATER LEVEL (AFTER 10 min.)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID G

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-36 (Continued)

PROJECT NO. 82-530
DATE 5/10/83
BORING TYPE
ENG./LOGGER ASR/JE

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		2.5 p	85	35					CH, CLAY, tan, traces of silt and organic matter, very stiff
	45								Boring terminated at 45 feet.

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-37

PROJECT NO. 82-530
DATE 5/9/83
BORING TYPE
ENG./LOGGER ASR/J

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
▼		1.2 p	89	29					CH, CLAY, gray and tan, traces of silt and organic matter, stiff
		1.5 p							
		1.2 p	77	42	80	47			
	5	1.2 p	84	35					medium stiff
		1.0 p	83	37	62	41			
▽		1.0 p	93	30					silt lenses in the interval 8 to 10 feet, soft
	10	2.5 p	98	26					stiff
		3.0 p	102	23					very stiff
	15	3.0 p	105	21	63	40			k = 1.4 X 10^{-9} cm/sec.
		3.5 p	97	26					
		3.0 p	83	38	76	45			
	20	⋮							
		2.8 p	87	35					
	25								
		1.5 p	99	24					ML; CLAYEY SILT, tan, stiff
	30								
		3.2 p	88	33					CH, CLAY, gray and tan, traces of silt, very stiff
	35								
	40	3.0 p	84	36	57	33			k = 3.0 X 10^{-7} cm/sec.

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

▽ INITIAL WATER LEVEL
▼ WATER LEVEL (AFTER 24 hr.)
SPT- STANDARD PENETRATION TEST (BLOWS/FT).
P- POCKET PENETROMETER READING (TSF)

GID

REMARKS:

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-37 (Continued)

PROJECT NO. 82-53
DATE 5/9/83
BORING TYPE
ENG./LOGGER ASR/J

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CH, CLAY, tan and gray, traces of organic matter, very stiff
	45	2.5 p		25					

SHELBY TUBE

SPLIT SPOON

AUGER

NO RECOVERY

INITIAL WATER LEVEL

WATER LEVEL (AFTER _____)

SPT- STANDARD PENETRATION TEST (BLOWS/FT)

P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-38 (Continued)

PROJECT NO. 82-530
DATE 5/11/83
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									SI, SHELL, road fill
				11					CH, CLAY, gray and tan, shells to a depth of 4 feet, traces of organic matter, stiff
	5	1.7 p	73	46	96	62			
▼		1.2 p	71	47					
		1.2 p	66	56	105	70			
	10	1.0 p	64	59					medium stiff, silt traces
		1.2 p	66	53					stiff
	15	2.8 p	98	25	46	26			CL, SILTY CLAY, gray and tan, traces of organic matter, very stiff
▽		1.7 p	98	26					
	20	2.7 p	102	24	52	34			CH, CLAY, tan and gray, traces of organic matter, very stiff $k = 5.8 \times 10^{-9}$ cm/sec.
	25	2.8 p	102	23					
	30	4.5 p	98	25	36	18			CL, SILTY CLAY, tan and gray, silt lenses, very stiff
	35	3.2 p	85	36					CH, CLAY, tan, gray and red, very stiff
	40	1.7 p	94	28					ML, SANDY SILT, tan, dense

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

▽ INITIAL WATER LEVEL
▼ WATER LEVEL (AFTER 10 min)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID 6

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-38
(Continued)

PROJECT NO. 82-5
DATE 5/11/8
BORING TYPE
ENG./LOGGER ASR/

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									ML, SANDY SILT, tan, dense
		1.7 p	95	26					
	45								Boring terminated at 45 fee

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID G

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-39

PROJECT NO. 82-530
DATE 5/11/83
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P.	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		4.5+ p	103	22					CH, CLAY, gray and tan, traces of silt and organic matter, very stiff
		4.5 p							
		1.3 p	74	45					
▼	5	1.2 p	90	30	50	30			stiff
		1.3 p	88	33					
▽		1.0 p	92	30	38	15			CL, SILTY CLAY, tan and gray, silt lenses, soft
	10	1.6 p	99	24					CH, CLAY, tan and gray, traces of silt and organic matter in the interval 10 to 25 feet, stiff
		2.5 p	107	21	50	33			$k = 2.2 \times 10^{-9}$ cm/sec.
	15	2.7 p	101	24					very stiff
		3.5 p	99	25					
	20	3.0 p	86	34					silt pockets in the interval to 20 feet
	25	3.5 p	97	26					
		2.7 p	78	42					silt lenses in the interval 23 to 29 feet
	30								
	35	3.2 p	89	33	79	48			$k = 1.5 \times 10^{-7}$ cm/sec.
	40	4.0 p	89	32					traces of organic matter

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

▽ INITIAL WATER LEVEL
▼ WATER LEVEL (AFTER 10 min)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-39
(Continued)

PROJECT NO. 82-53
DATE 5/11/83
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		4.5 p	88	34	61	36			CH, CLAY, gray and tan, traces of organic matter, very stiff
	45								Boring terminated at 45 feet.

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill
LOCATION: Sorrento, Louisiana

BORING B-40
(Continued)

PROJECT NO. 82-530
DATE 5/12/83
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.0 p	77	42					CH, CLAY, gray and tan, silt traces, medium stiff
		1.3 p	77	41					
	5	1.3 p	72	46					gray
		1.2 p	66	54					
		2.0 p	98	28	48	27			CL, SILTY CLAY, tan and gray, traces of organic matter, medium stiff; k = 2.0 X 10^{-8} cm/sec.
	10	1.2 p	91	30					
		2.7 p	101	24	35	16			
	15	2.5 p	106	20					very stiff
		3.0 p	98	25					
		4.0 p	87	37	64	33			CH, CLAY, gray and red, very stiff; k = 1.0 X 10^{-7} cm/sec.
	20								
		2.0 p	94	28					silt lenses, traces of organic matter
	25								
		2.8 p	77	41	84	49			gray and tan; k = 3.2 X 10^{-7} cm/sec.
	30								
		2.5 p	76	44					
	35								
	40	3.0 p	95	26	32	5			ML, CLAYEY SILT, tan and gray, very stiff

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER 10 min)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID

BORING LOG

PROJECT NAME: Colonial Landfill

LOCATION: Sorrento, Louisiana

BORING B-40
(Continued)

PROJECT NO. 82-530
DATE 5/12/83
BORING TYPE
ENG./LOGGER ASR/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									ML, CLAYEY SILT, tan and gray, ve stiff
		2.2 p	96	26					
	45								Boring terminated at 45 feet.

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL (AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P- POCKET PENETROMETER READING (TSF)

REMARKS:

GID G

BORING LOG

PROJECT NAME: BFI/Colonial Landfill

BORING B-41

PROJECT Nº 85-504

DATE 2/15/85

BORING TYPE

ENG/LOGGER JP/ASR

LOCATION: Sorrento, Louisiana

U.S. ELEVATION _____ COORDINATES _____ N _____ E

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		0.7p	75	41					CH, CLAY, tan and gray, traces of orgainc matter, silt lenses, soft
		1.0p							
		0.7p							
		1.2p	81	35					
	5	0.7p							
		1.0p	90	26	56	34			
		1.0p	91	28					CL, SILTY CLAY, tan and gray, pockets of organic matter in the interval 6 to 8 feet, medium stiff
		1.2p							
			97	24	33	17			
	10	1.2p							
		1.2p							k = 7.7 X 10^{-7} cm/sec (8-10 ft.)
		2.0p	103	20					
		2.0p							
		3.2p	100	22					
	15	2.5p							
		2.2p	108	19					stiff
		2.5p							
		3.2p	103	21					silt lenses
		2.5p							
	20	2.5p	106	20	44	30			nodules of calcareous aggregate
		3.5p							
		3.2p	99	25					
		2.7p							
		3.2p	96	26					
	25	4.5p							
		4.0p	100	24					very stiff
		3.5p							
		4.5+p	97	25					
		3.2p							CH, CLAY, tan and gray, nodules of calcareous aggregate, very stiff
	30	3.75p	93	31	58	35			
		2.7p							
	35	3.7p	87	33					
		3.5p	97	25	57	37			k = 4.2 X 10^{-9} cm/sec

SHELBY TUBE

SPLIT SPOON

AUGER

NO RECOVERY

INITIAL WATER LEVEL

WATER LEVEL (AFTER _____)

SPT - STANDARD PENETRATION TEST (BLOWS/FT)

P - POCKET PENETROMETER READING (TSF)

GID

REMARKS:
Boring terminated at 40 feet. No water encountered to a depth of 14 feet. Wash boring was used below 14 feet.

PLATE Nº C-1

BORING LOG

PROJECT NAME: BFI/Colonial Landfill

PROJECT Nº 85-504

BORING B-42

DATE 2/15/85

LOCATION: Sorrento, Louisiana

BORING TYPE

ENG/LOGGER JP/ASR

G.S. ELEVATION _____ COORDINATES _____ N _____ E

ELEVATION (FEET)	DEPTH (FEET)	SPT or P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		0.7p	72	47					CH, CLAY, gray and tan, rootlets
		1.2p							depth of 2 feet, medium stiff
		1.2p	86	32					gray, traces of organic matte
		1.5p							
	5	1.2p	81	38	81	56			silt lenses
		1.2p	93	28					CL, SILTY CLAY, tan and gray, tra
		2.2p							of organic matter, medium sti
			103	24	36	17			
	10	1.2p							k = 5.2 X 10^{-8} cm/sec
		1.5p	101	20					
		1.7p							nodules of calcareous aggregat
		2.0p	106	19					10 to 12 feet
		2.5p							
	15	2.5p	107	18	45	31			stiff
		2.5p							
		2.5p	105	19					
		2.0p							
		2.2p	107	19					
	20	3.0p							
		1.7p	88	30					CH, CLAY, tan, gray and red, trace
		2.0p							of organic matter, stiff
		3.2p	93	27	66	41			
		3.5p							
	25	2.7p	98	24					gray and tan
		2.5p							
		2.7p	84	32					
		3.0p							
		3.0p	96	24					silt lenses
	30	1.5p							
	35	3.2p	89	34	71	40			k = 3.4 X 10^{-7} cm/sec Nodules of calcareous aggregat in the interval 34-40 feet
		4.5+p	93	27					very stiff
		4.0p							

SHELBY TUBE

SPLIT SPOON

AUGER

NO RECOVERY

INITIAL WATER LEVEL

WATER LEVEL (AFTER _____)

SPT - STANDARD PENETRATION TEST (BLOWS/FT)

P - POCKET PENETROMETER READING (TSF)

REMARKS:
Boring terminated at 40 fee
Surface water percolated in
the boring. No accurate gr
water measurement was made.

GID

PLATE Nº C-2

BORING LOG

PROJECT NAME: BFI/COLONIAL

BORING B-43

PROJECT NO. 88-507
DATE 4/14/88
BORING TYPE
ENG./LOGGER LH/JP

LOCATION: Sorrento, Louisiana

G.S. ELEVATION 0.2 MSL COORDINATES _____ N _____ E

ELEVATION (FEET)	DEPTH (FEET)	SPT OR P	DRY DENSITY (PCF)	MOISTURE CONTENT(%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.0p	72	47					CH, CLAY, gray with tan, traces of silt and wood, soft to medium
		1.0p							
		1.0p	87	31					
		2.0p							
	5	0.7p	93	25					CL, SILTY CLAY, tan, red and gray, medium to very stiff, traces of limestone in the interval 6 to 8 feet
		1.2p							
		1.0p	100	24					
		1.2p							
		1.2p	104	22	33	17			
▼	10	1.5p							
		2.7p							calcareous concretions in the interval 12 to 15 feet
		3.0p	104	22					
▽		3.0p							
	15	3.5p	101	24					
		3.5p							
		2.7p	84	27					silty in the interval 16 to 20 feet
		3.0p							
		3.0p	92	25					
	20	3.7p							
		2.0p	95	26					
		2.5p							
		3.0p	95	27					
		2.7p							
	25	2.5p	78	39					CH, CLAY, tan and gray, traces of silt and organic matter, medium to hard,
		3.7p	85	29					
		4.5p							
		2.7p	96	23					silty in the interval 26 to 27 feet
		2.7p							
	30	2.7p	79	41	99	67			clayey silt in the interval 27 to 28 feet
		3.5p							
		3.0p	79	36					
		3.0p							
		3.5p	87	33					
	35	2.5p	101	20					CL, SILTY CLAY, tan and gray, traces of organic matter, medium to very stiff
		3.7p							
		3.2p							$k_v = 1.1 \times 10^{-7}$ cm/sec (34-36')
		3.7p	82	34					clayey silt in the interval 34 to 36 and at 38 feet
		4.0p							

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

▽ INITIAL WATER LEVEL
▼ WATER LEVEL(AFTER 5 min)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P -POCKET PENETROMETER READING (TSF)

GDC

REMARKS:

PLATE NO.

BORING LOG

PROJECT NAME: BFI/COLONIAL

BORING B-43 (cont.)

LOCATION: Sorrento, Louisiana

G.S. ELEVATION _____ COORDINATES _____ N _____ E

PROJECT NO. 88
DATE 4/
BORING TYPE ___
ENG./LOGGER LH

ELEVATION (FEET)	DEPTH (FEET)	SPT OR P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
	45	2.7p 2.0p	102	18					
	50	2.5p 3.0p	99	24					
	55	4.2p 3.5p	92	28					
	60	4.0p 4.2p	88	29					Boring terminated at 60 feet

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL(AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P -POCKET PENETROMETER READING (TSF)

REMARKS:

GDC

PLATE NO.

BORING LOG

PROJECT NAME: BFI/COLONIAL
BORING B-44
LOCATION: Sorrento, Louisiana

PROJECT NO. 86-507
DATE 4/14/8
BORING TYPE
ENG./LOGGER LH/JP

G.S. ELEVATION 0.5 MSL COORDINATES _____ N _____ E

ELEVATION (FEET)	DEPTH (FEET)	SPT OR P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.2p 1.5p	70	48					CH, CLAY, gray, traces of silt, medium
		1.2p 1.5p	75	43					
	5	1.7p 1.7p	95	27					CL, SILTY CLAY, tan, orange and gray, traces of organic matter, medium to stiff
		3.0p 2.5p	100	24	43	27			
		2.7p 2.5p	106	22					ferrous concretions in the interval 12 to 14 feet
	10	2.2p 2.5p	103	23					
▼		3.2p 3.0p	99	23					
	15	2.7p 3.0p	92	28					CH, CLAY, tan, orange and gray, traces of silt and organic matt stiff to very stiff
▽		2.7p 2.5p	80	39	88	56			$k_v = 1.5 \times 10^{-7}$ cm/sec (18-20') $k_h = 7.2 \times 10^{-9}$ cm/sec
	20	2.5p 3.2p	96	27					silty clay in the interval 18 20 and 24 to 26 feet
		3.2p 3.0p	89	30	78	60			
	25	2.7p 2.7p 2.7p	101	23					
		2.7p 2.2p	105	23					ML, CLAYEY SILT, tan, soft to stiff
	30	1.2p 0.5p	104	15					wet at 30 feet
		1.2p 0.5p	98	26					
		4.0p 3.5p	93	28					CL, SILTY CLAY, tan, orange and gra traces of organic matter and fi sand at 37 feet, very stiff
	35	3.0p 3.0p	95	30					clayey silt in the interval 36 38 feet
		3.0p 3.0p	97	27					
		3.5p							

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

▽ INITIAL WATER LEVEL
▼ WATER LEVEL (AFTER 5 min)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P -POCKET PENETROMETER READING (TSF)

GDC

REMARKS:

PLATE NO.

BORING LOG

PROJECT NAME: BFI/COLONIAL

BORING B-44 (cont.)

LOCATION: Sorrento, Louisiana

PROJECT NO. 88-5
DATE 4/14
BORING TYPE
ENG./LOGGER LH/

G.S. ELEVATION _____ COORDINATES _____ N _____ E

ELEVATION (FEET)	DEPTH (FEET)	SPT OR P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
									CH, CLAY, tan and gray, traces o silt and organic matter, sti: to very stiff
		2.7p 3.7p	96	28					k_v = 3.0 X 10^{-7} cm/sec (38-4(
	45								
		4.0p 4.0p	110	20	46	30.			CL, SILTY CLAY, tan, red and gray very stiff
	50								
		3.2p 3.5p	101	24					
	55								
	60	3.7p	—	—	—	—			Boring terminated at 60 feet.

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL(AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P -POCKET PENETROMETER READING (TSF)

REMARKS:

PLATE NO.

GDC

BORING LOG

PROJECT NAME: BFI/COLONIAL
BORING B-45
LOCATION: Sorrento, Louisiana
G.S. ELEVATION 4.6 MSL COORDINATES _____ N _____ E

PROJECT NO. 88-507
DATE 4/14/88
BORING TYPE
ENG./LOGGER LH/JP

ELEVATION (FEET)	DEPTH (FEET)	SPT OR P	DRY DENSITY (PCF)	MOISTURE CONTENT(%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
		1.7p	98	26					CH, CLAY, tan and gray, traces of silt, medium to stiff
		3.2p							
		1.2p	82	38					silty clay in the interval 2 to 4 feet
		1.2p							
	5	1.2p	69	51					
		1.7p							
		1.2p	71	45	90	63			
		1.5p							
		1.0p	90	28					CL, SILTY CLAY, tan and gray, soft to stiff
▼	10	1.7p							
		1.0p	81	37					
		1.0p							
		1.2p	96	24					
		1.5p							
▽	15	1.7p	95	25	40	22			
		0.7p							
		3.0p	105	21					
		3.2p							
		2.2p	98	24					CH, CLAY, tan, red and gray, traces of silt, stiff
	20	3.0p							
		2.7p	80	39					
		2.5p							
		2.7p	87	32	85	60			
		3.0p							
	25								$k_v = 1.8 \times 10^{-8}$ cm/sec (24-26')
		2.7p							
		3.2p	96	26					
		2.7p							
		3.0p	95	27					
		3.0p							
	30	2.7p	93	28					CL, SILTY CLAY, tan, orange and gray, traces of organic matter, very stiff to hard
		3.7p							
		3.5p	83	33					
		3.5p							
	35	4.5 p	94	27					
		4.5p							
		4.5p	93	25					clayey silt, wet and soft in the interval 38 to 40 feet
		4.5p							
		1.0p	93	26					
		1.0p							

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

▽ INITIAL WATER LEVEL
▼ WATER LEVEL(AFTER 5 min.)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P -POCKET PENETROMETER READING (TSF)

GDC

REMARKS:

PLATE NO.

BORING LOG

PROJECT NAME: BFI/COLONIAL

BORING B-45 (cont.)

LOCATION: Sorrento, Louisiana

G.S. ELEVATION _____ COORDINATES _____ N _____ E

PROJECT NO. 88-5
DATE 4/14
BORING TYPE
ENG./LOGGER LH/J

ELEVATION (FEET)	DEPTH (FEET)	SPT OR P	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	SAMPLE	PROFILE	DESCRIPTION
	45	4.0p							CH, CLAY, tan and gray, traces c silt and organic matter, ver stiff k_v = 8.3 X 10^{-8} cm/sec (43- k_h = 4.4 X 10^{-7} cm/sec
	50	4.0p 3.7p	84	35					
	55	3.2p 4.5p	114	17					CL, SILTY CLAY, tan and gray, ve stiff to hard
	60	4.5p 4.2p	100	23					Boring terminated at 60 feet.

SHELBY TUBE
SPLIT SPOON
AUGER
NO RECOVERY

INITIAL WATER LEVEL
WATER LEVEL(AFTER _____)
SPT- STANDARD PENETRATION TEST (BLOWS/FT)
P -POCKET PENETROMETER READING (TSF)

REMARKS:

PLATE NO.

STE
Soil Testing Engineers, Inc.
1305 DISTRIBUTORS ROW, SUITE 1 • JEFFERSON, LOUISIANA 70123
PHONE (504) 835-2593 • FAX (504) 835-2982 • www.steofla.com

17 December 2004

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KEITH SPAMPNETO

REGISTERED PROFESSIONAL ENGINEERS

CDM
2021 Lakeshore Drive
Suite 100
New Orleans, LA 70122

Attn: Mr. Bob Batherson
PN: (504) 832-7272
FN: (504) 832-7282

Re: Summary of Field & Laboratory Services - Transmittal of Data
Colonial Landfill
Permit Renewal
Sorrento (Ascension Parish), LA
STE File: 04-3010

Dear Bob,

As you requested, we are pleased to submit this summary letter of our services for the referenced project. STE has completed an exploration and laboratory testing of the subsurface conditions for a proposed lateral expansion of BFI's Colonial Landfill located in Sorrento, Louisiana. Reference is made to our signed contract with CDM for the project dated 2 May 2004.

1.0 INTRODUCTION & GENERAL WORK SCOPE

As you know, STE was under contract with CDM to perform the necessary soil borings and laboratory tests for the proposed lateral expansion and permit renewal. Our scope of work for the contract consisted of performing thirty-eight (38) soil borings and CPT soundings (20 soil borings and 18 CPT soundings), installation of 6 temporary piezometers (3 to 30 feet and 3 to 60 feet), installation of 2 monitor wells (each to 50 feet deep), performing soils laboratory testing, and providing assistance and oversight of various geotechnical engineering tasks. CDM was to perform the actual geotechnical engineering analyses and landfill design required for the permit renewal.

We understand the CDM contract and work for the project has been halted by BFI. To date, STE completed all required CPT soundings, 19 of the required 20 soil borings, installed 5 of the proposed 6 piezometers, installed the required 2 monitor wells, completed all assigned (to date) laboratory tests, and consulted on engineering issues for various project meetings.

STE
Soil Testing Engineers, Inc.

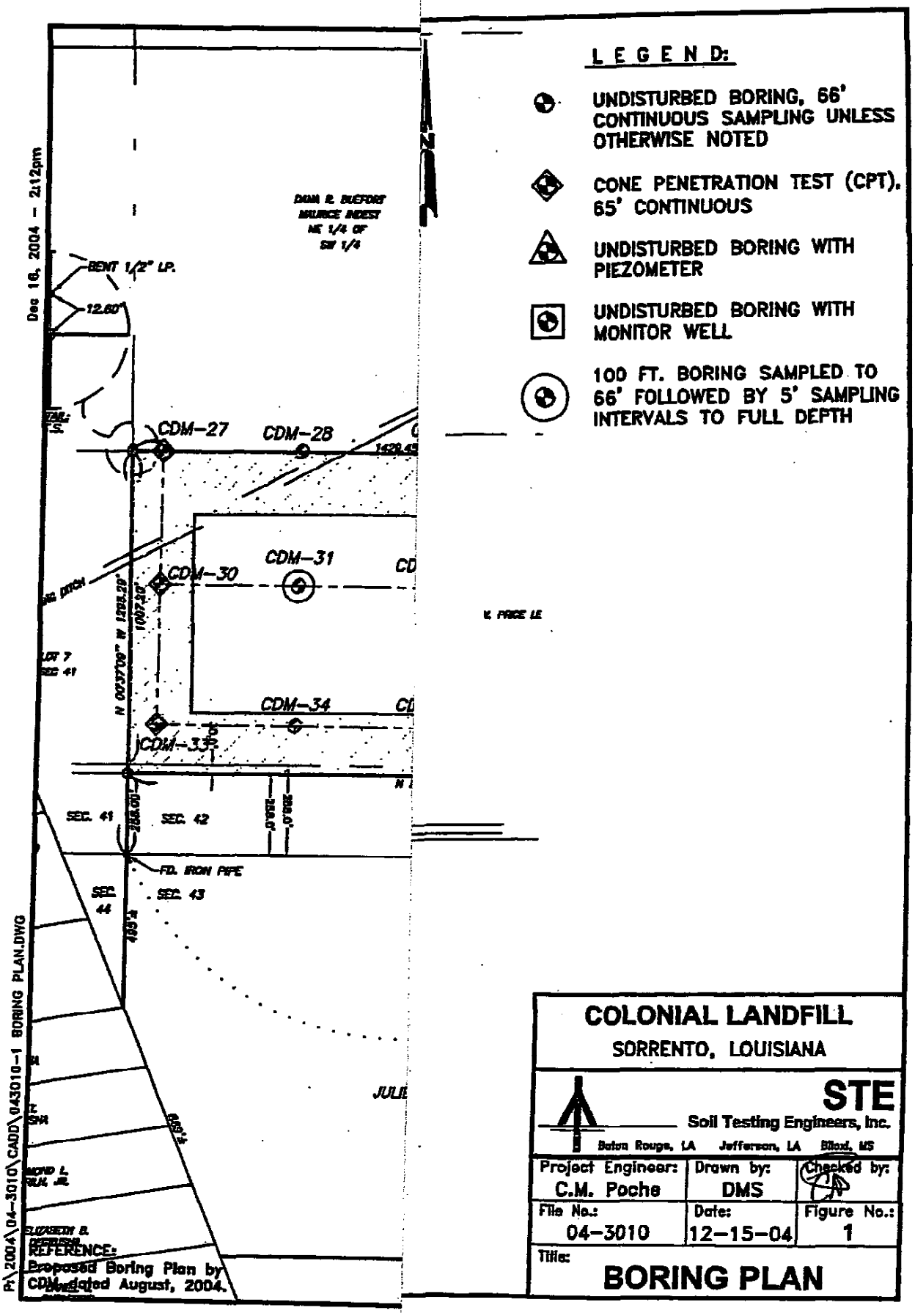
CDM

SOIL BORING/CPT SOUNDING NO.	LATITUDE	LONGITUDE	GROUND SURFACE ELEVATION (FT, NGVD)	BORING/CPT DEPTH (FEET BELOW GROUND SURFACE)
CDM-1	30° 8' 32.8"	90° 51' 53.5"	2.8	100
CDM-2*	30° 8' 32.8"	90° 51' 48.1"	2.5	66
CDM-3	30° 8' 32.8"	90° 51' 43.0"	1.4	66
CDM-4*	30° 8' 32.8"	90° 51' 37.9"	2.6	66
CDM-5	30° 8' 32.8"	90° 51' 32.8"	2.4	66
CDM-5A*	30° 8' 32.1"	90° 51' 32.8"	2.7	66
CDM-6*	30° 8' 32.9"	90° 51' 27.6"	2.1	66
CDM-8*	30° 8' 28.5"	90° 51' 53.3"	2.9	66
CDM-9	30° 8' 28.5"	90° 51' 48.2"	2.4	66
CDM-10*	30° 8' 28.5"	90° 51' 43.0"	2.1	66
CDM-11	30° 8' 28.5"	90° 51' 37.9"	2.3	100
CDM-12*	30° 8' 28.4"	90° 51' 32.8"	2.2	66
CDM-13	30° 8' 28.4"	90° 51' 27.6"	2.4	66
CDM-14*	30° 8' 28.4"	90° 51' 22.5"	2.4	66
CDM-15	30° 8' 24.1"	90° 51' 53.3"	2.4	66
CDM-15A*	30° 8' 24.7"	90° 51' 53.3"	2.7	66
CDM-16*	30° 8' 24.0"	90° 51' 48.2"	2.4	66
CDM-17	30° 8' 24.0"	90° 51' 43.0"	2.2	66
CDM-18*	30° 8' 24.0"	90° 51' 37.9"	2.2	66
CDM-19	30° 8' 24.0"	90° 51' 32.8"	2.6	66
CDM-19A*	30° 8' 24.6"	90° 51' 32.8"	2.2	66
CDM-20*	30° 8' 24.0"	90° 51' 27.7"	2.5	66
CDM-21	30° 8' 24.0"	90° 51' 22.5"	1.6	100
CDM-22	30° 8' 22.6"	90° 51' 53.3"	1.9	66
CDM-23	30° 8' 20.0"	90° 51' 32.8"	2.5	66
CDM-24**	30° 8' 20.1"	90° 51' 20.9"	1.9	66
CDM-25**	30° 8' 20.1"	90° 51' 37.1"	2.8	66
CDM-26	30° 8' 20.0"	90° 51' 27.7"	2.6	66
CDM-27*	30° 8' 32.8"	90° 52' 8.6"	5.3	66
CDM-28	30° 8' 32.8"	90° 52' 3.5"	5.3	66
CDM-29*	30° 8' 32.8"	90° 51' 58.4"	5.0	66
CDM-30*	30° 8' 28.6"	90° 52' 8.7"	5.1	66
CDM-31	30° 8' 28.6"	90° 52' 3.5"	5.4	100
CDM-32	30° 8' 28.5"	90° 51' 58.4"	5.1	66
CDM-33*	30° 8' 24.1"	90° 52' 8.7"	4.2	66
CDM-34	30° 8' 24.1"	90° 52' 3.5"	4.8	66
CDM-35*	30° 8' 24.1"	90° 51' 58.4"	4.7	66

* Denotes CPT sounding.

** Denotes boring drilled for monitor well installation.

BEST COPY


LEGEND:
UNDISTURBED BORING, 66' CONTINUOUS SAMPLING UNLESS OTHERWISE NOTED
CONE PENETRATION TEST (CPT), 65' CONTINUOUS
UNDISTURBED BORING WITH PIEZOMETER
UNDISTURBED BORING WITH MONITOR WELL
100 FT. BORING SAMPLED TO 66' FOLLOWED BY 5' SAMPLING INTERVALS TO FULL DEPTH
CDM-27
CDM-28
CDM-30
CDM-31
CDM-34
CDM-33
SEC. 41
SEC. 42
SEC. 43
SEC. 44
FD. IRON PIPE
BENT 1/2" I.P.
12.60'
W. PAGE LE
REFERENCE:
Proposed Boring Plan by CDM, dated August, 2004.
COLONIAL LANDFILL
SORRENTO, LOUISIANA
STE
Soil Testing Engineers, Inc.
Baton Rouge, LA Jefferson, LA Biloxi, MS
Project Engineer: C.M. Poche
Drawn by: DMS
Checked by:
File No.: 04-3010
Date: 12-15-04
Figure No.: 1
Title: BORING PLAN
P:\2004\04-3010\CADD\043010-1 BORING PLAN.DWG
Dec 16, 2004 - 2:12pm

APPENDIX A

STE
Soil Testing Engineers, Inc.

APPENDIX A

FIELD (UNDISTURBED SOIL BORINGS) AND LABORATORY TESTING PROCEDURES

The following paragraphs describe the field and laboratory procedures used for this investigation for the undisturbed soil borings. Completed soil boring logs are included with this appendix. The boring logs provide the field and laboratory data collected.

A.1 FIELD EXPLORATION

Nineteen (19) undisturbed soil borings were made for this project to investigate subsurface conditions. Fifteen (15) borings were completed at the 66 foot depth and four (4) borings were completed at the 100 foot depth below ground surface. The borings were drilled on 17 August through 22 September 2004. The approximate locations of the borings are shown on the Boring Plan, Figure 1.

The locations were established by a geotechnical engineer and follow LA DEQ requirements for borehole spacing and depth. The borings were staked in field by the surveyors for the project, C. Mistric Surveyors.

A.1.1 Drilling Methods

The borings were drilled with ATV-mounted, rotary-type drilling equipment. A bulldozer was utilized to clear pathways and access for the equipment to the boring locations. The soil borings were advanced using a nominal four-inch diameter short flight auger. This technique allowed the proper borehole advancement to secure the appropriate samples (see "Sampling Procedures") and allowed the observation of the presence of free water in the boreholes. Upon completion of the borings, the boreholes were grouted full depth in accordance with Louisiana regulations.

A.1.2 Sampling Procedures

Soil samples were obtained continuously within the upper 66 feet of the ground surface. Continuous sampling was performed to provide detailed information and in order to satisfy LA DEQ regulations. Below the 66 foot depth, the samples were obtained at three to five feet on center.

In these cohesive and semi-cohesive soils, relatively undisturbed samples were secured using a three-inch diameter, thin-wall steel tube sampler. In this sampling procedure, the borehole is advanced to the desired level, and the tube is lowered to the bottom of the boring. It is then pushed about two feet into the undisturbed soil in one continuous stroke. The sample and tube are retrieved from the borehole and detached from the drill string.

The sample is extruded by a hydraulic piston onto a rigid sample catcher to minimize disturbance. The sample is then visually classified. The classification includes description of soil color, strength estimates, identification of structural conditions (layering, seams, etc.) and variations (organics, oxide inclusions, etc.). A pocket penetrometer strength test is performed. Any disturbed portions are discarded, and the sample is sealed to minimize disturbance and moisture loss during transportation to STE's LA DEQ approved soils laboratory.

In the less cohesive materials, standard penetration tests were performed. These tests provide a measure of the in situ characteristics of the soil and secure a disturbed sample. In this test, a 2 inch OD, 1.37 ID, heavy-walled "split spoon" sampler is driven into the undisturbed soil at the bottom of the borehole with a drop hammer weighing 140 pounds and having a stroke of 30 inches. It is first seated 6 inches, then driven an additional two, six-inch increments. The "Penetration Resistance" is the number of such blows required to drive the spoon the last 12 inches. It is recorded on the boring log in the following manner:

24 b/f
(7-9-15)

where the figures in parenthesis indicate the number of blows required for each 6 inch increment.

A.2 LABORATORY PROCEDURES

Certain samples from the various strata were tested in the laboratory to determine their pertinent physical characteristics. The samples and types of tests performed were selected by a geotechnical engineer to develop information necessary for appropriate analyses. The testing program was conducted in general accordance with ASTM and LA DEQ methods and is described below.

A.2.1 Strength Tests

The strength characteristics of the various soil strata are important for geotechnical engineering analyses. One hundred and forty-three (143) unconfined compression (UCT) tests (ASTM D 2166) and nine (9) unconsolidated, undrained, triaxial compression (UU) tests (ASTM D 2850) were performed to develop this data. The testing procedures also include determination of the moisture content and wet and dry density of the sample.

The results of the UCT and UU compression tests are tabulated in the laboratory data portion of the soil boring logs under the column heading "Compressive Strength". The moisture content and dry density data are tabulated in the subsequent two columns within the laboratory data portion of the logs.

STE
Soil Testing Engineers, Inc.

A.2.2 Classification Tests

In order to classify the soils more definitely than can be done by field methods, seventy-eight (78) Atterberg Limit determinations (ASTM D 4318), eight (8) separate moisture content determinations, and eight (8) grain size sieve analyses were made.

The Atterberg Limits data consist of Liquid Limit (LL), Plastic Limit (PL), and Plasticity Index (PI). The relationship among these variables is as follows:

$$PI = LL - PL$$

The Atterberg Limits data is provided within the laboratory portion of the logs under the headings "Liquid Limit" and "Plasticity Index". The results of the moisture content determinations are provided on the soil boring logs. The grain size sieve results are provided on individual plots following the boring logs.

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-1

STE
Soil Testing Engineers, Inc.
Sheet 1 of 3

File: 04-3010
Date: 08/17/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 32.6"
Longitude 90° 51' 53.5"
Surface Elevation: 2.8 (ft., NGVD)

Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.0 (P)									Medium stiff gray CLAY (CH) w/organic matter and silt seams
			1.0 (P)	-0.71	42	73	87	25	62			
	5		1.0 (P)									
▽			0.25 (P)	0.12t1	51	66						Very soft light gray and gray CLAY (CH) w/silt pockets and organic matter
			0.75 (P)									
	10		1.75 (P)	1.74	23	101	46	18	28			Stiff tan and light gray SILTY CLAY (CL) w/organic matter
			2.0 (P)									
	15		2.0 (P)	1.51	29	93						
			2.0 (P)									
			2.75 (P)	1.17s 2.73r	37	82 84	88	28	60			Very stiff light gray and tan CLAY (CH)
	20		2.5 (P)									
			3.5 (P)									
	25		3.5 (P)	0.84s 2.49r	31	92 92						
			3.25 (P)									
			3.5 (P)									
	30		3.0 (P)	1.04s 1.94r	45	75 77	111	38	73			
			3.0 (P)									
	35		2.75 (P)									
			2.5 (P)									
			1.75 (P)	1.02	29	92						Stiff gray CLAY (CH) w/sand pockets
	40											

Continued Next Page

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger: 0 to 12 ft.
4" Dia. Rotary Wash: 12 to 100 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

t: Unconsolidated, Undrained Triaxial Compression Test
t1: Lateral Pressure = 4.4 psi
s: Slickensided Failure
r: Remolded Strength

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-1

STE
Soil Testing Engineers, Inc.
Sheet 2 of 3

File: 04-3010
Date: 08/17/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 32.8"
Longitude 90° 51' 53.5"
Surface Elevation: 2.8 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Sampler	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.75 (P)									Stiff gray CLAY (CH) w/sand pockets
			3.5 (P)									Very stiff tan and light gray CLAY (CH) w/organics and sand seams
	45		2.5 (P)	2.45	35	86	73	26	47			
			2.75 (P)									
			2.5 (P)									Stiff gray SANDY CLAY (CL) w/sand seams
	50		2.75 (P)									
			3.0 (P)	1.00	27	93						
	55		3.5 (P)									
			2.5 (P)									
			2.0 (P)									
	60		2.0 (P)	1.31t2	28	92	37	21	16			
			7 b/f 2-3-4									
	65		10 b/f 3-4-6		36							
			14 b/f 2-5-9									
	70											
			1.75 (P)	1.51t3	28	93	34	20	14			
	75											
			1.5 (P)									
	80											

Continued Next Page

Ground Water Level Data

Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger: 0 to 12 ft.
4" Dia. Rotary Wash: 12 to 100 ft.

Boring Abandonment Method

Borehole grouted with cement/bentonite upon completion

Notes

t: Unconsolidated, Undrained Triaxial Compression Test
t2: Lateral Pressure = 26.2 psi
t3: Lateral Pressure = 31.2 psi

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-1

STE
Soil Testing Engineers, Inc.
Sheet 3 of 3

File: 04-3010
Date: 08/17/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 32.8"
Longitude 90° 51' 53.5"

Surface Elevation: 2.8 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
												Stiff gray SANDY CLAY (CL) w/sand seams
	85		1.5 (P)	0.96t4	27	94						
												Medium dense gray CLAYEY SAND (SC) w/clay layers
	90		27 b/f 10-10-17									
	95		20 b/f 6-8-12							GS		
	100		22 b/f 17-10-12									Boring completed at 100 ft.
	105											
	110											
	115											
	120											

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger: 0 to 12 ft.
4" Dia. Rotary Wash: 12 to 100 ft.

Boring Abandonment Method

Borehole grouted with cement/bentonite upon completion

Notes

t: Unconsolidated, Undrained Triaxial Compression Test
t4: Lateral Pressure = 35.3 psi
GS: Particle Size Analysis
Sand Content = 43%

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-3

STE
Soil Testing Engineers, Inc.

Sheet 1 of 2

LELAP Certificate No. 02052

File: 04-3010
Date: 08/21/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 32.9"
Longitude 90° 51' 43.0"
Surface Elevation: 1.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Sampled	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.0 (P)									Soft gray CLAY (CH) w/organic matter and silt layers
			0.5 (P)	0.41	54	67	93	27	66			
	5		1.0 (P)									
▽			1.5 (P)	1.19	26	99						Stiff tan and gray CLAY (CH) w/organic matter and silt seams
			1.5 (P)									
	10		2.25 (P)									Very stiff light gray and tan CLAY (CH) w/organic matter and silt seams
			3.5 (P)	2.18	20	106	54	17	37			
	15		2.5 (P)									
			3.0 (P)									
			3.5 (P)	3.44	21	105						
	20		3.5 (P)									
			3.0 (P)	2.90	22	104	56	19	37			
	25		3.75 (P)									
			3.5 (P)									
			2.5 (P)									
	30		3.5 (P)	2.81	33	90						
			2.5 (P)									
	35		2.75 (P)									
			3.0 (P)									
			2.75 (P)	1.64	35	89	57	21	36			Stiff light gray and tan CLAY (CH) w/organic matter
	40											

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Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

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BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-3

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 08/21/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 32.9"
Longitude 90° 51' 43.0"
Surface Elevation: 1.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
			2.5 (P)									Stiff light gray and tan CLAY (CH) w/organic matter
			2.0 (P)									
	45		3.0 (P)	2.12	29	99						Very stiff light gray and gray CLAY (CH) w/silt seams and pockets, and organic matter
			2.75 (P)									
			2.5 (P)									
	50		3.5 (P)	2.90	26	97	57	19	38			
			3.75 (P)									
	55		2.0 (P)									Stiff light gray and tan CLAY (CH) w/silt traces
			3.0 (P)	1.51	30	90						
			3.5 (P)									
	60		3.0 (P)									
			3.0 (P)									
	65		4.0 (P)	1.94	26	95	56	22	34			
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

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BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-5

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2
LELAP Certificate No. 02052

File: 04-3010
Date: 09/14/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 32.8"
Longitude 90° 51' 32.8"
Surface Elevation: 2.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.5 (P)									Medium stiff gray CLAY (CH) w/organic matter
			1.0 (P)									
	5		1.0 (P)	0.55	45	73	83	30	53			
▽			1.0 (P)									
			1.0 (P)									Medium stiff light gray and tan CLAY (CH) w/silt seams
	10		1.0 (P)									
			2.5 (P)									
	15		1.5 (P)	0.58	32	90						
			1.5 (P)									Stiff greenish-gray and tan CLAY (CH)
			2.75 (P)									
	20		2.5 (P)									
			2.5 (P)									
	25		2.5 (P)	1.88	24	99	59	20	39			
			2.5 (P)									
			2.5 (P)									
	30		3.0 (P)									
			2.0 (P)									
	35		3.5 (P)	1.01s 1.64r	34	86 86						
			3.25 (P)									
			2.75 (P)									
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	s: Slickensided Failure r: Remolded Strength
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-5

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2
LELAP Certificate No. 02052

File: 04-3010
Date: 09/14/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 32.8"
Longitude 90° 51' 32.8"
Surface Elevation: 2.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.0 (P)									Stiff greenish-gray and tan CLAY (CH)
			1.25 (P)									
	45		3.0 (P)	1.67	31	88	66	25	41			
			3.0 (P)									
			2.25 (P)									
	50		2.5 (P)									
			2.25 (P)									
	55		2.0 (P)	1.70	36	82						
			1.75 (P)									Stiff greenish-gray and tan SILTY CLAY (CL) w/sand layers
			2.0 (P)									
	60		1.5 (P)									
			1.5 (P)									
	65		1.5 (P)		26	93	24	24	0			
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-9

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2
LELAP Certificate No. 02052

File: 04-3010
Date: 08/25/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.5"
Longitude 90° 51' 48.2"
Surface Elevation: 2.4 (ft., NGVD)

Ground Water Level	Depth (feet)	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Boil Type	Description
		1.5 (P)									Medium stiff gray and brown CLAY (CH) w/organic matter and wood
		1.75 (P)									
	5	1.5 (P)	0.53	50	68	113	35	78			
		1.75 (P)									
▽		2.0 (P)	0.80	27	93						
	10	2.75 (P)									Very stiff tan and light gray CLAY (CH) w/silt seams
		3.5 (P)									
	15	3.75 (P)									
		3.5 (P)									
		3.5 (P)	2.76	21	104	48	14	34			
	20	3.25 (P)									Stiff light gray and tan CLAY (CH) w/silt seams and organic matter
		4.25 (P)									
	25	4.0 (P)									
		3.0 (P)									
		4.25 (P)	1.75	29	94						
	30	2.25 (P)									
		2.5 (P)									
	35	3.5 (P)									
		2.5 (P)									
		3.5 (P)	1.25s 1.80r	38	81 82	99	28	71			
	40										

Continued Next Page

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger:
0 to 10 ft.
4" Dia. Rotary Wash:
10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

s: Slickensided Failure
r: Remolded Strength

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-9

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2
LELAP Certificate No. 02052

File: 04-3010
Date: 08/25/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.5"
Longitude 90° 51' 48.2"
Surface Elevation: 2.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.25 (P)									Stiff light gray and tan CLAY (CH) w/silt seams and organic matter
			3.0 (P)									
	45		3.25 (P)									
			3.5 (P)									Very stiff light gray and tan CLAY (CH) w/organic matter and silt pockets
			3.75 (P)	2.84	34	88						
	50		4.0 (P)									
			3.5 (P)									
	55		3.5 (P)									
			2.5 (P)									Stiff tan and light gray SILTY CLAY (CL) w/organic matter and sand seams
			3.0 (P)	1.55	28	95	44	20	24			
	60		3.5 (P)									
			3.5 (P)									
	65		4.0 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-11

STE
Soil Testing Engineers, Inc.
Sheet 1 of 3
LELAP Certificate No. 02052

File: 04-3010
Date: 09/20/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.5"
Longitude 90° 51' 37.9"
Surface Elevation: 2.3 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.0 (P)									Medium stiff gray and tan CLAY (CH) w/organic matter
			1.0 (P)	0.62	49	65						
	5		1.0 (P)									
			1.0 (P)									
▽			1.0 (P)									
	10		2.0 (P)	1.28	26	94	58	16	42			Stiff tan and gray CLAY (CH) w/silt seams
			2.25 (P)									
	15		2.25 (P)									
			2.5 (P)									
			2.75 (P)									Very stiff gray and tan CLAY (CH) w/organic matter and silt seams
	20		2.75 (P)	2.94	24	98						
			3.0 (P)									
	25		2.75 (P)									
			2.75 (P)									
			2.0 (P)									
	30		4.0 (P)	3.15	25	104	62	17	45			
			3.0 (P)									
	35		2.5 (P)									
			2.5 (P)									Stiff light gray and tan CLAY (CH) w/organic matter
			3.0 (P)									
	40											

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Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 100 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

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BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-11

STE
Soil Testing Engineers, Inc.
Sheet 2 of 3

File: 04-3010
Date: 09/20/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 05' 28.5"
Longitude 90° 51' 37.9"
Surface Elevation: 2.3 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.0 (P)	1.22	42	79						Stiff light gray and tan CLAY (CH) w/organic matter
			2.0 (P)									
	45		2.25 (P)									
			3.0 (P)									Very stiff tan and light gray CLAY (CH) w/silt seams
			3.0 (P)									
	50		3.5 (P)	3.39	24	100	47	18	29			
			2.5 (P)									
	55		2.5 (P)									
			1.0 (P)									Stiff light gray CLAY (CH) w/silt lenses
			1.0 (P)									
	60		1.75 (P)	1.65	24	100						
			2.0 (P)									
	65		2.0 (P)									
			1.0 (P)									
	70											
			1.25 (P)	1.50	49	73						Stiff gray CLAY (CH) w/organic matter and silt lenses
	75											
			1.25 (P)									
	80											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 100 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-11

STE
Soil Testing Engineers, Inc.
Sheet 3 of 3
LELAP Certificate No. 02052

File: 04-3010
Date: 09/20/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.5"
Longitude 90° 51' 37.9"
Surface Elevation: 2.3 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.0 (P)	1.41	49	72	92	28	64			Stiff gray CLAY (CH) w/organic matter and silt lenses
	85											
	90		24 b/f 8-10-14		18					GS1		Medium dense gray CLAYEY SAND (SC) w/clay layers
	95		14 b/f 6-7-7									
	100		11 b/f 7-4-7		21					GS2		Boring completed at 100 ft.
	105											
	110											
	115											
	120											

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 100 ft.	GS: Particle Size Analysis GS1: Sand Content = 88% GS2: Sand Content = 74%
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/2/04

BR Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-13

STE
Soil Testing Engineers, Inc.

Sheet 1 of 2

File: 04-3010
Date: 09/22/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 28.4"
Longitude 90° 51' 27.6"

Surface Elevation: 2.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			0.5 (P)									Medium stiff light gray and brown CLAY (CH) w/organic matter
			0.5 (P)									
	5		0.75 (P)	0.84	43	75	104	25	79			
▽			0.5 (P)									
			0.75 (P)									Very stiff light gray and tan CLAY (CH) w/organic matter
	10		1.0 (P)									
			2.0 (P)									
	15		2.5 (P)	2.07	23	101						
			1.5 (P)									
			2.0 (P)									
	20		2.5 (P)									
			2.5 (P)									
	25		3.0 (P)	2.29	27	94	66	20	46			
			2.5 (P)									
			3.0 (P)									
	30		2.5 (P)									
			2.5 (P)									
	35		3.0 (P)	3.26	23	103						
			2.75 (P)									
			3.0 (P)									
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01_043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-13

STE
Soil Testing Engineers, Inc.

Sheet 2 of 2

File: 04-3010
Date: 09/22/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 28.4"
Longitude 90° 51' 27.6"

Surface Elevation: 2.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.75 (P)									Very stiff light gray and tan CLAY (CH) w/organic matter
			3.25 (P)									Stiff light gray CLAY (CH) w/organic matter
	45		3.0 (P)	1.69	33	86	82	23	59			
			2.75 (P)									
			3.0 (P)									
	50		4.25 (P)									
			3.5 (P)									Very stiff light gray and tan CLAY (CH)
	55		4.25 (P)	3.30	22	99						
			2.0 (P)									Stiff gray CLAY (CH)
			4.0 (P)									
	60		3.75 (P)									
			2.5 (P)									
	65		2.5 (P)	1.40	46	74	88	26	62			
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-15

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2
LELAP Certificate No. 02052

File: 04-3010
Date: 09/07/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 24.1"
Longitude 90° 51' 53.3"
Surface Elevation: 2.4 (ft., NGVD)

Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.0 (P)									Medium stiff gray and tan SILTY CLAY (CL) w/organic matter
			0.5 (P)									
	5		1.0 (P)	0.90	26	93	41	18	23			
			1.5 (P)									
∇			2.0 (P)									
	10		2.5 (P)	1.93	24	98						Stiff tan and light gray CLAY (CH) w/organic matter and silt seams
			2.75 (P)									
	15		2.0 (P)									
			2.0 (P)									
			2.5 (P)									
	20		2.5 (P)									
			2.25 (P)	1.94	27	94	70	19	51			
	25		2.25 (P)									
			3.25 (P)									
			3.5 (P)									
	30		1.25 (P)	1.03	28	92						
			2.5 (P)									
	35		2.0 (P)									
			2.5 (P)									Very stiff tan and light gray CLAY (CH)
			1.5 (P)	2.74	39	81	68	27	61			
	40											

Continued Next Page

Ground Water Level Data

∇ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger: 0 to 10 ft.
4" Dia. Rotary Wash: 10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

Strata Boundaries May Not Be Exact

LOG01 04-3010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-15

STE
Soil Testing Engineers, Inc.

Sheet 2 of 2

LELAP Certificate No. 02052

File: 04-3010
Date: 09/07/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 24.1"
Longitude 90° 51' 53.3"
Surface Elevation: 2.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Sample Number	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.25 (P)									Very stiff tan and light gray CLAY (CH)
			1.25 (P)									
	45		1.5 (P)									
			2.0 (P)									
			2.5 (P)									
	50		2.25 (P)	1.06	35	84						Stiff greenish-gray and tan CLAY (CH)
			2.5 (P)									
	55		2.5 (P)									
			1.25 (P)	1.82	24	98	41	17	24			Stiff greenish-gray and tan SILTY CLAY (CL) w/sand seams
			1.0 (P)									
	60		1.0 (P)									
			1.0 (P)									
	65		1.25 (P)	4.53	30	91						Hard greenish-gray CLAY (CH)
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-17

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/09/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 24.0"
Longitude 90° 51' 43.0"
Surface Elevation: 2.2 .(ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Sample	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.25 (P)									Medium stiff brown and dark gray CLAY (CH) w/organic matter and roots
			1.25 (P)									
	5		1.0 (P)	0.84	43	75	104	25	79			
▽			1.0 (P)									
			1.0 (P)									
	10		1.25 (P)									Medium stiff tan and light gray CLAY (CH) w/silt seams and organic matter
			1.25 (P)									
	15		1.0 (P)	2.07	23	101						Very stiff light gray and tan CLAY (CH) w/organics
			1.5 (P)									
			2.0 (P)									
	20		2.0 (P)									
			3.5 (P)									
	25		2.75 (P)	2.29	27	94	66	20	46			
			3.0 (P)									
			3.0 (P)									Very stiff light gray CLAY (CH)
	30		2.5 (P)									
			3.25 (P)									
	35		4.5 (P)	3.26	23	103						
			3.5 (P)									
			3.0 (P)									
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-17

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2
LELAP Certificate No. 02052

File: 04-3010
Date: 09/09/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 05' 24.0"
Longitude 90° 51' 43.0"
Surface Elevation: 2.2 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Sample	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.0 (P)									Stiff tan and light gray CLAY (CH) w/silt seams and organic matter
			4.5 (P)									
	45		2.5 (P)	1.69	33	86	82	23	59			
			2.5 (P)									
			3.0 (P)									
	50		3.5 (P)									Very stiff tan and light gray CLAY (CH) w/silt seams
			3.5 (P)									
	55		3.25 (P)	3.30	22	99						
			3.0 (P)									
			3.0 (P)									Stiff bluish-gray CLAY (CH) w/organics
	60		4.0 (P)									
			3.5 (P)									
	65		2.5 (P)	1.40	46	74	88	26	62			
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-19

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2
LELAP Certificate No. 02052

File: 04-3010
Date: 09/14/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 24.0"
Longitude 90° 51' 32.8"
Surface Elevation: 2.6 (ft., NGVD)

Ground Water Level	Depth (feet)	Sampler	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			0.5 (P)									Medium stiff gray and brown CLAY (CH) w/organic matter
			1.0 (P)									
	5		1.0 (P)	0.62	49	71	111	28	83			
▽			0.75 (P)									
			1.0 (P)									
	10		1.0 (P)	0.68	30	87						
			2.0 (P)									Stiff tan CLAY (CH) w/silt seams and lenses
	15		1.5 (P)									
			1.25 (P)									
			2.0 (P)									
	20		1.75 (P)	1.44	25	96	49	18	31			
			2.25 (P)									
	25		2.0 (P)									Medium stiff tan and light gray CLAY (CH) w/sand seams
			1.75 (P)									
			2.0 (P)									
	30		2.25 (P)	0.65	31	88						
			3.25 (P)									
	35		3.0 (P)									
			3.25 (P)									
			3.25 (P)									Very stiff gray and tan CLAY (CH) w/organics
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-19

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2
LELAP Certificate No. 02052

File: 04-3010
Date: 09/14/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 24.0"
Longitude 90° 51' 32.6"
Surface Elevation: 2.6 (ft., NGVD)

Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.0 (P)	3.26	32	88	82	28	54			Very stiff gray and tan CLAY (CH) w/organics
			3.0 (P)									
	45		2.75 (P)									
			3.0 (P)									
			2.5 (P)									Stiff gray and tan CLAY (CH) w/silt seams
	50		2.0 (P)	1.71	30	87						
			3.5 (P)									
	55		3.5 (P)									
			3.0 (P)									
			2.75 (P)									
	60		2.5 (P)	3.06	26	96	54	20	34			Very stiff greenish-gray and tan CLAY (CH) w/silt seams
			4.0 (P)									
	65		2.0 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG 04-3010 PJ 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-21

STE
Soil Testing Engineers, Inc.
Sheet 1 of 3

File: 04-3010
Date: 09/21/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 24.0"
Longitude 90° 51' 22.5"
Surface Elevation: 1.6 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.5 (P)									Medium stiff gray CLAY (CH) w/organic matter
			0.75 (P)									
	5		0.75 (P)	0.65	45	75						
▽			1.5 (P)									
			1.5 (P)									
	10		1.75 (P)									Stiff tan and light gray SILTY CLAY (CL)
			1.5 (P)									
	15		2.0 (P)									
			2.25 (P)	1.75	24	100	47	16	31			
			2.0 (P)									
	20		2.5 (P)									
			2.75 (P)									Stiff brown and gray CLAY (CH) w/silt pockets
	25		4.0 (P)									
			3.0 (P)	1.22	36	84						
			3.0 (P)									
	30		3.0 (P)									
			2.75 (P)									
	35		3.0 (P)									Very stiff tan and light gray CLAY (CH) w/silt seams
			2.75 (P)	2.26	31	91	77	23	54			
			2.75 (P)									
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 100 ft.	
	Boring Abandonment Method: Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-21

STE
Soil Testing Engineers, Inc.
Sheet 2 of 3
LELAP Certificate No. 02052

File: 04-3010
Date: 09/21/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 24.0"
Longitude 90° 51' 22.5"
Surface Elevation: 1.6 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.5 (P)									Very stiff tan and light gray CLAY (CH) w/silt seams
			2.5 (P)									
	45		2.0 (P)									
			2.0 (P)	2.43	30	91						
			2.5 (P)									
	50		2.25 (P)									Stiff tan and light gray CLAY (CH) w/silt pockets and sand seams
			3.0 (P)									
	55		2.75 (P)									
			3.0 (P)	1.43	30	89	51	20	31			
			3.0 (P)									
	60		2.75 (P)									
			2.0 (P)									
	65		2.0 (P)									Very stiff gray CLAY (CH) w/silt seams
			1.5 (P)	3.06	30	87	60	21	39			
	70											
			2.0 (P)									
	75											
			2.5 (P)	1.81	31	89						Stiff gray CLAY (CH) w/silt seams
	80											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 100 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-21

STE
Soil Testing Engineers, Inc.
Sheet 3 of 3

File: 04-3010
Date: 09/21/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 24.0"
Longitude 90° 51' 22.5"
Surface Elevation: 1.6 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
	85		1.5 (P)									Stiff gray CLAY (CH) w/silt seams
	90		23 b/f 9-11-12		22					GS1		Medium dense gray CLAYEY SAND (SC)
	95		24 b/f 10-12-12									
	100		19 b/f 9-9-10		27					GS2		
												Boring completed at 100 ft.
	105											
	110											
	115											
	120											

Ground Water Level Data

Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger: 0 to 10 ft.
4" Dia. Rotary Wash: 10 to 100 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

GS: Particle Size Analysis
GS1: Sand Content = 54%
GS2: Sand Content = 53%

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-22

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 08/23/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 06' 22.6"
Longitude 90° 51' 53.3"
Surface Elevation: 1.9 (ft., NGVD)

Ground Water Level	Depth (feet)	Sample	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.0 (P)									Soft gray and tan CLAY (CH) w/organic matter
			1.25 (P)									
	5		0.75 (P)	0.37	58	62	105	31	74			
▽			1.5 (P)									Medium stiff tan and gray CLAY (CH) w/organic matter and silt layers
			1.5 (P)	0.62	29	91						
	10		1.5 (P)									
			2.5 (P)									
	15		2.5 (P)									Stiff gray and tan CLAY (CH)
			2.75 (P)	1.70	26	97	62	18	44			
			3.25 (P)									
	20		3.5 (P)									
			4.0 (P)									Stiff tan and brown CLAY (CH) w/sand seams
	25		4.0 (P)	1.00	28	95						
			3.25 (P)									
			2.75 (P)									
	30		3.5 (P)									Stiff tan and light gray CLAY (CH) w/silt seams
			3.5 (P)									
	35		3.0 (P)	1.76	38	81	94	31	63			
			2.5 (P)									Medium stiff tan and brown CLAY (CH) w/silt lenses
			2.5 (P)									
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-22

STE
Soil Testing Engineers, Inc.

Sheet 2 of 2

LELAP Certificate No. 02052

File: 04-3010
Date: 08/23/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 22.6"
Longitude 90° 51' 53.3"
Surface Elevation: 1.9 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
			2.5 (P)									Medium stiff tan and brown CLAY (CH) w/silt lenses
			3.0 (P)	0.90	32	91						
	45		3.0 (P)									Very stiff tan and brown CLAY (CH) w/organic matter
			2.75 (P)									
			3.0 (P)									
	50		3.25 (P)									
			3.5 (P)	3.56	31	91	67	23	44			
	55		2.0 (P)									Stiff gray and light gray CLAY (CH) w/sand seams
			2.25 (P)									
			3.0 (P)	1.67	30	90						
	60		3.0 (P)									
			2.0 (P)									
	65		4.0 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-23

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/22/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 20.0"
Longitude 90° 51' 32.8"
Surface Elevation: 2.5 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Symbols	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			0.5 (P)									Medium stiff gray and tan CLAY (CH) w/organic matter
			0.5 (P)									
	5		1.0 (P)									
▽			1.5 (P)	0.86	30	90	64	19	45			
			0.25 (P)									
	10		0.25 (P)									
			0.5 (P)									Stiff tan and light gray CLAY (CH) w/silt seams
	15		0.5 (P)									
			2.0 (P)	1.19	24	98						
			2.5 (P)									
	20		2.5 (P)									
			2.5 (P)									
	25		2.0 (P)									
			2.5 (P)	2.07	28	95	71	21	50			
			3.0 (P)									
	30		2.5 (P)									
			2.5 (P)									
	35		3.0 (P)									
			2.5 (P)	1.14	26	95						
			2.0 (P)									
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/2/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-23

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/22/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 20.0"
Longitude 90° 51' 32.8"
Surface Elevation: 2.5 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Lithology	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.5 (P)									Stiff tan and light gray CLAY (CH) w/silt seams
			3.0 (P)									Very stiff gray CLAY (CH) w/organics
	45		4.0 (P)									
			4.0 (P)	3.44	33	90	63	22	41			
			4.0 (P)									
	50		3.0 (P)									
			2.5 (P)									Stiff gray CLAY (CH)
	55		2.5 (P)									
			2.5 (P)	1.59	38	82						
			3.0 (P)									
	60		2.5 (P)									
			3.0 (P)									
	65		3.5 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-24

STE
Soil Testing Engineers, Inc.

Sheet 1 of 2

File: 04-3010
Date: 09/10/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 20.1"
Longitude 90° 51' 20.9"

Surface Elevation: 1.9 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.25 (P)									Stiff gray and tan CLAY (CH) w/organic matter
			1.0 (P)									
	5		1.0 (P)	1.03	40	81						
▽			1.0 (P)									
			1.25 (P)									
	10		1.5 (P)									Stiff tan and gray CLAY (CH) w/silt seams
			1.25 (P)									
	15		2.5 (P)	1.50	24	99	55	13	42			
			2.0 (P)									
			2.25 (P)									
	20		1.75 (P)									
			1.75 (P)									
	25		3.5 (P)	1.07	38	80						
			3.0 (P)									
			2.5 (P)									
	30		2.75 (P)									
			2.5 (P)									Medium stiff tan and light gray SILTY CLAY (CL)
	35		3.25 (P)	0.91	27	93	35	17	18			
			3.0 (P)									
			2.5 (P)									
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 50 ft.	
	Boring Abandonment Method	
	Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-24

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/10/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 20.1"
Longitude 90° 51' 20.9"
Surface Elevation: 1.9 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			4.0 (P)									Very stiff gray CLAY (CH)
			3.5 (P)									
	45		3.75 (P)	3.56	28	93						
			2.5 (P)									
			1.25 (P)									
	50											Boring completed at 50 ft.
	55											
	60											
	65											
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 50 ft.	
	Boring Abandonment Method Boreholes grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

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BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-25

STE
Soil Testing Engineers, Inc.

Sheet 1 of 2

LELAP Certificate No. 02052

File: 04-3010
Date: 09/10/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 05' 20.1"
Longitude 90° 51' 37.1"
Surface Elevation: 2.8 (ft., NGVD)

Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.0 (P)									Medium stiff gray CLAY (CH) w/organic matter
			1.0 (P)	0.60	37	82	74	17	57			
	5		1.5 (P)									
▽			2.0 (P)									
			2.75 (P)									
	10		3.0 (P)									
			2.5 (P)	2.17	24	100						Very stiff tan and light gray CLAY (CH) w/organics
	15		2.0 (P)									
			2.25 (P)									
			2.5 (P)									
	20		3.0 (P)									Stiff light gray and tan CLAY (CH) w/silt seams
			3.75 (P)	1.80	29	94	80	16	64			
	25		3.0 (P)									
			4.5 (P)									
			2.5 (P)									
	30		2.5 (P)									
			3.0 (P)	1.58	25	97						
	35		3.0 (P)									
			3.0 (OP)									
			3.5 (P)									
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 50 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LC001 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-25

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/10/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 20.1"
Longitude 90° 51' 37.1"
Surface Elevation: 2.8 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.75 (P)									Stiff light gray and tan CLAY (CH) w/silt seams
			3.0 (P)	1.40	35	83	68	22	46			
	45		3.0 (P)									
			3.0 (P)									Very stiff light gray CLAY (CH)
			3.0 (P)	3.23	25	95						
	50											Boring completed at 50 ft.
	55											
	60											
	65											
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 50 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

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BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-26

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/22/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 20.0"
Longitude 90° 51' 27.7"

Surface Elevation: 2.6 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
▽			3.0 (P)	1.26	35	68	107	31	76			Stiff brown and gray CLAY (CH) w/organic matter
			0.5 (P)									
	5		0.5 (P)									
			0.5 (P)									
			1.0 (P)	1.09	27	95						
	10		1.5 (P)									
			2.0 (P)									
	15		3.0 (P)									Stiff tan CLAY (CH)
			2.0 (P)									
			2.5 (P)	1.23	34	84	88	25	63			
	20		2.5 (P)									
			3.0 (P)									
	25		3.5 (P)									
			4.0 (P)									Hard tan and light gray CLAY (CH)
			4.5 (P)	4.41	21	103						
	30		4.5 (P)									
			4.5 (P)									
	35		3.0 (P)									Stiff tan and light gray CLAY (CH) w/silt seams and lenses
			2.5 (P)									
			3.5 (P)	1.06	28	92	71	19	52			
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/2/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-26

STE
Soil Testing Engineers, Inc.

Sheet 2 of 2

CDM
New Orleans, LA

LELAP Certificate No. 02052

File: 04-3010
Date: 09/22/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

Location: Latitude 30° 08' 20.0"
Longitude 90° 51' 27.7"
Surface Elevation: 2.6 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.0 (P)									Stiff tan and light gray CLAY (CH) w/silt seams and lenses
			3.5 (P)									
	45		3.5 (P)									
			3.0 (P)									
			2.5 (P)	1.67	30	92						
	50		3.0 (P)									
			2.5 (P)									Stiff light gray and tan SILTY CLAY (CL)
	55		3.0 (P)									
			4.0 (P)									
			2.5 (P)	1.61	29	91	41	21	20			
	60		3.0 (P)									
			3.0 (P)									
	65		1.5 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

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BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-28

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/03/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 06' 32.6"
Longitude 90° 52' 03.5"
Surface Elevation: 5.3 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.5 (P)									Medium stiff dark gray and tan CLAY (CH) w/organic matter and silt layers
			2.0 (P)									
	5		2.0 (P)	0.55	32	87	63	20	43			
▽			2.0 (P)									
			2.25 (P)	1.37	26	98						Stiff light gray and tan CLAY (CH) w/silt seams
	10		2.5 (P)									
			2.5 (P)									
	15		2.5 (P)									
			3.0 (P)	1.88	24	100	42	17	25			
			3.0 (P)									
	20		3.5 (P)									
			3.5 (P)									
	25		3.0 (P)									Very stiff light gray and tan CLAY (CH)
			3.25 (P)	3.04	23	101						
			3.5 (P)									
	30		3.0 (P)									
			3.5 (P)									Stiff light gray CLAY (CH)
	35		3.75 (P)									
			3.5 (P)	1.92	32	89	83	22	61			
			3.5 (P)									
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method	
	Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

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BFI Colonial Landfill
Permit Renewal
Sorrento, LA

CDM
New Orleans, LA

LOG OF SOIL BORING CDM-28

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2
LELAP Certificate No. 02052

File: 04-3010
Date: 09/03/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

Location: Latitude 30° 08' 32.8"
Longitude 90° 52' 03.5"
Surface Elevation: 5.3 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
			3.5 (P)									Stiff light gray CLAY (CH)
			3.5 (P)									
	45		3.0 (P)									Very stiff light gray CLAY (CH) w/silt seams
			3.5 (P)	2.08	36	85						
			3.5 (P)									
	50		3.5 (P)									
			3.5 (P)									
	55		3.75 (P)									Stiff gray SANDY CLAY (CL) w/silt seams
			3.0 (P)	1.29	25	97	36	18	18			
			2.5 (P)									
	60		2.75 (P)									
			2.75 (P)									
	65		3.0 (P)	1.19	33	88						
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method	
	Borehole grouted with cement/ bentonite upon completion	

Strata Boundaries May Not Be Exact

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BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-30

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/08/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 28.6"
Longitude 90° 52' 08.7"

Surface Elevation: 5.1 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			4.5 (P)									Medium stiff gray and tan CLAY (CH) w/organic matter and silt seams
			0.5 (P)	0.57	30	85						
	5		1.5 (P)									
▽			0.5 (P)	0.58t1	28	90	40	20	20			
			0.5 (P)									
	10		1.25 (P)									
			1.5 (P)									
	15		2.0 (P)									Stiff tan and light gray CLAY (CH)
			1.5 (P)	1.52	25	99						
			1.75 (P)									
	20		2.0 (P)									
			3.0 (P)									
	25		2.0 (P)									
			1.75 (P)	1.80	38	80	97	30	67			
			1.75 (P)									
	30		1.25 (P)									
			1.75 (P)									
	35		1.25 (P)									
			1.5 (P)	1.89	33	88						
			2.75 (P)									
	40											

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Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger: 0 to 10 ft.
4" Dia. Rotary Wash: 10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

t: Unconsolidated, Undrained Triaxial Compression Test
t1: Lateral Pressure = 5.6 psi

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-30

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/08/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 28.6"
Longitude 90° 52' 08.7"
Surface Elevation: 5.1 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.0 (P)									Stiff tan and light gray CLAY (CH)
			3.0 (P)									
	45		1.75 (P)									
			1.75 (P)	1.42	40	80	78	23	55			
			3.0 (P)									
	50		2.5 (P)									
			0.5 (P)									Medium stiff tan SILTY CLAY (CL) w/sand seams
	55		1.25 (P)									
			1.0 (P)	0.88t2	26	105						
			1.0 (P)									
	60		2.25 (P)									
			2.0 (P)									
	65		1.75 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	t: Unconsolidated, Undrained Triaxial Compression Test t2: Lateral Pressure = 31.4 psi
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-31

STE
Soil Testing Engineers, Inc.
Sheet 1 of 3

File: 04-3010
Date: 09/08/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 28.6"
Longitude 90° 52' 03.5"
Surface Elevation: 5.4 (ft., NGVD)

Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.0 (P)									Stiff tan and light gray CLAY (CH) w/silt seams and organic matter
			0.5 (P)									
	5		1.25 (P)									
			0.5 (P)									
▽			2.0 (P)	1.74	22	101	45	15	30			Stiff tan and light gray SILTY CLAY (CL)
	10		2.5 (P)									
			2.5 (P)									
	15		2.5 (P)									
			2.0 (P)									
			2.5 (P)	2.49	23	101						Very stiff light gray and brown CLAY (CH)
	20		2.0 (P)									
			1.5 (P)									
	25		2.5 (P)									
			1.5 (P)									
			2.5 (P)	2.92	26	98	58	16	42			
	30		2.5 (P)									
			2.0 (P)									
	35		1.75 (P)									
			2.0 (P)									Stiff tan and gray CLAY (CH) w/silt seams and lenses
			2.5 (P)									
	40											

Continued Next Page

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger: 0 to 10 ft.
4" Dia. Rotary Wash: 10 to 100 ft.

Boring Abandonment Method

Borehole grouted with cement/bentonite upon completion

Notes

t: Unconsolidated, Undrained Triaxial Compression Test
t1: Lateral Pressure = 18.6 psi
t2: Lateral Pressure = 38.5 psi

Strata Boundaries May Not Be Exact

LOG01_04301O.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-31

STE
Soil Testing Engineers, Inc.
Sheet 2 of 3

File: 04-3010
Date: 09/08/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 28.6"
Longitude 90° 52' 03.5"
Surface Elevation: 5.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.25 (P)	1.03t1	32	86						Stiff tan and gray CLAY (CH) w/silt seams and lenses
			2.0 (P)									
	45		2.0 (P)									
			2.5 (P)									
			1.75 (P)	1.40	33	86	76	25	51			
	50		2.75 (P)									
			2.25 (P)									
	55		1.5 (P)									
			2.0 (P)									Very stiff light gray CLAY (CH) w/silt seams
			2.5 (P)	3.49	23	101						
	60		2.5 (P)									
			3.5 (P)									
	65		2.5 (P)									
			2.0 (P)	5.21m	25	101	58	20	38			Hard bluish-gray CLAY (CH) w/silt pockets
	70											
			2.0 (P)									
	75											
			1.0 (P)	2.58t2	23	102						Loose to medium dense tan and gray CLAYEY SAND (SC)
	80											

Continued Next Page

Ground Water Level Data

Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger: 0 to 10 ft.
4" Dia. Rotary Wash: 10 to 100 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

m: Machine Limit

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-31

STE
Soil Testing Engineers, Inc.
Sheet 3 of 3

File: 04-3010
Date: 09/08/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 28.6"
Longitude 90° 52' 03.5"
Surface Elevation: 5.4 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
	85		2.0 (P)									Loose to medium dense tan and gray CLAYEY SAND (SC)
	90		30 b/f 11-14-16		17					GS1		Medium dense to dense gray and tan CLAYEY SAND (SC) w/silt seams
	95		24 b/f 10-12-12		25					GS2		
	100		27 b/f 9-12-15		22					GS3		Boring completed at 100 ft.
	105											
	110											
	115											
	120											

Ground Water Level Data

Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger: 0 to 10 ft.
4" Dia. Rotary Wash: 10 to 100 ft.

Boring Abandonment Method

Borehole grouted with cement/bentonite upon completion

Notes

GS: Particle Size Analysis
GS1: Sand Content = 78%
GS2: Sand Content = 65%
GS3: Sand Content = 78%

Strata Boundaries May Not Be Exact

LOGD1 043010.GPJ LOGD01.GDT 10/27/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-32

STE
Soil Testing Engineers, Inc.

Sheet 1 of 2

LELAP Certificate No. 02052

File: 04-3010
Date: 08/26/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

Location: Latitude 30° 08' 28.5"
Longitude 90° 51' 58.4"

Surface Elevation: 5.1 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.0 (P)									Medium stiff tan and gray CLAY (CH) w/silt seams and organic matter
			2.0 (P)	0.78	33	84	86	21	65			
	5		2.5 (P)									
▽			2.5 (P)	0.92t	25	98						
			2.0 (P)									
	10		2.25 (P)									
			2.5 (P)									Stiff light gray and tan CLAY (CH)
	15		2.25 (P)	1.66	23	99	61	17	44			
			3.0 (P)									
			3.5 (P)									
	20		3.5 (P)									
			3.25 (P)	2.78	24	99						Very stiff light gray and tan CLAY (CH)
	25		3.5 (P)									
			4.0 (P)									
			2.0 (P)									
	30		2.25 (P)									Stiff light gray CLAY (CH) w/organics
			2.5 (P)	1.59	27	94	53	21	32			
	35		2.75 (P)									
			1.75 (P)									
			2.5 (P)									
	40											

Continued Next Page

Ground Water Level Data

▽ Free water first encountered

Boring Advancement Method

4" Nom. Dia. Short Flight Auger: 0 to 10 ft.
4" Dia. Rotary Wash: 10 to 66 ft.

Boring Abandonment Method

Borehole grouted with cement/ bentonite upon completion

Notes

t: Unconsolidated, Undrained Triaxial Compression Test
Lateral Pressure = 6.0 psi

Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-32

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 08/26/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 28.5"
Longitude 90° 51' 58.4"
Surface Elevation: 5.1 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			2.0 (P)									Stiff light gray CLAY (CH) w/organics
			3.5 (P)	1.46	41	80						
	45		2.75 (P)									
			3.25 (P)									
			3.0 (P)									Very stiff light gray and tan CLAY (CH) w/silt and sand seams
	50		3.25 (P)									
			3.5 (P)	2.99	22	106	47	17	30			
	55		3.0 (P)									
			2.5 (P)									
			2.0 (P)									Stiff gray CLAY (CH)
	60		3.0 (P)									
			2.75 (P)	1.29	41	79						
	65		3.25 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
∇ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 04-3010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-34

STE
Soil Testing Engineers, Inc.
Sheet 1 of 2

File: 04-3010
Date: 09/07/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 24.1"
Longitude 90° 52' 03.5"

Surface Elevation: 4.8 (ft., NGVD)

FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			1.5 (P)									Medium stiff tan and gray CLAY (CH) w/organic matter and silt seams
			2.0 (P)									
	5		2.0 (P)									
▽			1.5 (P)	0.85	32	87	53	20	33			
			2.0 (P)									
	10		3.0 (P)									Stiff tan and light gray CLAY (CH) w/silt seams and organic matter
			3.5 (P)									
	15		3.0 (P)									
			2.5 (P)	1.85	24	106						
			2.5 (P)									
	20		2.5 (P)									
			3.0 (P)									
	25		3.0 (P)									
			2.5 (P)									Stiff light gray and tan CLAY (CH) w/silt seams and sand lenses
			2.75 (P)	1.44	28	92	58	18	40			
	30		3.0 (P)									
			3.5 (P)									
	35		3.0 (P)									
			2.5 (P)									
			3.25 (P)	1.29	39	82						
	40											

Continued Next Page

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method	
	Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

BFI Colonial Landfill
Permit Renewal
Sorrento, LA

LOG OF SOIL BORING CDM-34

STE
Soil Testing Engineers, Inc.
Sheet 2 of 2

File: 04-3010
Date: 09/07/04
Logged by: C. Rowbatham
Driller: Triangle Resources
Rig: Ardco K-1000

CDM
New Orleans, LA

LELAP Certificate No. 02052

Location: Latitude 30° 08' 24.1"
Longitude 90° 52' 03.5"
Surface Elevation: 4.8 (ft., NGVD)

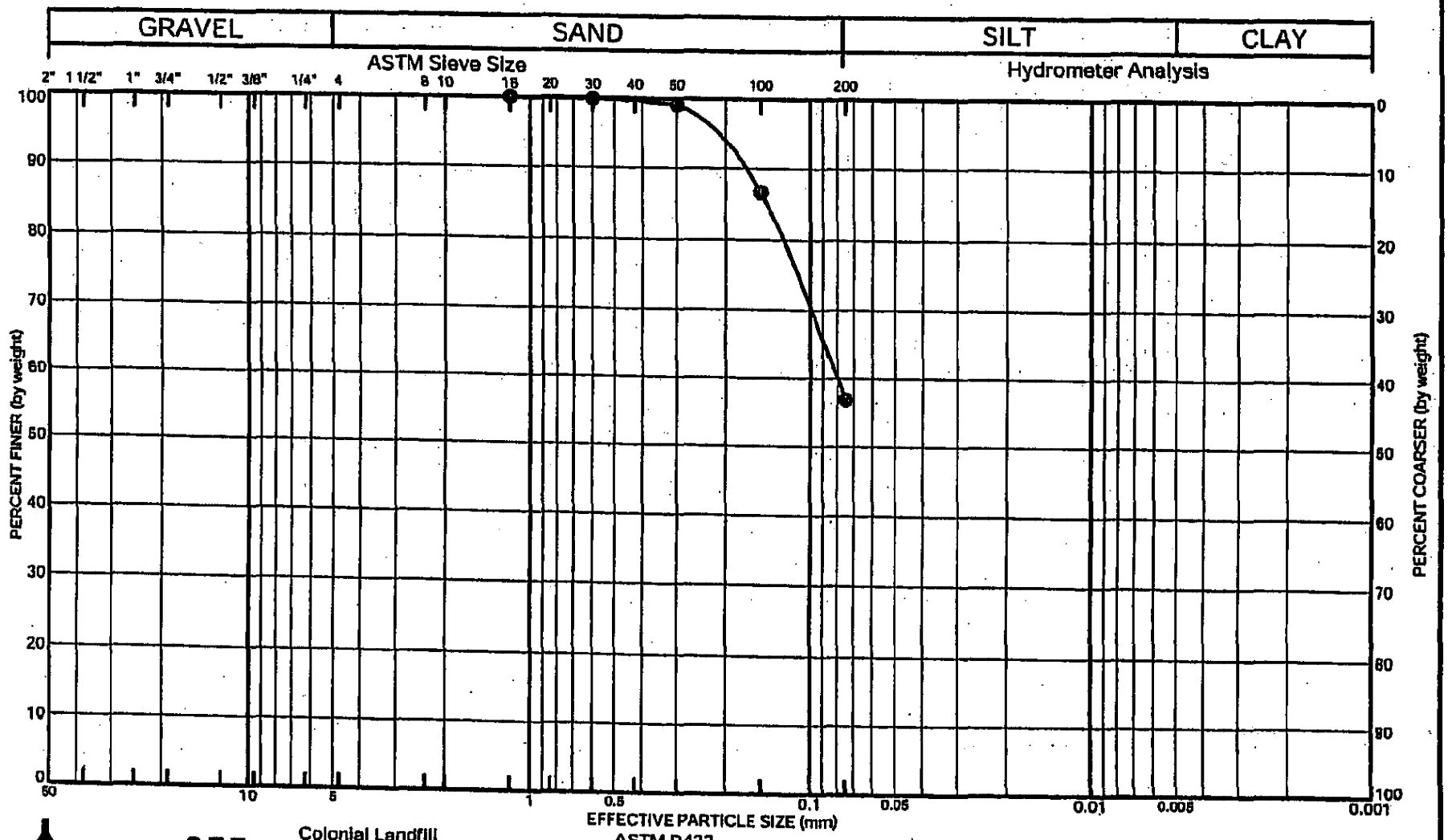
FIELD DATA				LABORATORY DATA								
Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	PL	PI	Other	Soil Type	Description
			3.5 (P)									Stiff light gray and tan CLAY (CH) w/silt seams and sand lenses
			2.25 (P)									
	45		2.5 (P)									
			3.5 (P)									
			3.5 (P)	1.63	38	82	71	23	48			
	50		3.5 (P)									
			2.25 (P)									
	55		2.5 (P)									
			3.75 (P)									Very stiff bluish-gray CLAY (CH) w/silt seams
			4.0 (P)	3.24	26	98						
	60		4.0 (P)									
			4.0 (P)									
	65		4.0 (P)									
												Boring completed at 66 ft.
	70											
	75											
	80											

Ground Water Level Data	Boring Advancement Method	Notes
▽ Free water first encountered	4" Nom. Dia. Short Flight Auger: 0 to 10 ft. 4" Dia. Rotary Wash: 10 to 66 ft.	
	Boring Abandonment Method Borehole grouted with cement/ bentonite upon completion	Strata Boundaries May Not Be Exact

LOG01 043010.GPJ LOG01.GDT 10/22/04

Boring No.	Depth (ft.)	Gravel (%)	Sand (%)
● CDM-1	93.0 - 95.0	0.0	43.2

LELAP Certificate No. 02052



STE

Colonial Landfill
Sorrento, LA

GRAIN SIZE ANALYSIS

File No.: 04-3010

SZ 04301G.GPJ GRAINSZ.GDT 03/01/04