WARZYN

PROJECT
6095300

81925 3

VOLUME 2 OF 3

WORK PLAN (PSER/TS)

H.O.D. LANDFILL
ANTIOCH, ILLINOIS

AUGUST, 1992

PREPARED FOR:
WASTE MANAGEMENT OF NORTH AMERICA, INC.
WESTCHESTER, ILLINOIS

• • •

PREPARED BY:
WARZYN INC.
ADDISON, ILLINOIS

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APPENDIX A

MUNICIPAL WELL CONSTRUCTION INFORMATION

A1

EXCERPT FROM: "PUBLIC GROUNDWATER SUPPLIES IN LAKE COUNTY": STATE OF ILLINOIS, DEPARTMENT OF REGISTRATION AND EDUCATION, ILLINOIS STATE WATER SURVEY, BULLETIN 60-20, 1976, P. 10-12

ISWS/BUL-60(20)/76
BULLETIN 60-20
STATE OF ILLINOIS
DEPARTMENT OF REGISTRATION AND EDUCATION

Public Groundwater Supplies in Lake County

by DOROTHY M. WOLLER and JAMES P. GIBB

ILLINOIS STATE WATER SURVEY
URBANA
1976

ANTIOCH

The village of Antioch (3189) installed a public water supply in 1907. Two wells (Nos. 3 and 4) are in use and two wells (Nos. 1 and 2) are available for emergency use. In 1949 there were 500 services, all metered; the estimated average and maximum daily pumpages were 25,000 and 50,000 gpd, respectively. In 1974 there were 1400 services, all metered; the average and maximum daily pumpages were 575,000 and 850,000 gpd, respectively. The water is chlorinated and treated with polyphosphate to keep iron in solution. The natural fluoride concentration in the water is adequate to satisfy state requirements.

WELL NO. 1, finished in sand and gravel, was completed in 1907 to a depth of 216 ft by Charles Thorne, DeKalb. This well is available for emergency use. The well is located at the southwest corner of Orchard and Broadway Sts., approximately 1900 ft N and 1200 ft E of the SW corner of Section 8, T46N, R10E. The land surface elevation at the well is approximately 780 ft.

A 6-in. diameter hole was drilled to a depth of 216 ft. The well is cased with 6-in. steel pipe from 0.8 ft above the pumphouse floor to a depth of 207 ft followed by 9 ft of 4.5-in. Johnson screen.

On November 3, 1932, the nonpumping water level was reported to be 40 ft below the pump base.

The pumping equipment presently installed consists of a 20-hp U.S. electric motor (Serial No. 915264), a 6-in., 20 stage Peerless turbine pump set at 150 ft, rated at 150 gpm, and has 150 ft of 4-in. column pipe. A 30-ft section of 4-in. suction pipe is attached to the pump intake. The well is equipped with 150 ft of airline.

A mineral analysis made by the Illinois Environmental Protection Agency (Lab. No. B100780) of a sample collected July 15, 1974, after pumping for 1 hr, showed the water to have a hardness of 173 mg/l, total dissolved minerals of 327 mg/l, and an iron content of 0.16 mg/l.

WELL NO. 2, finished in sand and gravel, was completed in 1906 to a depth of 226 ft, and rebuilt in November 1949 to a depth of 231.5 ft by C. L. Wertz, Antioch. This well is available for emergency use. The well is located about 27 ft south of Well No. 1, approximately 1873 ft N and 1200 ft E of the SW corner of Section 8, T46N, R10E. The land surface elevation at the well is approximately 780 ft. #2

A drillers log of Well No. 2 follows:

Strata	Thickness (ft)	Depth (ft)
Soil	15	15
Gravel and clay	141	156
Quicksand	50	206
Coarse gravel	20	226
No record	5.5	231.5

A 10-in. diameter hole was drilled to a depth of 210 ft and finished 6 in. in diameter from 210 to 231.5 ft. The well is cased with 10-in. steel pipe from 0.6 ft above the pumphouse floor to a depth of 207.5 ft and a 6-in. pipe from 198.5 ft to a depth of 220.5 ft followed by 11 ft of 6-in. No. 100 slot pipe base Johnson Everdur screen.

On July 11, 1938, the nonpumping water level was reported to be 40 ft below the pump base.

On August 30, 1946, after a 1-hr idle period, the nonpumping water level was reported to be 39 ft below the pump base and after 30 min of pumping at 200 gpm, the drawdown was 22 ft.

In November 1949, after new casing and screen were installed, the well reportedly produced 200 gpm with a drawdown of 70 ft from a nonpumping water level of 45 ft below land surface.

On July 10, 1952, the well reportedly produced 115 gpm with a drawdown of 74 ft from a nonpumping water level of 58 ft.

The pumping equipment presently installed consists of a 20-hp General Electric motor (Serial No. SFJ801827), a 7-in., 7-stage Peerless turbine pump set at 130 ft, rated at 250 gpm, and has 130 ft of 5-in. column pipe. A 20-ft section of 4-in. suction pipe is attached to the pump intake. The well is equipped with 130 ft of airline.

A mineral analysis made by the Illinois Environmental Protection Agency (Lab. No. B100679) of a sample collected July 15, 1974, after pumping for 1 hr at 250 gpm, showed the water to have a hardness of 166 mg/l, total dissolved minerals of 311 mg/l, and an iron content of 0.26 mg/l.

Prior to the construction of Well No. 3, a 6-in. test well was drilled to a depth of 149 ft in December 1952 and had a nonpumping water level of 32.7 ft below land surface.

WELL NO. 3, finished in sand and gravel, was completed in October 1953 to a depth of 140.5 ft by the Layne-Western Co., Aurora. The well is located 500 ft south of Ida St. and 88 ft east of the Soo Line RR right-of-way, approximately 600 ft N and 2360 ft W of the SE corner of Section 8, T46N, R10E. The land surface elevation at the well is approximately 770 ft.

A sample study summary log of Well No. 3 furnished by the State Geological Survey follows:

Strata	Thickness (ft)	Depth (ft)
PLEISTOCENE SERIES		
Silt, buff, yellow	50	50
Clay, gray, laminated	20	70
Till, buff, gray, very silty	20	90
Sand, very fine to fine, well sorted, clean	5	95
Gravel, coarse, poorly sorted; till, brownish gray, sandy	5	100
Sand, fine well sorted, clean	5	105
Till gray, very silty	10	115
Gravel, granular to coarse, clean; sand medium to very coarse	15	130
Sand, very fine to very coarse, well sorted, clean; little till brownish gray	15	145
Silt, brownish gray, clayey	5	150

A 28-in. diameter hole was drilled to a depth of 140.5 ft. The well is cased with 12-in. ID black steel pipe from 0.8 ft above the pumphouse floor to a depth of 120.5 ft followed by 20 ft of 12-in. ID No. 5 (0.105 in.) Layne stainless steel shutter screen. The annulus between the bore hole and casing-screen assembly is filled with cement grout from 0 to 40 ft, with clay from 40 to 90.5 ft, and with gravel from 90.5 to 140.5 ft.

Upon completion, the well reportedly produced 596 gpm with a drawdown of 9 ft from a nonpumping water level of 41 ft below land surface.

On May 29, 1958, after 2 hr of pumping at a rate of 415 gpm, the drawdown was 7 ft from a nonpumping water level of 45 ft below the pump base.

On March 7, 1967, the well reportedly produced 457 gpm with a drawdown of 19 ft from a nonpumping water level of 44 ft.

In December 1970, the well reportedly produced 525 gpm with a drawdown of 9 ft from a nonpumping water level of 56 ft.

The pumping equipment presently installed consists of a 40-hp 1800 rpm U.S. electric motor (Serial No. 2308221), a 10-in., 7-stage Layne turbine pump (Serial No. 26899) set at 70 ft, rated at 400 gpm at about 235 ft TDH, and has 70 ft of 6-in. column pipe. A 10-ft section of 6-in. suction pipe is attached to the pump intake. The well is equipped with 70 ft of airline.

A mineral analysis made by the Illinois Environmental Protection Agency (Lab. No. B34773) of a sample collected March 1, 1976, after pumping for 1 hr at 500 gpm, showed the water to have a hardness of 237 mg/l, total dissolved minerals of 363 mg/l, and an iron content of 0.6 mg/l.

WELL NO. 4, finished in sand and gravel, was completed in June 1965 to a depth of 129 ft by the Layne-Western Co., Aurora. The well is located on Bartlett Road at the end

of McMillen Drive, approximately 350 ft N and 1500 ft W of the SE corner of Section 8, T46N, R10E. The land surface elevation at the well is approximately 770 ft.

A drillers log of Well No. 4 follows:

Strata	*Thickness (ft)*	*Depth (ft)*
Fill	3	3
Soft sandy yellow clay	5	8
Sand and gravel and boulders	16	24
Soft sticky gray clay, some thin sand streaks	56	80
Fine to coarse sand and gray clay	5	85
Fine gray sand	5	90
Blue clay	4	94
Very fine gray sand	8	102
Soft gray clay	3	105
Medium fine to coarse sand, some gravel and boulders 115 to 121 ft very coarse	16	121
Medium fine to coarse sand, gravel and boulders, not as much coarse stuff, also not as tight	4	125
Very coarse sand and gravel, some fine showing at 129 ft	4	129
Very fine gray sand	12	141

A 34-in. diameter hole was drilled to a depth of 15 ft, reduced to 30 in. between 15 and 26 ft, and finished 28 in. in diameter from 26 to 141 ft. The well is cased with 12-in. welded steel pipe from 2 ft above land surface to a depth of 109 ft followed by 20 ft of 12-in. No. 5 (0.105 in.) Layne stainless steel shutter screen. The annulus between the bore hole and casing-screen assembly is filled with cement grout from 0 to 40 ft, with pea gravel from 40 to 86 ft, and with Muscatine No. 3 gravel from 86 to 141 ft.

A production test using one observation well was conducted by the driller on June 22, 1965. After 8 hr of pumping at a rate of 632 gpm, the drawdown was 12 ft from a nonpumping water level of 32 ft below land surface.

On March 1, 1967, the well reportedly produced 800 gpm with a drawdown of 15 ft from a nonpumping water level of 34 ft.

In December 1970, the well reportedly produced 825 gpm with a drawdown of 14 ft from a nonpumping water level of 33 ft.

The pumping equipment presently installed is a 5-stage Jacuzzi oil-lubricated turbine pump (Model No. 10HCA6T-490) set at 75 ft, rated at 775 gpm at about 175 ft TDH, and powered by a 60-hp General Electric motor (Model No. 5K6257XHIA, Serial No. KAJ1006465).

The following mineral analysis made by the Illinois Environmental Protection Agency (Lab. No. B34770) is for a water sample from the well collected March 1, 1976, after 2 hr of pumping at 750 gpm.

WELL NO. 4, LABORATORY NO. B34770

		mg/l	*me/l*			*mg/l*	*me/l*
Iron	Fe	0.7		Silica	SiO_2	21	
Manganese	Mn	0.00		Fluoride	F	0.7	0.04
Ammonium	NH_4	1.2	0.07	Boron	B	0.4	
Sodium	Na	36	1.57	Nitrate	NO_3	0	0.00
Potassium	K	1.5	0.04	Chloride	Cl	4.5	0.13
Calcium	Ca	43	2.15	Sulfate	SO_4	43	0.89
Magnesium	Mg	29	2.39	Alkalinity (as $CaCO_3$)		256	5.12
Arsenic	As	0.00					
Barium	Ba	0.1		Hardness (as $CaCO_3$)		226	4.52
Copper	Cu	0.01					
Cadmium	Cd	0.00		Total dissolved minerals		329	
Chromium	Cr	0.00					
Lead	Pb	0.00					
Mercury	Hg	0.0000		pH (as rec'd)		8.4	
Nickel	Ni	0.0		Radioactivity			
Selenium	Se	0.00		Alpha *pc/l*		1.2	
Silver	Ag	0.00		±deviation		1.2	
Cyanide	CN	0.00		Beta *pc/l*		1.7	
Zinc	Zn	0.0		±deviation		1.2	

A 5-in. diameter test hole was constructed in July 1975 to a depth of 228 ft by the J. P. Miller Artesian Well Co., Brookfield. The test hole was located approximately 1320 ft S and 1250 ft W of the NE corner of Section 17, T46N, R10E. Upon completion, the nonpumping water level was reported to be 43 ft below land surface.

A2

LAYNE-WESTERN CO., 1953
(MUNICIPAL WELL #3)

Well Information for Layne-Western Co.

This sheet is to be filled in and mailed to office upon completion of well

1. Village of Antioch, Ill. (Name of Job) Nov. 4, 1953 (Date)

2. Antioch, Ill. (City) Ill. (State)

3. Well No. 3 Siefers (Driller's Name)

4. Well location: Southeast corner of town
Give Distance and Direction from Permanent Land Mark so Well can be Accurately Located Several Years from now.

5. Work began Oct. 19, 1953 Work completed Oct. 30, 53 Number of working days 10

6. Diameter, length and type of material left in well:

7. 20 feet of shutter (Shutter, Concrete, Keystone) screen made of stainless steel (Armco, Bronze, Stainless Steel, Concrete) No. 5 (Mesh) openings.

8. 122' 6" feet of 12 inch inside casing made of Std. Pipe (Armco, Std. Pipe, Concrete) with Welded (Riveted, Welded, Screw) connections.

9. ____ feet of ____ inch outside casing made of ____ (Armco, Std. Pipe) with ____ (Riveted, Welded, Screw) connections

10. 7 yards of gravel used in well. Size pea

11. Test of well. Did you use test or permanent pump? test (Size of Bowl) (Stages)

12. Pump No. ____; geared head No. ____; ratio ____; r.p.m. ____; pulley diam. ____

13. Power used ____ (Electric Motor, Engine); horse power ____; voltage ____; r.p.m ____; pulley diam. ____; r.p.m. ____

14. Size of orifice ____ inch, by ____ inch. Orifice tube reading ____ inches.

15. Pumping test—measurements from ground level:

Time	G.P.M.	Static	Drawdown	Pumping Level
	516	41'	9'	50'

16. Recovery in 5 minutes ____, in 30 minutes ____

17. Customer's pump No. ____ was installed in this well by ____

you seal bottom of well? yes Thickness 1/4 inches, material Steel plate

Was well under-reamed? no From ____ feet to ____ feet.

From ____ feet to ____ feet.

From ____ feet to ____ feet.

20. If all screen was not placed at bottom, state how it was spaced. all at bottom

From ____ feet to ____ feet; from ____ feet to ____ feet; from ____ feet to ____ feet.

21. Depth of (from ground level to top of plug) 140 feet 6 inches.

22. Was cement placed around or between any of the casings? yes

23. If, so, state where, how much and method used. cement grout, from 0' to 40'

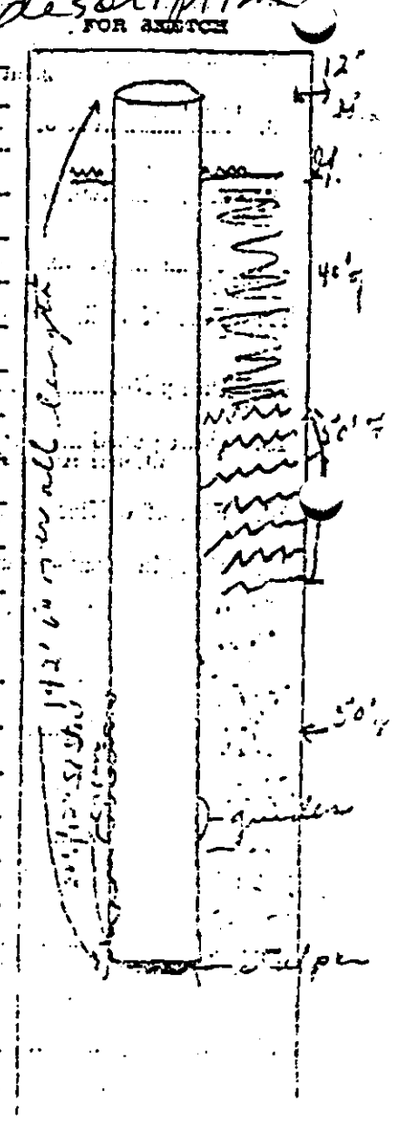
between 28" and 12"

24. Log of well from ground level:

differs from I6 description

Feet		Feet	Formation
0	to	1	Top Soil
1	to	13	Yellow Clay
3	to	85	Blue clay
85	to	97	Fine sand
97	to	99	Gravel
99	to	108	Fine sand
106	to	113	Blue Clay
113	to	143	Sand, gravel, boulders
143	to	145	Fine sand
145	to		Shale
	to		
	to		
	to		
	to		
	to		
	to		
	to		
	to		
	to		
	to		

FOR SKETCH



25. Remarks:

Antioch MW #3

Data	Thickness	Top	Bottom
Summary Sample Study by Lidia Selkregg 7/58.			
PLEISTOCENE SERIES			
Silt, buff, yellow, calcareous, oxidized	10		10
Silt, buff yellow, gray, calcareous, oxidized	40		50
Clay, gray, laminated, calcareous	20		70
Till, buff gray, very silty, calcareous	20		90
Sand, very fine to fine, well sorted, clean	5		95
Gravel, coarse, poorly sorted; till, brownish gray sandy, calcareous	5		100
Sand, fine; well sorted, clean	5		105
Fill, gray, very silty, calcareous	10		115
Gravel, granular to coarse, clean; sand, medium to very coarse, clean	10		125
Gravel, granular to coarse, clean	5		130
Sand, very coarse, well sorted, celan; gravel coarse	5		135
Sand, as above; little fill, brownish gray, silty calcareous	5		140
Sand, fine, well sorted, clean; little gravel	5		145
Silt, brownish gray, clayey, calcareous	5		150
Location corrected by Russ Brower.			

COMPANY Layne-Western Co.
WELL Village of Antioch NO. 3
DATE DRILLED October 1953 COUNTY NO. 1944
AUTHORITY Lidia Selkregg
ELEVATION
LOCATION NE NE
COUNTY LAKE S. S. # 23797

8-46N-10E

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner CREGG WENNSTROM Well No. Silver Lake Rd.
Address 42066 N. Deep Lake Rd., Antioch, Ill.
Driller GEORGE E. GAIFKE License No. 102-234
11. Permit No. 102976 Date 4/1/82
12. Water from Sand & Gravel (Formation) 13. County Lake
at depth 131 to 140 ft.
14. Screen: Diam. 5 in.
Length: 3 ft. Slot 10
Sec. 9 (?)
Twp. 46N
Rge. 10E
Elev.

SHOW LOCATION IN SECTION PLAT

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	PVC	+1	137

16. Size Hole below casing: 5 in.
17. Static level 75 ft. below casing top which is 1 ft. above ground level. Pumping level ____ ft. when pumping at 15-20 gpm for ____ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Topsoil	2	2
Brown Clay	10	12
Blue Clay	57	69
Gravel	3	71
Blue Clay	60	131
Sand & Gravel	9	140

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

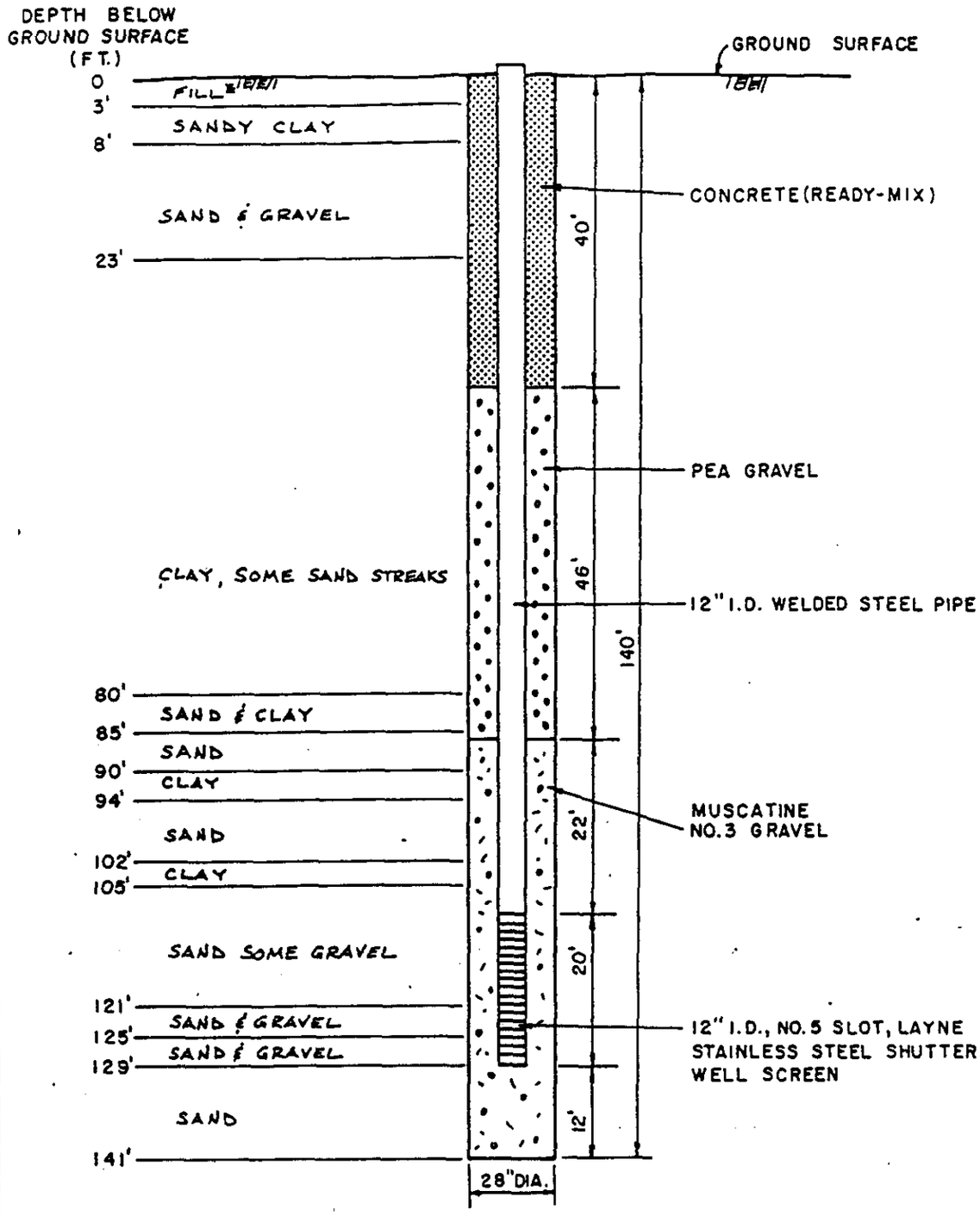
SIGNED George E. Gaifke DATE 12/14/82

9-46N-10E

NO LANDFILL

A3

LAYNE-WESTERN CO., 1965
(MUNICIPAL WELL #4)



NOTE:
THIS AS-BUILT DIAGRAM WAS PREPARED FROM INFORMATION CONTAINED IN "PUBLIC GROUNDWATER SUPPLIES IN LAKE COUNTY", PREPARED BY THE ILLINOIS STATE WATER SURVEY IN 1976.

* LITHOLOGIC DESCRIPTIONS TAKEN FROM THE DRILLERS LOG OF THE WELL.

FIGURE 17

AS-BUILT DIAGRAM FOR MUNICIPAL WELL NO. 4

Village Well 4

Layne-Western Company

721 ILLINOIS AVENUE AURORA, ILLINOIS

Well Information—Drift Wells

Name of Job Village of Antioch Date 7/6/65

City or Village Antioch State Ill.

Well No.: 4 Drillers: Siefers

Well Location: 200 ft. (N) and 1650 ft. (W) of the SE corner of

Section 8 Twp. 46 (N). Range 10 (E) Lake County.

Otherwise located as Approx. 620' east of Well #3

Work Began: Work Completed: Well Depth: 129' + 2' above G.L.

All measurements made from existing ground level at time well was drilled.

Casing Record:

Amount	Dia.	Wt. or Thickness	Material				
111	12		Steel pipe	with Welded	joints from +2' above G.L.	to 109'	
				with	joints from	to	

Screen Record: Type Shutter

Amount	Dia.	Opening	Material				
20	12	#5	Stainless Steel	with Welded	joints from 109'	to 129'	
				with	joints from	to	

Type of Seal at Bottom Steel Plate

Hole Record:

34	inch from	0	to	15
30'	inch from	15	to	26
28"		26		142

Gravel Pack Record:

Amount		Size		Source	From	To
13	ton	#3		Muscatine	132'	86'

Cementing Record: Grout from 0' to 40'

Backfill Record: Pea gravel from 40' to 86'

Village Well 4

WELL LOG

Feet		Feet	Description
0	to	3	Fill
3	to	8	Soft sandy yellow clay
8	to	24	Sand and gravel and boulders
24	to	80	Soft sticky gray clay, some thin sand streaks
80	to	85	Fine to coarse sand and gray clay
85	to	90	Fine gray sand
90	to	94	Blue clay
94	to	102	Very fine gray sand
102	to	105	Soft gray clay
105	to	121	Med. fine to coarse sand, some gravel and boulders
	to		115' to 121', very coarse
121	to	125	Med. fine to coarse sand, gravel and boulders, not as
	to		much coarse stuff, also not as tight.
125	to	129	Very coarse sand and gravel, some fine showing at 129'
129	to	141	Very fine gray sand
	to		
	to		
	to		
	to		
	to		
	to		
	to		

Well Test Data: Static Level 24'; pumping level 46' after 8 hours pumping at 632 g.p.m.

Length of test 8 hrs. See Well Test Data Sheet Dated Jan 22, 1965

REMARKS:

~~Pump test on separate sheet.~~

	to	3	Fill
3	to	8	Soft sandy yellow clay
8	to	24	Sand and gravel and boulders
24	to	80	Soft sticky gray clay, some thin sand streaks
80	to	85	Fine to coarse sand and gray clay
85	to	90	Fine gray sand
90	to	94	Blue clay
94	to	102	Very fine gray sand
102	to	105	Soft gray clay
105	to	121	Med. fine to coarse sand, some gravel and boulders
	to		115' to 121', very coarse
121	to	125	Med. fine to coarse sand, gravel and boulders, not as
	to		much coarse stuff, also not as tight.
125	to	129	Very coarse sand and gravel, some fine showing at 129'
129	to	141	Very fine gray sand
	to		
	to		
	to		
	to		
	to		
	to		
	to		

Well Test Data: Static Level 34'; pumping level 46 after 8 hours pumping at 632 g.p.m.

Length of test 8 hrs. See Well Test Data Sheet Dated June 22, 1965

REMARKS:

~~Pump test on separate sheet.~~

From Illinois State Water Survey, Batavia, Il
Oct. 18, 1985

October 4, 1965

WELL PRODUCTION TEST
VILLAGE OF ANTIOCH
LAKE COUNTY
by

Layne-Western Company

Owner:	Village of Antioch
Location:	350'E, 1500'N, SEcor T46NR10E-Sec 8.3a
Date of Test:	June 22, 1965
Length of Test:	8 hours
Date Drilled:	June 1965
Aquifer:	Sand & Gravel

WELL DATA

PUMPED WELL

Well No?	4
Driller:	Layne-Western Co.
Depth:	129'
Hole Record:	34" 0-15', 30" 15-26', 28" 26-142'
Casing Record:	12" 0-109' (cemented grout 0-40')
Screen Record:	12" #5 Layne Shutter Screen 109-129' (gravel packed from 40-132').
Pump & Power:	Layne Turbine, Gasoline Engine
Surface Elevation:	LSD 770' MSL
Measuring Point:	Top of casing, 2' above LSD
Measuring Equipment:	6x5' orifice, 80' airline
Static Level:	34' below MP

Observation Wells

Well No.	Depth	Dia. (in.)	Hole, casing, screen record	Distance, direction from pumped well
3	149	23	12" 0-129' 12" Layne Shutter Screen 129-149'	620' S of #4

...e of Antioch - Well #4

BUILDER'S LOG

Formation	Depth (Ft) From	To
Fill	0	3
Soft sandy yellow clay	3	8
Sand and gravel and boulders	8	24
Soft sticky grey clay, some thin sand streaks	24	80
Fine to coarse sand and grey clay	80	85
Fine grey sand	85	90
Blue clay	90	94
Very fine grey sand	94	102
Soft grey clay	102	105
Med. fine to coarse sand, some gravel and boulders 115 to 121' very coarse	105	121
Med. fine to coarse sand, gravel and boulders, not as much coarse stuff, also not as tight	121	125
Very coarse sand and gravel, some fine showing at 129'	125	129
Very fine grey sand	129	141

[illegible] Antioch - Well #4

Date 1965	Hour	Time (min)	Alt. gage (ft)	Depth to water (ft)	Draw-down (ft)	Diam. tube (in.)	Pump. rate (gpm)	Remarks
6/22	9:05 A		46	34				Started pumping
	9:10	5	36	44	10	27	632	Very, very cloudy
	9:15	10	36	44	10	27.5	638	
	9:30	25	36	44	10	27.5	638	
	10:00	55	35	45	11	27.5	638	Cloudy
	10:30	85	35	45	11	27	632	
	11:00	115	35	45	11	26.5	626	
	11:30	145	35	45	11	27	632	Clearing
	12:00 N	175	35	45	11	27	632	
	12:30 P	205	35	45	11	27	632	
	1:00	235	36	44	10	27	632	Well #3 off
	1:30	265	35	45	11	27	632	Well #3 on
	2:00	295	34	46	12	27	632	Dirty
	2:30	325	34	46	12	26.5	626	Clearing
	3:00	355	34	46	12	26.5	626	
	3:30	385	34	46	12	27	632	
	4:00	415	34	46	12	27	632	
	4:30	445	34	46	12	27	632	
	5:00	475	34	45	12	27	632	End of test

1st Hole Prior to Village Well 4

TEST HOLE No. 1-65

Layne-Western Company

721 ILLINOIS AVE. AURORA, ILL.

TEST WELL REPORT

1. Owner Village of Antioch Contract No. (CJ-254) Date 4/8/65
2. City Antioch State Ill.
3. Drillers Name Art Rogers Helpers Jim Barker
4. Static Water Level How Obtained — Washed ( ) Pumped ( )
5. Size Mud Pit — Length 6', Width 4'

DRILLERS LOG

TOP FT.	BOTTOM FT.	MUD LOSS INCHES	MUD WEIGHT	DESCRIPTION OF FORMATION	REMARKS
0	1			Brown top soil	
1	15			Brown sand and gravel	
15	18	9	9.8	Gray sand and gravel - boulders	
18	19			Boulders	
19	73			Gray clay	
73	89			Very soft clay, streaks, will jet	
89	98			Very fine sand	
98	108			Fine sand and streaks of clay	
108	161			Very fine sand to med. sand	
161	237			Very very fine sand, streaks of clay	
237	246			Very soft clay, gravel clay	
246	251			Limestone	

Test Hole Prior To Village Well 4

Layne-Western Company

721 ILLINOIS AVE. AURORA, ILL.

TEST HOLE No. 2-65

TEST WELL REPORT

1. Owner Village of Antioch Contract No. (CJ-254) Date 4/10/65
2. City Antioch State Ill.
3. Drillers Name Art Rogers Helpers
4. Static Water Level How Obtained — Washed ( ) Pumped ( )
5. Size Mud Pit — Length 6, Width 4

DRILLERS LOG

FROM FT.	BOTTOM FT.	MUD LOSS INCHES	MUD WEIGHT	DESCRIPTION OF FORMATION	REMARKS
0	10			Yellow Clay	
10	77			Gray clay, soft	
77	79			Gray sand	
79	81			Hard Clay, brownish gray	
81	92			Softer " " "	
92	96			Very soft silt, will jet	
96	103			Soft brownish clay	
103	104			Sand	
104	105			Clay	
105	107			Sand	
[illegible]	111			Clay	
111	121			Sand and gravel fine to med.	
121	129			Sand and gravel, med. to coarse gravel	
129	131			Sand	
131	132			Sand and gravel	
132	136			Sandy clay, streaks of sand	
136	140			Fine sand	
140	142			Clay	
142	236			Fine sand	
236	244			Brown clay, streaks of sand	
244	253			Sand and gravel and lime	
253	256			Limestone	

Test Hole [illegible]
Village Well 4

Layne-Western Company

721 ILLINOIS AVE. AURORA, ILL.

TEST HOLE No. 3-65

TEST WELL REPORT

1. Owner: Village of Antioch, Contract No. (CJ-254) Date: 3/15/65
2. City: Antioch State: Ill.
3. Drillers Name: Lyle Hill Helpers: John Siefers
4. Static Water Level: How Obtained — Washed ( ) Pumped ( )
5. Size Mud Pit — Length: 4' Width: 6'

DRILLERS LOG

TOP FT.	BOTTOM FT.	MUD LOSS INCHES	MUD WEIGHT	DESCRIPTION OF FORMATION	REMARKS
0	2			Black sandy soil	
2	5			Brown sand	
5	23			Fine gravel and sand, gray	
23	104.5			Light Gray, clay	
104.5	109			Fine sand, gravel and broken lime	
109	122.5			Fine sand, gravel and boulders	
122.5	123			Fine sand	
123	129			Fine sand, gravel and boulders	
129	135			Very fine sand, some gravel	
135	158			Very fine sand, occasional streaks of clay	

This hole is next to the existing Well #4.

A4

LAYNE-WESTERN CO., INC, 1978
(MUNICIPAL WELL #5)

From Feet		To Feet	Description
0	to	7	Hard brown clay
7	to	10	Gray silty clay
10	to	25	Gray silty clay with sand seams
25	to	40	Gray very silty clay
40	to	45	Gray clay
45	to	54	Gray sandy silty clay, traces of gravel, boulder at 4
54	to	63	Gray silty clay, sticky
63	to	76	Gray sandy silty with gravel intermixed, some small
	to		sand and gravel seams
76	to	91	Gray clay
91	to	93	Fine sand
93	to	97	Fine sand to coarse gravel
97	to	108.5	Very fine sand and/or silt (tight)
108.5	to	129	Fine sand to coarse gravel, tight, occasional boulde
129	to	131 T.D.	Fine to coarse sand
	to		
	to		
	to		
	to		
	to		
	to		
	to		
	to		

Data. Static Level 52' Pumping level 62' after 24 hours pumping at 715 g.p.m

of test 24 hrs. See Well Test Data Sheet Dated September 7 & 8, 1978

REMARKS:

WELL INFORMATION - DEEP WELLS

Layne-Western Company, Inc.

WATER SUPPLY CONTRACTORS

721 West Illinois Avenue • Aurora, Illinois 60507 • Phone 312/897-6941

Name of Job: Village of Antioch C-2950B Date: Aug. 26, 1978

Town or Village: Antioch State: Illinois

Well No.: 5 Drillers: John Kopp, Carl Glidewell

Location: 35 ft. (S) and 628 ft. (E) of the NW corner of SW 1/4 of NE 1/4

Section 17, Twp. 46 (N), Range 10 (E) Lake County.

Otherwise located as

Work Began: 8/14/78 Work Completed: 9/11/78 Well Depth: 129'

All measurements made from existing ground level at time well was drilled.

Casing Record:

Amount	Dia.	Wt. or Thickness	Material					
112'	16"	3/8" wall	steel	with	welded	joints from	+3'	to 109'
				with		joints from		to

Screen Record: Type: Johnson

Amount	Dia.	Opening	Material					
20'	16" OD	0.060"	stainless	with	welded	joints from	109'	to 129'
				with		joints from		to

Type of Seal at Bottom: Stainless steel plate

Hole Record:

42" inch from 0 to 40'

38" inch from 40' to 131' T.D.

Gravel Pack Record:

Amount	Size	Source	From	To
App. 20 ton	#1 & #2 Mix	Northern Gravel Company	130'	84'

Cementing Record: Concrete from 20' to 0

Backfill Record: Sand and clay from 84' to 20'

Other: SEE OTHER SIDE

B

APPENDIX B

RESIDENTIAL WELL CONSTRUCTION INFORMATION

19

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

Completed 9-3-68

10. Dept. Mines and Minerals permit No. NFW241 Year 68
11. Property owner ROBERT LECKE Well No. 1
Address RTH BOX 536 A ANTIOCH
Driller ENGLEMAN SONS INC License No. 92-109
12. Water from SAND (Formation) 13. County LAKE
at depth 126 to 146 ft.
14. Screen: Diam. 4 in.
Length: 2 ft. Slot 15
Sec. 9
Twp. 46N
Rng. 10E
Elev.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4"	T&C TAW STEEL #11.00	0	143
4	JOHNSON SCREEN	143	146

SHOW LOCATION IN SECTION PLAT
SW NW SW
(Permit)

16. Size Hole below casing: 4 in.
17. Static level 62 ft. below casing top which is 1 ft. above ground level. Pumping level 81 ft. when pumping at 25 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
TOP SOIL	4	4
YELLOW CLAY	10	4-14
BLUE CLAY	92	14-106
FINE SAND	20	106-126
SAND (WATER BEARING)	20	126-146
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED [signature] DATE 9-19-68

COUNTY No. 2680

LAKE 9-46N-10E

9-19

(13210—20M—3-56)

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Yellow clay		0	18
Grey clay		18	93
Sand to nice gravel		93	119
			TD
No sulphur			
Finished in sand to nice gravel.			
Casing: 3" galv. from 0 to 116'			
Size hole below casing: 3"			
Static level from surface: 30'			
Tested capacity: 25 gallons per minute.			
Water lowered: 5'			

Copied from records in office of C. L. Wertz
Approximately 900' N of Well No. 1

COMPANY	C. L. Wertz		
FARM	Wertz, C. L.	NO.	2
DATE DRILLED	March 1952	COUNTY NO.	37
AUTHORITY	C. L. Wertz		
ELEVATION			
LOCATION	1320' S line, 990' E line, of SE		
COUNTY	[illegible]		

7-46N-10E

(13210—20M—3-56)

1046

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Yellow clay		0	18
Grey clay		18	130
Sand, clean and water bearing		130	150
Red clay		150	222
Gravel, dirty and sulphur water		222	225
Limestone, some sulphur; water is quite soft.		225	232
			TD
Finished in limestone.			
Casing: 5" galv. from 0 to 232'			
Static level from surface: 30'			
Tested capacity: 15 gallons per minute.			
Water lowered: 8'			

130

780 elev

Location corrected by Russ Brower.

NO ENVELOPE

Copied from records in office of C. L. Wertz
Antioch, Illinois

COMPANY	C. L. Wertz		
FARM	Wertz, C. L.	NO.	1
DATE DRILLED	January 1948	COUNTY NO.	37
AUTHORITY	C. L. Wertz		
ELEVATION			
LOCATION	NW SE SE		
COUNTY	LAKE		

7-46N-10E

...YS SECTION. BE SURE TO

1045

1045

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

Completed 5-4-73

10. Dept. Mines and Minerals permit No. AF 17614 Year _____
11. Property owner Hinton Lindell Well No. 1
Address 309 Cedar Wood, Antioch
Driller C. L. WERTZ License No. 37
12. Water from Drift (Formation) 13. County Lake
at depth 102 to 103 ft.
14. Screen: Diam. 4 in.
Length: 31 ft. Slot 20
Sec. 7
Twp. 46N
Rng. 10E
Elev. 700

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5"	15 lb per	0	102

SHOW LOCATION IN SECTION PLAT
250' SL 250' EL of NW (permit)
755 elev

16. Size Hole below casing: [illegible] in.
17. Static level 12 ft. below casing top which is 1 ft. above ground level. Pumping level 20 ft. when pumping at 10 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM
Black peat	0 - 20		
Gray Clay	20 - 80		
Sand & gravel	80 - 105		
Clay at	105		
1			
(CONTINUE ON SEPARATE SHEET IF NECESSARY)			

SIGNED C. L. Wertz DATE May 9-73

3862

LAKE 7-46N-10E

(13210—20M—3-55)

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Clay		0	110
Red clay		110	103
Gravel (2' wide)		103	105
			TD

Finished in gravel.
Casing: 4" from 0 to 105'
Static level from surface: 40'
Tested capacity: 10 gallons per minute.
Water lowered: 20'

750
40

Copied from records in office of C. L. Wertz

COMPANY C. L. Wertz
FARM Ludley, Tom
DATE DRILLED Sept Mar 1951
AUTHORITY C. L. Wertz
ELEVATION
LOCATION
COUNTY LAKE

NO. 1
COUNTY NO. 212

7-46N-10E

1512

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

Completed 8-21-71

10. Dept. Mines and Minerals permit No. NF11889 Year 1971
11. Property owner John Newell Well No. 1
Address Rt 5 - Box 84
Driller C. L. WERTZ License No. 57
12. Water from Drift (Formation) 13. County Lake
at depth — to 97 ft.
14. Screen: Diam. — in.
Length: — ft. Slot —

Sec. 12
Twp. 46N
Rng. 9E
Elev. 756

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	galv steel 11 lb	0	97

SHOW LOCATION IN SECTION PLAT
600'SL 570'EL
of NW (permit)
753

16. Size Hole below casing: none in.
17. Static level 20 ft. below casing top which is 1 ft. above ground level. Pumping level 25 ft. when pumping at 10 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Br. clay & Top soil	15	15
Blue clay	75	90
Sand to fine gravel	7	97

750
90
60

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED C. L. Wertz DATE Aug 26-1971

COUNTY No. 3314

-46 E

STATE OFFICE BUILDING, SPRINGFIELD, L/WATER SURVEYS SECTION. BE SURE TO

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 10-23-72

10. Property owner Mc Kozel Well No. 1
Address 14309 McKinley Av. Posen, I
Driller C. L. Wertz License No. 57
11. Permit No. NF 15547 Date Oct 25-72
12. Water from Drift (Formation) 13. County Lake
at depth — to 98 ft.
14. Screen: Diam. — in.
Length: — ft. Slot —

Sec. 12
Twp. 46N
Rge. 9E
Elev. 750

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4"	galv 11 lb.	0	98

SHOW LOCATION IN SECTION PLA
600'SL 600
of NW (pe

16. Size Hole below casing: none in.
17. Static level 18 ft. below casing top which is 1 f above ground level. Pumping level 2 ft. when pumping at 10 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Br. clay 0-18		
Blue clay Firm 18-30		
" muck 30-60		
gray clay Firm 60-78		
sand fine + dirty 78-85		
" clean to fine 85		
gravel at 98		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED C. L. Wertz DATE Oct 28-7

COUNTY No. 3690

LAKE

12-46N-9E

...R SURVEYS SECTION. BE SURE TO

15

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 6-30-72

10. Property owner AAnen Falan Well No. 1
Address 5807 N. Elston Ave Chgo - Ill
Driller C. WERTZ License No. 57
11. Permit No. NF 14988 Date July 10-72
12. Water from Drift (Formation) 13. County Lake
at depth open end ft.
14. Screen: Diam. ____ in.
Length: — ft. Slot —
Sec. 2
Twp. 46N
Rge. 9E
Elev. 225

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	galv. 11 lb	0 To	120

SHOW LOCATION IN SECTION PLAT
800' SL 250' WL
of SW (permit)
770 elev

16. Size Hole below casing: none in.
17. Static level 30 ft. below casing top which is 1 ft. above ground level. Pumping level 35 ft. when pumping at 10 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay	0 To 9	
Gravel & clay	9 to 20	
Clay	20 to 50	
Red sand	50 to 64	
Black clay (peat) & sand	64 to 90	
Dirty sand	90 to 105	
Red clay	105 to 119	
Gravel	119 to 120	

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED C. L. Wertz DATE July 5-1972

COUNTY No. 3562

LAKE 2-46N-9E

...GICAL / WATER SURVEYS SECTION. BE SURE TO

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 8-3-72

10. Property owner J. Marussen Well No. 1
Address Rt 3 - Box 750
Driller C. L. Wertz License No. 57
11. Permit No. NF 15099 Date Aug 6-72
12. Water from Drift (Formation) 13. County Lake
at depth — to 170 ft.
14. Screen: Diam. — in.
Length: — ft. Slot —
Sec. 2
Twp. 46N
Rge. 9E
Elev. 800

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4"	11 lb galv	0	170

SHOW LOCATION IN SECTION PLAT
800' SL 750' WL
of SW (permit

16. Size Hole below casing: none in.
17. Static level 60 ft. below casing top which is 1 ft. above ground level. Pumping level 65 ft. when pumping at 10 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Hard Gravel 0 - 60		
Sand 60 - 80		
Red clay 80 - 100		
Fine sand & wood 100 - 104		
Black clay & sand 104 - 136		
Red clay 136 - 150		
Cemented gravel 150 - 170		
Clean fine gravel 170		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED C. L. Wertz DATE Aug 6-72

COUNTY No. 3606

LAKE 2-46N-9E

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUIRED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

1/67

1599 1599

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____. Bored ____. Hole Diam. 5 in. Depth 91 ft.
   Curb material ____. Buried Slab: Yes ____ No ____
   b. Driven ____. Drive Pipe Diam. ____ in. Depth ____ ft.
   c. Drilled ✓. Finished in Drift ✓. In Rock ____.
   Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Clay	0	20
Cuttings		

2. Distance to Nearest:
   Building 24 Ft. Seepage Tile Field 75
   Cess Pool ____ Sewer (non Cast iron) ____
   Privy ____ Sewer (Cast iron) ____
   Septic Tank 60 Barnyard ____
   Leaching Pit ____ Manure Pile ____
3. Is water from this well to be used for human consumption?
   Yes ✓ No ____
4. Date well completed June 5 – 68
5. Permanent Pump Installed? Yes ✓ No ____
   Manufacturer Red Jacket Type Submersible
   Capacity 10 gpm. Depth of setting 30 ft.
6. Well Top Sealed? Yes ✓ No ____
7. Pitless Adaptor Installed? Yes ✓ No ____
8. Well Disinfected? Yes ✓ No ____
9. Water Sample Submitted? Yes ✓ No ____

REMARKS: New well & water System.

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

10. Dept. Mines and Minerals permit No. NF3809 Year 1968
11. Property owner E C Huege Well No. ____
    Address Rt 3 - Box 326
    Driller C. L. Wertz License No. 57
12. Water from Drift (Formation) 13. County Lake
    at depth ____ to 91 ft. Sec. 9 ne
    Twp. 41 N
    Rng. 9 E
    Elev. 750
14. Screen: Diam. ____ in.
    Length: ____ ft. Slot ____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5"	15 lb - galv	0	
	seamless		91

SHOW LOCATION IN SECTION PLAT
1800 N
1200 W
SE/C SE

16. Size Hole below casing: None in.
17. Static level 5 ft. below casing top which is 1 ft. above ground level. Pumping level 10 ft. when pumping at 10 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top soil & clay gravel	15 To	15
Sand gravel	15 To	40
Sandy clay	40 To	88
Fine gravel stuck	88 To	91
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED C. L. Wertz DATE June 5 - 1968

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO [illegible]

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

1099

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam. 5 in. Depth 275 ft.
   Curb material _____. Buried Slab: Yes____ No____
   b. Driven____. Drive Pipe Diam. ____in. Depth ____ft.
   c. Drilled X. Finished in Drift____. In Rock X.
   Tubular____. Gravel Packed____.
   d. Grout:

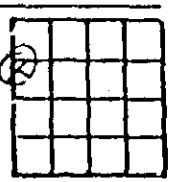
(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building _____ Ft. Seepage Tile Field _____
   Cess Pool _____ Sewer (non Cast Iron) _____
   Privy _____ Sewer (Cast Iron) _____
   Septic Tank _____ Barnyard _____
   Leaching Pit _____ Manure Pile _____
3. Well furnishes water for human consumption? Yes X No____
4. Date well completed 6/27/87
5. Permanent Pump Installed? Yes X Date 7/8/87 No____
   Manufacturer Red Jacket Type Subm. Location _____
   Capacity 10 gpm. Depth of Setting 120 Ft.
6. Well Top Sealed? Yes X No____ Type _____
7. Pitless Adapter Installed? Yes X No____
   Manufacturer Williams Model Number _____
   How attached to casing? clamp
8. Well Disinfected? Yes X No____
9. Pump and Equipment Disinfected? Yes X No____
10. Pressure Tank Size 82 gal. Type Champion
    Location _____
11. Water Sample Submitted? Yes X No____

REMARKS: Co # 29613

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner THE SUMMERS' GROUP Well No. Lot 12 Hickory Woods
    Address 5 Shoshoni, Lake Villa, IL
    Driller GEORGE E. GAFFKE License No. 102-2342
11. Permit No. 132365 Date 6/11/87
12. Water from Limestone (Formation) at depth 261 to 275 ft.
13. County Lake
    Sec. 13 SF
    Twp. 46N
    Rge. 10E
    Elev. _____
14. Screen: Diam. _____ in.
    Length: _____ ft. Slot _____



15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	PVC	+1	202
5	Black Steel	202	222

SHOW LOCATION IN SECTION PLAT
Lot #12 Hickory Woods
225' SA
NW SW NW 37

16. Size Hole below casing: 5 in.
17. Static level _____ ft. below casing top which is _____ ft. above ground level. Pumping level _____ ft. when pumping at 10-15 gpm for _____ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Brown Clay	16	16
Blue Clay	28	44
Mucky Sand-Lt. Gravel	45	89
Blue Clay	27	116
Sand-Gravel-Clay	79	195
Pink Clay	51	246
Broken Rock-Gravel	9	255
Pink Clay	6	261
Limestone	14	275

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED George E. Gaffke DATE 11/5/87

EQU[illegible]ED AND MAIL ORIGINAL TO STATE
SUM[illegible] HE[illegible]TH PROTEC[illegible]N, 535 WEST
[illegible]. DO NOT [illegible]TACH GEO[illegible]ICAL/WATER
PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner John Harding Well No. _____
Address Washington Antioch
Driller Charles Madsen License No. 42-202
11. Permit No. 110134 Date 10-25-83
12. Water from Sand (Formation) 13. County Lake
at depth 101 to 112 ft. Sec. 16.6b
14. Screen: Diam. 3 in. Twp. 46N
Length: 5 ft. Slot .010 Rge. 10E
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4"	Gal. Pipe	0	106
1"	Plastic	4	94

SHOW LOCATION IN SECTION PLAT
[illegible]

16. Size Hole below casing: 3 in.
17. Static level 81 ft. below casing top which is 1 ft. above ground level. Pumping level 97 ft. when pumping at 10 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Yellow Clay	21	21
Gravel & B Clay	30	51
B Clay	50	101
Sand	11	112
(42) 190		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [signature] DATE 6/14/84

NS TO DRILLERS

I REQUESTED AND MAIL ORIGINAL TO STATE
ONSUMER [illegible]ALTH PRO[illegible]TION, 535 WEST
52761. DO NOT DETACH GEOLOGICAL/WATER
IDE PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner WICKS HOMES by Jackson Enterprises Well No. Lincoln Ave.
Address 1819 E. Grand Ave., Lindenhurst, IL.
Driller GEORGE E. GAFFKE License No. 102-234
11. Permit No. 103455 Date 5/14/82
12. Water from Sand (Formation) 13. County LAKE
at depth 101 to 109 ft. Sec. 16.6b
14. Screen: Diam. 5 in. Twp. 46N
Length: 3 ft. Slot 10 Rge. 10E
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	PVC	+1½	106

SHOW LOCATION IN SECTION PLAT
[illegible]

16. Size Hole below casing: 5 in.
17. Static level 50 ft. below casing top which is 1½ ft. above ground level. Pumping level _____ ft. when pumping at 20 gpm for _____ hours.

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM	
Brown Clay		4	4	
Sand to Gravel (43)		19 21	25	
Blue Clay		60	85	
Hard Pan	780	10	95	776
Blue Clay - Gravel	50	6	101	101
Sand - Lt. Gravel	730	8	109	677

(CONTINUE ON SEPARATE SHEET IF NECESSARY) 16-46N-10E

SIGNED [signature] DATE 6/14/82

'61. DO NOT DETACH GEOLOGICAL/WATER
E PROPER LOCAT

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 7-9-77

10. Property owner RAY EDWARDS Well No. 1
Address RT 173 ANTIOCH ILL
Driller C. MADSEN License No. 92-202
11. Permit No. 61121 Date 5-24-77
12. Water from SAND (Formation) 13. County LAKE
at depth 106 to 112 ft.
14. Screen: Diam. 2 1/2 in.
Length: 5 ft. Slot 12
Sec. 16
Twp. 46N
Rge. 10E
Elev.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4"	GAL 11 PF	0	107

SHOW LOCATION IN SECTION PLAT
Lot4LagonaSub
NE SW(permit)

16. Size Hole below casing: 2 1/2 in.
17. Static level 60 ft. below casing top which is 1 1/2 ft. above ground level. Pumping level 84 ft. when pumping at 10 gpm for 1 hours. Sub. pump set at 84'

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM	
PEAT		8	8	
B C Clay	775	87	95	775
Fine Sand	60	10	105	105
C. Sand	715	7	112	670

44

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED C Madsen DATE

LAKE COUNTY No. 26559 16-46N-10E

761. DO NOT DETACH GEOLOGICAL/WATER
E PROPE LOCA

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 9-20-78

10. Property owner Steven Lazansky Well No.
Address 600 Piper Lane, Lake Villa
Driller Lonny R. Hoover License No. 102-783
11. Permit No. 79236 Date September 8, 1978
12. Water from sand (Formation) 13. County Lake
at depth 110 to 118 ft.
14. Screen: Diam. 4 in.
Length: 3 ft. Slot #15
Sec. 16
Twp. 46N
Rge. 10E
Elev.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Galvanized T&C	0	115
	14.81 ppf		

SHOW LOCATION IN SECTION PLAT
25'NL,50'WL
SE (permit)

16. Size Hole below casing: 4 in.
17. Static level 63 ft. below casing top which is 1 ft. above ground level. Pumping level 68 ft. when pumping at 9 gpm for 1 hours. Sub. pumn set at 84'

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM	
Clay	780	110	110	780 110
Sand	63	8	118	670
	717			

45

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Lonny R Hoover/sgn DATE 10-17-78

LAKE COUNTY No. 26566 16-46N-10E

DO NOT DETACH GEOLOGICAL WATER
DE PROPE LOCA

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 12-8-77

10. Property owner ADAM BARYS Well No. 1
Address LINCOLN DR - ANTIOCH ILL
Driller C. MADSEN License No. 92-202
11. Permit No. 68143 Date 10-14-77
12. Water from Sand (Formation) at depth 118 to 122 ft.
13. County LAKE
Sec. 16
Twp. 46N
Rge. 10E
Elev.
14. Screen: Diam. 2½ in.
Length: 5 ft. Slot 10

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Steel 11 PFT	0	118

SHOW LOCATION IN SECTION PLAT
Lot 16 Lagoona Su
800'SL, 400'WL S
SW (permit)

16. Size Hole below casing: 2½ in.
17. Static level 50 ft. below casing top which is 1½ ft. above ground level. Pumping level 63 ft. when pumping at 10 gpm for 2 hours Sub. pump set at 63'

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM	
Peat	775	12	12	775
Blue Clay	20	90	102	112
Fine Sand	775	10	112	663
Coarse Sand		10	122	
(46)				12
				767

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED C Madsen DATE

LAKE COUNTY NO. 26558 16-46N-10E

IN REQUESTED AND MAIL ORIGINAL TO STATE
CONSUMER HALTH PROTECTION, 535 WEST
62761. DO T DETACH JLOGICAL/WATER
VIDE PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Richard Good Well No. 2
Address Rt 2 Box 127A Antioch Ill.
Driller William A Blake License No. 92-[illegible]
11. Permit No. 94710 Date July 8, 1980
12. Water from drift (Formation) at depth 117 to 120 ft.
13. County Lake
Sec. 16
Twp. 46N
Rge. 10E
Elev.
14. Screen: Diam. 3¾ in.
Length: 3 ft. Slot 12

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	TTC Galv. 11.3 lbs/ft	Surface	117

SHOW LOCATION IN SECTION PLAT
NW NE SW

16. Size Hole below casing: 3 in.
17. Static level 75 ft. below casing top which is 1 ft. above ground level. Pumping level 54 ft. when pumping at 20 gpm for 1 hours.

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM	
Top Soil (47)		3	3	
Yellow clay		12	15	
Blue clay (Smooth)		18	33	
Sandy clay (Blue)		25	58	
Hard Pan	790	20	78	79
Gray clay (Silty)	75	37	115	11
Sand	715	5	120	6

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED William A Blake DATE 9-2-82

(65600—60M—10-57)

ICAL SURVEY, URBANA

	Thickness	Top	Bottom
ft	275	275	
Limestone	50	325	
Sulfur in water			

COMPANY Ausherman
FARM Dan Webb place
DATE DRILLED
AUTHORITY Ausherman
ELEVATION 820 ±
LOCATION Antioch Twp.

NO.
COUNTY NO. 1938

14-46N-10E

761. DO NOT DETACH GEOLOGICAL/WATER
E PROPE LOCA

1041

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 6-20-77

10. Property owner MICHAEL WARREN Well No. 1
Address SAVAGE RD. - ANTIOCH ILL
Driller C. MADSEN License No. 92-202
11. Permit No. 66642 Date 5-13-77
12. Water from SAND (Formation) 13. County LAKE
at depth 152 to 157 ft.
14. Screen: Diam. 2 1/2 in.
Length: 5 ft. Slot 10
Sec. 14
Twp. 46 N
Rge. 10 E
Elev.

SHOW LOCATION IN SECTION PLAT
SW NE SW
(permit)

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Steel 11 PF	0	152

16. Size Hole below casing: 2 1/2 in.
17. Static level 100 ft. below casing top which is 1 1/2 ft. above ground level. Pumping level 126 ft. when pumping at 10 gpm for 1 hours. Sub. pump set at 126'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
B. Dirt	2	2
Y. Clay	18	20
Sand & Clay	4	24
B. Clay	117	141
Fine Sand	6	147
C. Sand	10	157

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED C Madsen DATE

LAKE COUNTY No. 26557 14-46N-10E

(13210—20M—3-65)

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Brown clay		0	15
Blue clay		15	150
Sand, [illegible]		150	170

[illegible] in [illegible] sand.
Casing: [illegible]" galv. from 0 to 1[illegible]'
Size hole below casing: [illegible]"
Static level from surface: 80
Tested capacity: 1[illegible] gallons per minute.
[illegible] lowered: [illegible]'

Copies [illegible]

COMPANY C. L. Wertz
FARM [illegible], Harry
DATE DRILLED [illegible] 19[illegible]
AUTHORITY C. L. Wertz
ELEVATION
LOCATION [illegible]
COUNTY [illegible]

NO. 1
COUNTY NO. 151

1044 8 1D elev

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

Completed 6-21-71

10. Dept. Mines and Minerals permit No. NT 10[illegible]3 Year [illegible]
11. Property owner [illegible] Well No. [illegible]
Address [illegible]
Driller [illegible] License No. [illegible]
12. Water from [illegible] (Formation) 13. County [illegible]
at depth ____ to [illegible] ft.
14. Screen: Diam. ____ in.
Length: ____ ft. Slot ____

Sec. [illegible]
Twp. 45 N
Rng. 10 E
Elev. [illegible]

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
[illegible]	[illegible]	0	[illegible]

SHOW LOCATION IN SECTION PLAT 100' SL 750' W of SW (permit)

16. Size Hole below casing: [illegible] in.
17. Static level [illegible] ft. below casing top which is [illegible] ft. above ground level. Pumping level [illegible] ft. when pumping at [illegible] gpm for [illegible] hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Topsoil & clay—Brown	15	15
Blue clay	120	13[illegible]
Dirty gravel streak	2	137
Clay	8	145
gravel & sand	2	147
		[illegible]
		[illegible]
		[illegible]
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED C. L. Wertz DATE June 21-71

[illegible] 3218

TAKE

TOWN Lake Villa TOWNSHIP Map No. 3

COMPANY No. R. 10E

FARM Christensen No. T 46N Sec. 29

AUTHORITY

ELEVATION 820 SE SW

COLLECTOR Workman DATE DRILLED

CONFIDENTIAL

(Lake Villa)

No.	COUNTY NO. 2053 STRATA	Thickness Feet	Thickness In.	Depth Feet	Depth In.
	Clay	140		140	
	Sand, (shooting sand as in Witt well, some water in top but shoots too much to be able to develop it)	160		300	
	Limestone	20		320	
	Sandy crevice in rock 3 feet below top which caused well to be lost in limestone. Finally finished at 145 feet in sand; water level 75 feet from surface.				

County LAKE Index No. 0329

T.—DRILL RECORD

OFFICE BUILDING, SPRINGFIELD
ER SURVEYS SECTION BE SURE TO

#1004

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

Completed 2-27-69

10 Dept. Mines and Minerals permit No. NE 5366 Year 1969

11. Property owner LARSEN ENTERPRISES Well No. 1

Address [illegible]

Driller [illegible] License No. [illegible]

12. Water from SAND Formation 13. County LAKE

at depth 125 to 156 ft. Sec. 29

14. Screen: Diam. 6 in. Twp. 46N

Length: 5 ft. Slot 10-15 Rng. 10E

Elev.

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	GALV. T+C 19.45	0	145
6"	JOHNSON SCREEN	118	156

SHOW LOCATION IN SECTION PLAT
NE SW NE
(permit)

16. Size Hole below casing: 6 in.

17. Static level 75 ft. below casing top which is 1½ ft above ground level. Pumping level 126 ft. when pumping at 50 gpm for 10 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
TOP SOIL 184	5	0-5
YELLOW CLAY	10	5-15
BLUE CLAY 780 125	75	15-90
SANDY CLAY 65	20	90-110
BROWN CLAY	15	110-125
FINE SAND	31	125-156
SS. 56163		
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED [signature] DATE 3-17-69.

COUNTY No. 2843

(13210—20M—3-5[illegible]

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

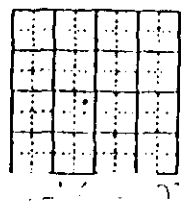
Strata	Thickness	Top	Bottom
Brown clay		[illegible]	15
Grey clay		1[illegible]	17[illegible]
[illegible] gravel at 1[illegible]		17[illegible]	[illegible]

Finished in sand and gravel.
Casing: [illegible]" from 0 to 1[illegible]'
Static level from surface: [illegible]7'
Tested capacity: 7 gallons per minute.
Water lowered: [illegible]'

[illegible] Lake

COMPANY C. L. [illegible]
FARM [illegible], Frank
DATE DRILLED [illegible] 19[illegible]
AUTHORITY C. L. [illegible]
ELEVATION
LOCATION [illegible]
COUNTY

NO. 1
COUNTY NO. 96



#1005

(13210—20M—3-55)

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Grey clay		0	1[illegible]
Dry gravel		16[illegible]	1[illegible]
Red clay		176	3[illegible]
Rock		310	[illegible]

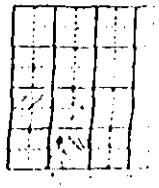
Finished in rock.
Casing: [illegible]" from 0 to 3[illegible]'
Static level from surface: 1[illegible]'
Tested capacity [illegible] gallons per minute (dynamited to increase flow)
Water lowered: [illegible]'

Copied from records in office of C. L. [illegible]

Crooked Lake, Illinois

COMPANY C. L. [illegible]
FARM Seliber
DATE DRILLED January 1950
AUTHORITY C. L. [illegible]
ELEVATION
LOCATION [illegible]
COUNTY

NO. 1
COUNTY NO. 164



(22844—50M—9-55)

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Soil	0	0	5
Yellow clay	15	5	20
Blue clay	110	20	130
Sand	70	130	200
Red clay	127	200	327
Rock	5	327	332
			TD

Finished in bed rock at 327' to 332'

Cased with 5" black pipe from 0' to 327'.

Static level from surface: 140'

Tested capacity: 20 gallon per minute

Length of test: 124 hours

Screen: Open hole

S.S. #21408

COMPANY Charles Madsen & Sons
FARM Jenke, H.
DATE DRILLED 1951
AUTHORITY Charles Madsen
ELEVATION 800' Est. T.M.
LOCATION S[illegible]
COUNTY LAKE

NO. 1
COUNTY NO. 1559

27-46N-10E

1006

(0—20M—3-55)

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Blue clay		0	1[illegible]
Muddy sand		1[illegible]	1[illegible]
Muddy to clean sand		15[illegible]	17[illegible]
Clay and fine sand		173	19[illegible]

Finished in clay and fine sand.
Casing: 4" galv. fr[illegible] to 1[illegible]'
Size hole below casing: 4"
Static level from surface: 70'
Tested capacity: 10 gallons per minute.

610
155
655

Copied from records in office of C. L. Wertz

COMPANY C. L. Wertz
FARM Hughes, Carl
DATE DRILLED August 1949
AUTHORITY C. L. Wertz
ELEVATION
LOCATION [illegible]
COUNTY LAKE

NO. 1
COUNTY NO. 165

27-46N-10E

NSUMER HEALTH PROTECTION, 535 WEST
DO NOT DETACH GEOLOGICAL WATER
E PROPER LOCATI

#10

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 5-11-77

10. Property owner KEN WISNIEWSKI Well No. 923 Brentwood
Address 1505 Woodbine Dr., Round Lake, IL.
Driller HENRY BOYSEN CO. License No. 102-6
11. Permit No. 57556 Date 3/10/77
12. Water from Sand-Gravel (Formation) 13. County Lake
at depth 185 to 190 ft. Sec. 27
14. Screen: Diam. 5 in. Twp. 46N
Length: 3 ft. Slot 10 Rge. 10E
Elev.

15. Casing and Liner Pipe

Diam (in)	Kind and Weight	From (Ft)	To (Ft)
5	PVC	grade	189

SHOW LOCATION IN SECTION PLAT
200'NL, 50'EL, NE NW SW (permit)

16. Size Hole below casing: 5 in.
17. Static level 113 ft. below casing top which is 1 ft. above ground level. Pumping level ____ ft. when pumping at 7-8 gpm for ____ hours. Sub. pump set at 180'.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Brown Clay	8	8
Blue Clay	147	155
Sandy Blue Clay	16	171
Sand - Lt. Gravel	2	173
Blue Clay - Lt. Gravel	12	185
Sand - Gravel	5	190
		83
		185

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [signature] DATE 11/23/77 +652

COUNTY No. [illegible]

NSUMER HEALTH PROTECTION, 535 WEST
761. DO NOT DETACH GEOLOGICAL WATER
E PROPER LOCATI

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 6-29-77

10. Property owner Vern Gardner Well No.
Address 1513 Henry Place, Waukegan
Driller L. R. Hoover License No. 102-78
11. Permit No. 62816 Date 6-23-77
12. Water from Sand (Formation) 13. County Lake
at depth 185 to 198 ft. Sec. 27
14. Screen: Diam. 5 in. Twp. 46N
Length: 3 ft. Slot #12 Rge. 10E
Elev.

15. Casing and Liner Pipe

Diam (in)	Kind and Weight	From (Ft)	To (Ft)
5	Galv. T & C	0	195
	14.81 ppf		

SHOW LOCATION IN SECTION PLAT
200'NL, 450' SW (permit)

16. Size Hole below casing: 5 in.
17. Static level 117 ft. below casing top which is 1 ft above ground level. Pumping level 117 ft. when pumping at 20 gpm for 1 1/2 hours. Sub. pump set at 147'.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Yellow clay	19	19
Blue clay	101	120
Tan clay	65	185
Sand	13	198

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Lonny R. Hoover / [illegible] DATE 9-13-77

COUNTY No [illegible]

STATE OFFICE BUILDING, SPRINGFIELD, /WATER SURVEYS SECTION. BE SURE TO

008

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 2-22-72

10. Property owner Mr. J. Schoelzel Well No. _____
Address Box 218, Antioch
Driller Henry Boysen Co. License No. 92480
11. Permit No. 13619 Date 2/16/72
12. Water from Gravel (Formation) 13. County Lake
at depth 148 to 160 ft. Sec. 23
14. Screen: Diam. 5 in. Twp. 46N
Length: 3 ft. Slot 10 Rge. 10E
Elev. _____

SHOW LOCATION IN SECTION PLAT
SW SW SW (permit)

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
5	galv.	grade	160

16. Size Hole below casing: 5 in.
17. Static level 80 ft. below casing top which is 1 ft. above ground level. Pumping level 85 ft. when pumping at 10 gpm for _____ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS Top	DEPTH OF BOTTOM
Red Clay	0	6
Blue Clay	6	40
Blue Clay	40	60
Blue Clay	60	80
Blue Clay	80	100
Blue Clay	100	120
Hard Pan	120	140
Clay, Gravel	140	160
	145	

80
145
155

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED J. Plitter DATE 12-27-72

COUNTY No. 3784

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed February, 1972

10. Property owner Kangas Const. Well No. _____
Address 433 North Ave, Waukegan
Driller Hoover License No. _____
11. Permit No. NF 13688 Date 2/24/72
12. Water from Sand (Formation) 13. County Lake
at depth 106 to 110 ft. Sec. 23
14. Screen: Diam. 4 in. Twp. 46N
Length: 3 3/4 ft. Slot 12 Rge. 10E
Elev. _____

SHOW LOCATION IN SECTION PLAT
950' NL 750' of SE (per

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
4	galv T + C	0	107
	10.89 ppf		

16. Size Hole below casing: 4 in.
17. Static level 70 ft. below casing top which is 1 ft above ground level. Pumping level 75 ft. when pumping at 10 gpm for _____ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
yellow clay	15	15
blue clay	70	85
hard pan	21	106
sand	4	110

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED R. C. Howard DATE 3/1/72

COUNTY No. 3497

LAKE

23-50N-10E

[illegible] HEALTH [illegible]
DO NOT DETACH GEOLOGICAL/WATER
OPER[illegible] LOCATIO[illegible]

1004

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 3-9-78

10. Property owner MARIANNE GUY Well No. GWHITE & [illegible]
Address Hewitt Assoc. 102 Wilmot rd. Deerfield [illegible]
Driller Henry Boyson Co. License No. 102-6
11. Permit No. 70901 Date 1/24/78
12. Water from Sand Gravel (Formation) 13. County Lake
at depth 127 to 132 ft. Sec. 23
14. Screen: Diam. 5 in. Twp. 46N
Length: 3 ft. Slot 10 Rge. 10E
Elev.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
130	PVC	GRADE	130

SHOW LOCATION IN SECTION PLAT
100' [illegible], 150' [illegible] (permit)

16. Size Hole below casing: 5 in.
17. Static level 75 ft. below casing top which is 1 ft. above ground level. Pumping level ___ ft. when pumping at 15 gpm for ___ hours. Sub. pump set at 105'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
BROWN CLAY	12	12
BLUE CLAY	23	35
GRAVEL	2	37
BLUE CLAY	90	127
SAND - GRAVEL	5	132

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [signature] DATE 6/15/78

COUNTY No. 25896

[illegible]16, STATE OFFICE BUILDING, SPRINGFIELD,
[illegible]ICAL / WATER SURVEYS SECTION. BE SURE TO

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 1-30-75

10. Property owner KEN CHURCH Well No. 1
Address BLUFF LAKE RD - ANTIOCH, ILL
Driller C. MADSEN License No. 92-20[illegible]
11. Permit No. 35777 Date 1-24-75
12. Water from SAND (Formation) 13. County LAKE
at depth 53 to 57 ft. Sec. 23
14. Screen: Diam. 1¼ in. Twp. 46N
Length: 4 ft. Slot 10 Rge. 10E
Elev.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
2"	GAL 3.65		
	PLUGED &	0	53
	REAMED		

SHOW LOCATION IN SECTION PLAT
1200'SL 1400 [illegible]SE (permit)

16. Size Hole below casing: 1¼ in.
17. Static level 20 ft. below casing top which is 15" ft. above ground level. Pumping level 20 ft. when pumping at 10 gpm for 1 hours. Sub. pump set at 30'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
YELLOW CLAY	12	12
SAND & GRAVEL	28	40
BLUE CLAY	13	53
COURSE SAND	~~53~~	57

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Charles Madsen DATE 1-30-75

COUNTY No. 26662

[illegible]AKE

OFFICE BUILDING, SPRINGFIELD,
ER SURVEYS SECTION. BE SURE TO

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

Completed 3-6-68

10. Dept. Mines and Minerals permit No. NF3591 Year 68
11. Property owner BRUNING DUCATA Well No. 1
Address 472 - BOX 283 ANTIOCH ILL.
Driller E.H. GLENN & SONS INC License No. 92-109
12. Water from WATER SAND (Formation) 13. County LAKE
at depth 120 to 149 ft.
14. Screen: Diam. 5 in.
Length: 4 ft. Slot 20

Sec. 22
Twp. 46N
Rng. 10E
Elev.

SHOW LOCATION IN SECTION PLAT
SW NE SE
(Permit)

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5"	GALV STEEL 15#	0	145
5"	JOHNSON SCREEN	145	149

16. Size Hole below casing: 5 in.
17. Static level 90 ft. below casing top which is _____ ft. above ground level. Pumping level 100 ft. when pumping at 20 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
TOP SOIL	1	0-1
YELLOW CLAY	20	1-21
SAND & BLUE CLAY	73	21-94
SAND	6	94-100
BLUE CLAY	20	100-120
SAND & GRAVEL (WATER BEARING)	29	120-149
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED [signature] DATE 3-29-68

COUNTY NO. 2456

JMER HEALTH PROTECTION, 535 WEST
DO NOT DETACH GEOLOGICAL/WATER
PROPER WE LOCATION

#1010

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 11-14-77

10. Property owner Woodland Const Well No. _____
Address 1819 E Grand Ave, Lindenhurst
Driller L.R. Hoover License No. 102-78
11. Permit No. 66323 Date 9-6-77
12. Water from Sand (Formation) 13. County Lake
at depth 158 to 163 ft.
14. Screen: Diam. 4 in.
Length: 3 ft. Slot #15

Sec. 22
Twp. 46N
Rge. 10E
Elev.

SHOW LOCATION IN SECTION PLAT
200'SL, 250'EL
NE SW SE
(permit)

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	New Gale T&C	0	161
	14.81 ppf		

16. Size Hole below casing: 4 in.
17. Static level 95 ft. below casing top which is 1 ft. above ground level. Pumping level 115 ft. when pumping at 12 gpm for 3 hours. Sub. pump set at 126'.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Brown clay	15	15
Clay & gravel	70	85
Hardpan	8	93
Clay	3	96
Hardpan	9	105
Gravely clay	15	120
Sticky clay	8	128
Sand	4	132
Dry gravely clay	13	145
Sloppy clay	4	149
Gravel	1	150
Sand and clay	6	156
Sand	7	163

8.00
158
x 64.2

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Lonny R Hoover/egn DATE 12-13-77

COUNTY NO. 25042

22-46N-10E

SUMER HEALTH PROTECTION, 535 WEST
DO NOT DETACH GEOLOGICAL/WATER
PROPER WELL LOCATION

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 1-16-78

10. Property owner Woodland Const. Well No. Siegel
Address 1819 E. Grand Ave, Lindenhurst
Driller L. R. Hoover License No. 102-78
11. Permit No. 66324 Date 9-6-77
12. Water from sand (Formation) 13. County Lake
at depth 127 to 132 ft.
14. Screen: Diam. 4 in.
Length: 3½ ft. Slot #8
Sec. 22
Twp. 46N
Rge. 10E
Elev.

SHOW LOCATION IN SECTION PLAT
50'NL 300'EL
SW SW SE
(permit)

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	New Galv. T+C	0	129
	14.81 ppf		

16. Size Hole below casing: 4 in.
17. Static level 75 ft. below casing top which is 1 ft. above ground level. Pumping level 90 ft. when pumping at 10 gpm for 1½ hours.
Sub. pump set at 105'.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay	75	75
Gravel & clay	10	85
Clay	42	127
Sand	5	132

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Lonny R. Hoover/[illegible] DATE 1-[illegible]-78

LAKE COUNTY No. 25-53 46N-10E

DO NOT DETACH GEOLOGICAL/WATER
PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner E.W. WISWALD BLDRS Well No.
Address 205 W. MONAVILLE RD LAKE VILLA
Driller L.R. HOOVER License No. 102-783
11. Permit No. 110267 Date 11-8-83
12. Water from Clay (Formation) 13. County LAKE
at depth 129 to 131 ft.
14. Screen: Diam. 4 in.
Length: 3'6" ft. Slot 20
Sec. 22
Twp. 46N
Rge. 10E
Elev.

SHOW LOCATION IN SECTION PLAT
300'S & 150'W of the NE/c SW NW SW

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Galv T+C.	0	129
	11.13 ppf		

16. Size Hole below casing: 4 in.
17. Static level 80 ft. below casing top which is 3 ft above ground level. Pumping level 105 ft. when pumping at [illegible] gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay	92	9[illegible]
Hardpan	26	11[illegible]
Clay	11	1[illegible]
Gravel & Sand	2	13
Clay	1	13[illegible]

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Lonny R Hoover/[illegible] DATE 5-24-84

22 46N 10E

LOG OF WATER WELL

Property owner A. Mokkalhost (Mokkalhost) Well No. 1

Drilled by Chas. Madsen Year 1941

Formations passed through	Thickness	Depth of Bottom
Soil	3	3
Yellow Clay	17	20
Blue "	76	96
Coarse Sand	7	103

COUNTY NO. 2009 No Envelope

(Continue on back if necessary)

Finished in Coarse Sand at 103 to ft.

Cased with 2 inch Galv. pipe from 0 to 99 ft.

and inch from to ft.

Size hole below casing 1 inch. Static level from surf. 40 ft.

Tested capacity 12 gal. per min. Temperature 57 °F.

Water lowered to ft. in. in hrs. min.

Length of test 1 hrs. 20 min. Screen Clayton Mills

Slot 60 Diam. 1 Length 4 Bottom set at 103 ft.

(Show location in Section Plat)

Township name Antioch Elev. Sec. 21

Description of location Lot 16, Villa Twp. 46N

Lake Shore Loon Lake Rge. 10E

Signed Chas. Madsen County Lake

Copy for Illinois State Geological Survey Index: 21-46N-10E

LOG OF WATER WELL

#1012

Property owner Mrs. Kasparek Well No. 1

Drilled by Chas. Madsen Year 1941

Formations passed through	Thickness	Depth of Bottom
Soil	3	3
yellow sand	4	7
Yellow clay	15	22
blue clay	75	97
fine sand	6	103

COUNTY NO. 1993 No Envelope

(Continue on back if necessary)

Finished in fine sand at 99 to 103 ft.

Cased with 2 inch Galv. pipe from 0 to 99 ft.

and — inch — from — to — ft.

Size hole below casing — inch. Static level from surf. 55 ft.

Tested capacity 8 gal. per min. Temperature — °F.

Water lowered to — ft. — in. in — hrs. — min.

Length of test 1 hrs. — min. Screen Clayton Mills

Slot 80 Diam. 1 in Length 4 ft Bottom set at 103 ft.

(Show location in Section Plat)

Township name Antioch Elev. Sec. 21

Description of location Northloon Twp. 46N

Lakeshore Lot #31 Rge. 10E

Signed Chas. Madsen County Lake

Copy for Illinois State Geological Survey Index: 21-46N-10E

#1013

LOG OF WATER WELL

Property owner T. Miller Well No. 1

Drilled by Chas Madsen Year 1945

Formations passed through	Thickness	Depth of Bottom
Soil	1	1
yellow clay	16	17
blue clay	67	84
sand	6	90
blue clay	4	94
fine sand	6	100
Coarse sand	4	104

[illegible] 2010 No Envelope

[Continue on back if necessary]

Finished in Coarse sand at 100 to 104 ft.

Cased with 2 inch Gal pipe from 0 to 101 ft.

and — inch — from — to — ft.

Size hole below casing — inch. Static level from surf. 60 ft.

Tested capacity 10 gal. per min. Temperature — °F.

Water lowered to — ft. — in. in — hrs. — min.

Length of test 1 hrs. — min. Screen Clay Ice Marks

Slot 60 Diam. 1 in Length 3 ft Bottom set at 104 ft.

[Show location in Section Plat]

Township name Antioch Elev. Sec. 21

Description of location Loon Lake Twp. 46

Rge. 10

Signed Chas Madsen County Lake

Copy Scale Scale Survey Index: 21-46N-10E

—20M—3-55

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Brown clay		0	[illegible]
Blue clay and sand at base		1[illegible]	1[illegible]
Sand and gravel		1[illegible]	1[illegible]

Finished in sand and gravel.
Casing: 2" from 0 to 1[illegible]3'
Size hole below casing: [illegible]"
Static level from surface: [illegible]'
Tested capacity: 10 gallons [illegible] minute.
Water lowered: 6'

94

[illegible]

COMPANY C. [illegible] Ortz
FARM [illegible], [illegible]
DATE DRILLED October 19[illegible]
AUTHORITY [illegible] Ortz
ELEVATION
LOCATION [illegible]

NO. [illegible]
COUNTY NO. 94

LOG OF WATER WELL

#1016

Property owner Wm. Erdinbergus Well No. 1

Drilled by Chas Madsen Year 1945

Formations passed through	Thickness	Depth of Bottom
Soil	1	1
yellow clay	18	19
blue clay	64	83
fine sand & clay	20	103
coarse sand	3	106

1985 No Envelope

(Continue on back if necessary)

Finished in Coarse Sand at 103 to 106 ft.

Cased with 2 inch Galv pipe from 0 to 103 ft.

and — inch — from — to — ft.

Size hole below casing — inch. Static level from surf 60 ft.

Tested capacity 10 gal. per min. Temperature — °F.

Water lowered to — ft. — in. in — hrs. — min.

Length of test 1 hrs. — min. Screen Clayton Marks

Slot 60 Diam 1 in Length 3 ft Bottom set at 106 ft.

(Show location in Section Plat)

Township name Antioch Elev. — Sec. 21

Description of location Loon Lake Twp. 46

Rge. 10

Signed Chas Madsen County Lake

Copy for Illinois State Geological Survey Index: 21-46N-10E

LOG OF WATER WELL

#15

Property owner J. Dorsch Well No. 1

Drilled by Chas Madsen Year 1946

Formations passed through	Thickness	Depth of Bottom
Soil	1	1
yellow clay	19	20
blue clay	38	58
sand & gravel	21	79
blue clay	24	103
fine sand	7	110
coarse sand	3	113

1987 No Envelope

(Continue on back if necessary)

Finished in Coarse Sand at 110 to 113 ft.

Cased with 2 inch Galv pipe from 0 to 110 ft.

and — inch — from — to — ft.

Size hole below casing — inch. Static level from surf 50 ft.

Tested capacity 10 gal. per min. Temperature — °F.

Water lowered to — ft. — in. in — hrs. — min.

Length of test 1 hrs. — min. Screen Clayton Marks

Slot 60 Diam 1 in Length 3 ft Bottom set at 113 ft.

(Show location in Section Plat)

Township name Antioch Elev. — Sec. 21

Description of location Loon Lake Twp. 46N

SE SW NE Rge. 10E

Signed Chas Madsen County Lake

Copy for Illinois State Geological Survey Index: 21-46N-10E

1017

(33210—20M—3-55)

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Brown clay		0	1[illegible]
Blue clay		10	110
Heaving sand		1[illegible]0	1[illegible]5'
			TD

Finished in heaving sand.
Casing: 4" galv. from 0 to 1[illegible]2'
Size hole below casing: 4"
Static level from surface: 65'
Tested capacity: 10 gallons per minute.

Copied from records in office of C. L. Wertz
Loon Lake, Illinois

COMPANY C. L. Wertz
FARM Bergren, John
DATE DRILLED September 1949
AUTHORITY C. L. Wertz
ELEVATION
LOCATION [illegible]

NO. 1
COUNTY NO. 159

LOG OF WATER WELL

Property owner J. Bishee Well No. 1

Drilled by Chas Madsen & Sons Year 1949

Formations passed through	Thickness	Depth of Bottom
Soil	2	2
Yellow clay	16	18
Blue clay	74	92
fine sand	13	10[illegible]
Coarse sand	4	109

1978 [illegible]

(Continue on back if necessary)

Finished in Coarse sand at 105 to 109 ft

Cased with 2 inch Gal pipe from 0 to 105 ft

and — inch — from — to — ft

Size hole below casing — inch. Static level from surf. 40 ft

Tested capacity 10 gal. per min. Temperature — °F

Water lowered to — ft. — in. in — hrs. — min

Length of test 1 hrs. — min. Screen Clayton Mark

Slot 60 Diam. 1" Length 4 ft Bottom set at 109 ft

(Show location in Section Plat)

Township name Antioch Elev. 2 Sec. 21

Description of location Loon Lake Twp. 46

Rge. 10

Signed [illegible]

018

LOG OF WATER WELL

Property owner P. Schulz Well No. 1

Drilled by Chas Madsen Year 1947

Formations passed through	Thickness	Depth of Bottom
Soil	1	1
yellow clay	18	19
Clay + gravel	72	91
fine sand	2	93
Coarse sand	4	97

COUNTY NO. 2022 No Envelope

(Continue on back if necessary)

Finished in Coarse sand at 93 to 97 ft.

Cased with 2 inch Gal pipe from 0 to 93 ft.

and — inch — from — to — ft.

Size hole below casing — inch. Static level from surf. 45 ft.

Tested capacity 10 gal. per min. Temperature — °F.

Water lowered to — ft. — in. in — hrs. — min.

Length of test 1 hrs. — min. Screen Clayton Marks

Slot 60 Diam. 1" Length 4 ft. Bottom set at 97 ft.

(Show location in Section Plat)

Township name Antioch Elev. Sec. 21

Description of location Loon Lake Twp. 46

Rge. 10

Signed Chas Madsen County LAKE

Copy for Illinois State Geological Survey Index: 21-46N-10E

LOG OF WATER WELL

Property owner A. Schroeder Well No. 1

Drilled by Chas Madsen Year 1947

Formations passed through	Thickness	Depth of Bottom
Soil	3	3
yellow Clay	19	22
Clay	86	108
fine sand	3	111
Coarse sand	4	115

COUNTY NO. 2021 No Envelope

(Continue on back if necessary)

Finished in Coarse sand at 111 to 115 ft.

Cased with 2 inch Gal pipe from 0 to 111 ft.

and — inch — from — to — ft.

Size hole below casing — inch. Static level from surf. 50 ft.

Tested capacity 10 gal. per min. Temperature — °F.

Water lowered to — ft. — in. in — hrs. — min.

Length of test 1 hrs. — min. Screen Clayton Marks

Slot 60 Diam. 1" Length 4 ft. Bottom set at 115 ft.

(Show location in Section Plat)

Township name Antioch Elev. Sec. 21

Description of location Loon Lake Twp. 46N

Rge. 10E

Signed Chas Madsen County LAKE

Copy for Illinois State Geological Survey Index: 21-46N-10E

REQUESTED AND MAIL ORIGINAL TO STATE
ONSUMER HEALTH PROTECTION, 535 WEST
52 . DO NOT DETACH GEOLOGICAL/WATER
IDE PROP WELL LOC ON.

#10

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner GENE THIELE Well No. _____
Address 22794 W. LOON LAKE BLVD - ANTIOCH.
Driller C. MADSEN License No. 92-203
11. Permit No. 96449 Date 10-3-80
12. Water from SAND (Formation) 13. County LAKE
at depth 121 to 126 ft.
14. Screen: Diam. 3 in.
Length: 5 ft. Slot .010
Sec. 21.7
Twp. 46N
Rge. 10E
Elev. _____

11	7		
14	9		
x			

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	GAL 11PF	0	121

SHOW LOCATION IN SECTION PLAT
Lot 10 Villa Ri
Subd. SE SW

16. Size Hole below casing: 3 in.
17. Static level 102 ft. below casing top which is 1 ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
YELLOW CLAY	21	21
B CLAY	17	39
SAND	45	84
B CLAY	34	118
SAND	8	126

(CONTINUE ON SEPARATE SHEET IF NECESSARY) 21-46N-10E

SIGNED Charles E Madsen DATE 9/80

REQUESTED AND MAIL ORIGINAL TO STATE
ONSUMER ALTH PROTECTION, 535 WEST
2761. DO N DETACH GEOLOGICAL/WATER
IDE PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner John Payne Well No. 1
Address 4045 N Lechman Chicago IL
Driller William Blake License No. 92-510
11. Permit No. 96434 Date 10-9-79
12. Water from Drift (Formation) 13. County Lake
at depth 122 to 126 ft.
14. Screen: Diam. 3 in.
Length: 4 ft. Slot 10
Sec. 21.3e
Twp. 46N
Rge. 10E
Elev. _____

	x		

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	T&C Galv [illegible]	Surface	122

SHOW LOCATION IN SECTION PLAT
SE SW NE

16. Size Hole below casing: 3 in.
17. Static level 16 ft. below casing top which is 1 ft. above ground level. Pumping level 15 ft. when pumping at 20 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Yellow Clay	12	12
Blue Clay	13	25
Smooth Clay 16-11	15	40
Hard Pan	7	47
Sandy Clay	75	122
Sand	4	126

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [illegible] DATE 11-13-79
21-46N-10E

Town Township Antioch

Company Henry Boyson, Jr. No.

Farm Pullens-Resettlement Adm. No. 27

Authority Resettlement Administration

Elevation

Collector

Confidential Date Drilled 1936

Map No. R. 10E T. 46 N Sec. 14 SW NE

No.	COUNTY NO. 1936 Strata	Thickness Feet	Thickness In.	Depth Feet	Depth In.
	Clay, yellow	20		20	
	Clay, blue	45		65	
	Clay, sandy, blue	11		76	
	Clay, blue	42		118	
	Clay, sandy, blue	12		130	
	Sand, fine	35		165	
	Sand, gravel and clay	5		170	
	Gravel and clay	8		178	
	Gravel and quicksand	12		190	
	Lake sand, sharp	11		201	
	Sand and clay, red	11		212	
	Clay, red	9		221	
	Gravel and clay	11		232	
	Quicksand	8		240	
	Clay and gravel	7		247	
	Sand and clay	21		268	
	Sand and gravel	2		270	
	Sand, sharp	2		272	
	Limestone and sand	3		275	
	61'8" of 3" casing				
	Depth to water 75'				
	Pumping depth 185'				
	Pump down 110'				
	4 g.p.m.				
	261' of 4½" casing				

COUNTY. Lake

DRILL RECORD

INDEX NO. 14-46N-10E

...ICAL AND WATER SURVEYS SECTION. BE SURE TO

#1042

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 3-1-74

10. Property owner Charlie White Well No.
Address Rt 2, Box 345, Antioch
Driller Hartell License No. 30
11. Permit No. 27835 Date 2/25/74
12. Water from Gravel Formation 13. County Lake
at depth 133 to 134 ft.
14. Screen: Diam. — in.
Length: ____ ft. Slot ____
Sec. 14
Twp. 46N
Rge. 10E
Elev. ____

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
.5	Galv T+C 14.81 #/ft	0	134

SHOW LOCATION IN SECTION PLAT
350'SL 350'WL of SW (permit)

16. Size Hole below casing: .5 in.
17. Static level 70 ft. below casing top which is 1 ft. above ground level. Pumping level 90 ft. when pumping at 4 gpm for ____ hours. Submersible pump set at 105'.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Sandy Clay	18	18
Blue Clay	89	107
Gravel & Clay	26	133
Gravel	1	134
TOT		
133		
667		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED L C Thurow DATE 3/20/74

COUNTY No. 24185

DRILLERS

REQUESTED AND MAIL ORIGINAL TO STATE
NSUMER LTH PROT TION, 535 WEST
76 DO NO DETACH G LOGICAL/WATER
IDE PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Richard Good. Well No. 2
Address RT 2 Box 128A Antioch, Il.
Driller William D Blake License No. 92-510
11. Permit No. 94710 Date July 8 1980
12. Water from drift (Formation) 13. County Lake
at depth 117 to 120 ft. Sec. 16.6d
14. Screen: Diam. 3 3/4 in. Twp. 46N
Length: 3 ft. Slot 12 Rge. 10E
Elev.

SHOW LOCATION IN SECTION PLAT
NW NE SW

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
4	T+C Galv. [illegible]	Surface	117

16. Size Hole below casing: 3 in.
17. Static level 75 ft. below casing top which is 1 ft. above ground level. Pumping level 84 ft. when pumping at 20 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top Soil	3	3
Yellow clay	12	15
Blue clay (Smooth)	18	33
Sandy clay (Blue)	25	58
Hard Pan	20	78
Grey clay (Silty)	37	115
Sand	5	120
(48) SAME AS (56)		

(CONTINUE ON SEPARATE SHEET IF NECESSARY) 16-46A-10E

SIGNED William D Blake DATE 9-2-82

NS TO DRILLERS

I REQUESTED AND MAIL ORIGINAL TO STATE
ONSUMER ALTH PR CTION, 535 WEST
52761. DO NOT DETACH GEOLOGICAL/WATER
IDE PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Wayne Blanchett Well No. 2
Address 22621 W. Rt 173 Antioch, Il.
Driller William D Blake License No. 92-510
11. Permit No. 101357 Date Sept. 16 81
12. Water from drift (Formation) 13. County Lake
at depth 134 to 138 ft. Sec. 16.5d
14. Screen: Diam. 3 3/4 in. Twp. 46N
Length: 4 ft. Slot 12 Rge. 10E
Elev.

SHOW LOCATION IN SECTION PLAT
Lot 4 Lagoon
NE NE SW

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
4	T+C Galv. [illegible]	Surface	134

16. Size Hole below casing: 3 in.
17. Static level 65 ft. below casing top which is 1 ft. above ground level. Pumping level 70 ft. when pumping at 15 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top Soil (49)	1	1
Yellow clay 180	16	17
Blue clay 65	12	29
Smooth clay 115	25	54
Sandy clay (Grey)	30	84
Hard Pan	49	133
Sand	5	138

(CONTINUE ON SEPARATE SHEET IF NECESSARY) 16-46A-10E

SIGNED William D Blake DATE 9-7-82

ION DRILLERS

ON REQUESTED AND MAIL ORIGINAL TO STATE
CONSUME EALTH PI ECTION, 535 WEST
62761. DO NOT DETACH GEOLOGICAL/WATER
VIDE PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Wayne Blanchett Well No. 2
Address 22621 W. Ave 173 Antioch, Il.
Driller William D Blake License No. 92-510
11. Permit No. 101357 Date Sept. 16 81
12. Water from drift (Formation) 13. County Lake
at depth 134 to 138 ft. Sec. 16.5d
14. Screen: Diam. 3 3/4 in. Twp. 46N
Length: 4 ft. Slot 12 Rge. 10E
Elev.

			x
	x		

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	T&C Galv. [illegible]	Surface	134

SHOW LOCATION IN SECTION PLAT
Lot 4 Lagoona
NE NE SW

16. Size Hole below casing: 3 in.
17. Static level 65 ft. below casing top which is 1 ft. above ground level. Pumping level 70 ft. when pumping at 15 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top Soil	1	1
Yellow clay (50)	16	17
Blue clay	12	29
Smooth clay	25	54
Sandy clay (Grey)	30	84
Hard Pan	49	133
Sand	5	138
SAME AS (58)		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED William D. Blake DATE 9-7-82
16-46N-10E

QUESTED AND MAIL ORIGINAL TO STATE
SUMER HEALTH PROTECTION, 535 WEST
1. DO NOT TACH GEOL ICAL/WATER
PROPER W. LOCATIO

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner RAY NOWAK Well No.
Address 173 and Madison, Antioch
Driller Lonny R. Hoover License No. 102-783
11. Permit No. 91570 Date Nov. 16, 1979
12. Water from Sand (Formation) 13. County Lake
at depth 123 to 129 ft. Sec. 16.5c
14. Screen: Diam. 4 in. Twp. 46N
Length: 3 ft. Slot #10 Rge. 12E 10E
Elev.

	x		

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	New Galv. Steel	0	126
	T&C 14.01 PPF		

SHOW LOCATION IN SECTION PLAT
300'E, 50'E, NW/C
NW/C SE NE
SW

16. Size Hole below casing: 4 in.
17. Static level 63 ft. below casing top which is 1 ft. above ground level. Pumping level 65 ft. when pumping at 15 gpm for 14 hours.

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM	
Clay	775	113	113	775
Sandy clay	63	10	123	123
Sand	712	6	129	652
(51)				
770				
61				

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [illegible] DATE 1/14/80

(60)

16 46N 10E

LOG OF WATER WELL

Property owner H Wilton Well No. 1

Drilled by Chas Madsen & Sons Year 1952

Formations passed through		Thickness	Depth of Bottom
Soil		0	8
yellow Clay		18	20
blue clay	790	88	108 108
Coarse Sand	50 / 740	4	112

(52)

No Envelope

Permit No. 1941 Permit issued 3/2/84

(Continued on back if necessary)

Finished in Coarse sand at 108 to 112 ft.

Cased with 2 inch Gal pip from 0 to 108 ft.

and — inch — from — to — ft.

Size hole below casing — inch. Static level from surf. 50 ft.

Tested capacity 10 gal. per min. Temperature — °F.

Water lowered to — ft. — in. in — hrs. — min.

Length of test 1 hrs. — min. Screen Midwest

Slot 60 Diam. 1" Length 4 ft. Bottom set at 112 ft.

(Show location in Section Plat)

Township name Antioch Elev. Sec. 15

Description of location Rd-173 Twp. 46N

NE SW NW Rge. 10E

SUMER HEALTH PROTECTION, 535 WEST
11. DO NOT DETACH GEOLOGICAL/WATER
PROPER' L LOCATI

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Thomas Homan Well No. 173 + Deep
Address 21075 North Ave. Antioch Calif.
Driller George E. Gaffke License No. 102-234
11. Permit No. 114634 Date 9/7/84
12. Water from Sand + Lt. Gravel 13. County Lake
at depth 155 to 160 ft. Sec. 16 le
14. Screen: Diam. 3 in. Twp. 46N
Length: 5 ft. Slot 10 Rge. 10E
Elev.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6	PVC	+1	160'

SHOW LOCATION IN SECTION PLAT
50'N 200W
SE/L, NE

16. Size Hole below casing: 5 in.
17. Static level 88 ft. below casing top which is +1 ft. above ground level. Pumping level ____ ft. when pumping at 15-20 gpm for ____ hours.

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM
Brown Clay		0	8
Blue Clay	(53)	20	28
Sand + Gravel		2	30
Blue Clay		44	74
Sand + Gravel		1	75
Blue Clay	792	65	140
Sand	88	1	141
Blue Clay	704	14	155
Sand + Lt. Gravel		5	160

79
15
63

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED George E. Gaffke DATE 3/27/85

792 6 46 10E

(13210—20M—3-55)

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Top soil		0	12
Gravel		12	16
Blue clay		16	80
Grey clay		80	95
Red sand		95	100
Grey sand and gravel, water bearing		100	111

Finished in sand and gravel.
Casing: 4" from 0 to 111'
Static level from surface: 45'
Tested capacity: 10 gallons per minute.
Water lowered: 5'

795
100
695

795
95
700

795
45
750

795
16
779

54

Little Silver Lake

COMPANY C. L. Wertz
FARM [illegible], N. H.
DATE DRILLED September 1939
AUTHORITY C. L. Wertz
ELEVATION
LOCATION

NO. 1
COUNTY NO. 44

LOG OF WATER WELL

Property owner Hans Hofman Well No. NE 1100

Drilled by C. L. Wertz Year 1966

Formations passed through	Thickness	Depth of Bottom
Permit # 1100		
0-15 Brown clay	15	15
15-80 Blue clay		
80-140 Hard clay		815
140-160 Fine sand dirty		160
160-180 Clean sand		055
180-185 Some fine gravel		
card (55)		

815
35
785

Received 9-16-66

(Continue on back if necessary)

Finished in fine gravel at 180 to 185 ft.

Cased with 4 inch galvanized from 0 to 181 ft.

and inch from to ft.

Size hole below casing [illegible] inch. Static level from surf. [illegible] ft.

Tested capacity [illegible] gal. per min. Temperature °F.

Water lowered [illegible] ft. in. in. [illegible] hrs. min.

Length of test [illegible] hrs. min. Screen [illegible]

Slot Diam [illegible] Length 36" Bottom set at 185 ft.

(Show location in Section Plat)

Township name Antioch Elev. 780 Sec. 16

Description of location 500'S and 600'W NE/[illegible] NE (Permit) Twp. 44

Rge. 10E

Signed C. L. Wertz County Lake

NSUMER HEALTH PROTECTION, 535 WEST
761. DO NOT DETACH GEOLOGICAL/WATER
E PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

1206 Hook Circle, Antioch Completed 7-26-77

10. Property owner Frances Graffe Well No. _____
Address 4647 S. St. Louis, Chicago, IL.
Driller Fred H. Matthesius License No. 102-88
11. Permit No. 63590 Date 7-18-77
12. Water from gravel (Formation) 13. County Lake
at depth 123 to 127 ft. Sec. 16
14. Screen: Diam. 5 in. Twp. 46N
Length: 4 ft. Slot 30 Rge. 10E
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	15# galv. T/C R&D		

SHOW LOCATION IN SECTION PLAT
SE SW SE
(permit)

16. Size Hole below casing: 5 in.
17. Static level 65 ft. below casing top which is 1 ft. above ground level. Pumping level 70 ft. when pumping at 20 gpm for _____ hours.

18. FORMATIONS PASSED THROUGH		~~THICKNESS~~ TOP	DEPTH OF BOTTOM	
clay	790	0	118	790 118
sand & gravel	65	118	127	672
	725			
	56			

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Fred H Matthesius DATE 8-23-77

COUNTY No. [illegible]

NSUMER HEALTH PROTECTION, 535 WEST
761. DO NOT DETACH GEOLOGICAL/WATER
E PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 8-11-77 Washington

10. Property owner THE RICHMOND CO. Well No. Lincoln
Address 2413 Sand Lake Rd., Lindenhurst, IL.
Driller HENRY BOYSEN CO. License No. 102-6
11. Permit No. 61040 Date 5/20/77
12. Water from Sand-Gravel (Formation) 13. County Lake
at depth 104 to 112 ft. Sec. 16
14. Screen: Diam. 5 in. Twp. 46N
Length: 3 ft. Slot 10 Rge. 10E
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	PVC	grade	110

SHOW LOCATION IN SECTION PLAT
75'SL 75'WL
NW NE SW
(permit)

16. Size Hole below casing: 5 in.
17. Static level 49 ft. below casing top which is 1 ft. above ground level. Pumping level _____ ft. when pumping at 10-15 gpm for _____ hours. Sub. pump set at 100'.

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM	
Brown Clay	57	7	7	
Blue Clay		71	78	
Blue Clay - Gravel	780	15	93	7
Blue Clay	50	11	104	1
Sand - Gravel	730	8	112	6

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [signature] DATE 12/29/77

LAKE COUNTY No. [illegible]

16-46N-10E

STATE OFFICE BUILDING, SPRINGFIELD,
AL / R SURVEYS SECTION. BE SURE TO

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 7-15-72

10. Property owner CHAS GERMACK Well No. _____
Address R.R. 1 ANTIOCH ILL
Driller ART WERTZ License No. 92-81
11. Permit No. NF 14354 Date 4-21-72
12. Water from GRAVEL (Formation) 13. County LAKE CL
at depth 180 to 185 ft.
Sec. 17
Twp. 46N
Rge. 10E
Elev. _____

14. Screen: Diam. _____ in.
Length: _____ ft. Slot _____

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
4	11# STEEL	—	185

SHOW LOCATION IN SECTION PLAT
SE NE NW
(permit)

16. Size Hole below casing: _____ in.
17. Static level 40 ft. below casing top which is 1 ft. above ground level. Pumping level 50 ft. when pumping at 10 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM	
BLUE CLAY	160	160	795
SAND + CLAY	15	175	175 ?
SAND + GRAVEL	10	185	620

(70) 775
40
735

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Arthur Wertz DATE 9-25-72

COUNTY No. 3665

LAKE 17-46N-10E

(182.. 10M—3-55)

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Clay		0	90
Clay and sand	785	90	140
Gravel	140	140	142
	635		TD

Finished in gravel.
Casing: 4" galv. from 0 to 142'
Static level from surface: 50'
Tested capacity: 10 gallons per minute.
Water lowered: 5'

790

785
50
735

780
50
735

(71)

Copied from records in office of C. L. Wertz

COMPANY C. L. Wertz
FARM LaPlant NO. 1
DATE DRILLED September 1954 COUNTY NO. 233
AUTHORITY C. L. Wertz
ELEVATION
LOCATION SW SE NE
COUN LAKE

(13210—10M—3-56)

Page 1 **ILLINOIS GEOLOGICAL SURVEY, URBANA**

3

Strata	Thickness	Top	Bottom
Clay	775	0	100
Sand	100	100	104
Very coarse gravel	675	104	106
			TD

Finished in very coarse gravel.
Casing: 6" galv. from 0 to 103'
Static level from surface: 30'
Tested capacity: 20 gallons per minute.
Water lowered: 5'

775
30
745

72

Copied from records in office of C. L. Wertz

COMPANY C. L. Wertz
FARM Hunter, Elmer
DATE DRILLED July 1949
AUTHORITY C. L. Wertz
ELEVATION
TION NW NE

NO. 1
COUNTY NO. 153

(13210—10M—3-56)

Page 1 **ILLINOIS GEOLOGICAL SURVEY, URBANA**

3

Strata	Thickness	Top	Bottom
Brown clay	782	0	15
Blue clay	120	15	120
Fine sand to gravel	662	120	130
			TD

Finished in fine sand to gravel.
Casing: 4" from 0 to 130'
Static level from surface: 40'
Tested capacity: 10 gallons per minute.
Water lowered: 5'

777
-40
737

782
40
740

Antioch, Illinois

COMPANY C. L. Wertz
FARM Grimm, Henry
DATE DRILLED March 1945
AUTHORITY C. L. Wertz
ELEVATION
LOCATION NW NW SE

NO. 1
COUNTY NO. 85

(12210—20M—3-55)

3

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Brown clay		0	18
Clay		18	90
Sand	780	90	96
Clay	155	96	155
Sand to gravel.	625	155	161
			TD

9

Finished in sand to gravel.
Casing: 4" from 0 to 158'
Size hole below casing: 4"
Static level from surface: 70'
Tested capacity: 10 gallons per minute.
Water lowered: 5'

74

780
70
710

Copied from records in office of C. L. Wertz

COMPANY C. L. Wertz
FARM Ornaman
DATE DRILLED May 1950
AUTHORITY C. L. Wertz
ELEVATION
LOCATION SW NE SW
LAKE

NO. 1
COUNTY NO. 152

17-46N-10E

(12210—20M—3-55)

3

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Top soil		0	20
Clay	100	20	100
Sand		100	144
Gravel		144	147
			T.

Finished in gravel.
Casing: 4" galv. from 0 to 147'
Static level from surface: 70'
Tested capacity: 10 gallons per minute.
Water lowered: 5'

75

Falls in middle of Lake

Copied from records in office of C. L. Wertz

COMPANY C. L. Wertz
FARM Dwiggley, T.
DATE DRILLED June 1954
AUTHORITY C. L. Wertz
ELEVATION
LOCATION NE SW NW
COUNTY LAKE

NO. 1
COUNTY NO. 232

17-46N-10E

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

Completed 6-8-67

10. Dept. Mines and Minerals permit No. NF 3244 Year 1967
11. Property owner JAMES WALSH Well No. 1
Address ROUTE 2 LAKEVILLE
Driller EH GLENNYSON INC License No. 92-109
12. Water from DRIFT Formation 13. County LAKE
at depth 155 to 157 ft.
14. Screen: Diam. SCREEN in.
Length: ____ ft. Slot ____
Sec. 12
Twp. 46N
Rng. 11E
Elev. ____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	STEEL #160	0	157

SHOW LOCATION IN SECTION PLAT
NW SE NE (Permit)

16. Size Hole below casing: ____ in.
17. Static level 64 ft. below casing top which is 8" ft. above ground level. Pumping level 500 ft. when pumping at 15 gpm for 1 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
TOP SOIL (76)	4	0-4
YELLOW CLAY	19	4-23
BLUE CLAY 185	82	23-105
FINE SAND 65	49	105-154
SAND & GRAVEL 70	3	154-157
DRILLED WATER BEARING	0	157-157
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED [signature] DATE 6-20-67

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

Completed 10-11-67

10. Dept. Mines and Minerals permit No. NF 2810 Year 1967
11. Property owner V. PITZER Well No. 1
Address RT 2 ANTIOCH
Driller EH GLENNYSON INC License No. 92-109
12. Water from SAND Formation 13. County LAKE
at depth 169 to 176 ft.
14. Screen: Diam. 4 in.
Length: 7 ft. Slot 15
Sec. 17
Twp. 46N
Rng. 10E
Elev. ____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	GALV STEEL #160	0	173
4	JOHNSON SCREEN	173	176

SHOW LOCATION IN SECTION PLAT
NW SW NE (Permit)

16. Size Hole below casing: 4 in.
17. Static level 53 ft. below casing top which is 8" ft. above ground level. Pumping level 60 ft. when pumping at 32 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
TOP SOIL (77)	4	0-4
YELLOW CLAY	15	4-19
BLUE CLAY 139	120	19-139
FINE SAND	25	139-164
GRAVEL + CLAY	5	164-169
SAND + GRAVEL	7	169-176
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED [signature] DATE 10-17-67

COUNTY No. 2423

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Blue clay		0	124
Fine sand (very nice gravel at 150')		124	150 TD

Finished in very nice coarse gravel.
Casing: 4" from 0 to 150'.
Static level from surface: 75'
Tested capacity: 10 gallons per minute.
Water lowered: 5'

Northeast of Antioch, Illinois

COMPANY	C. L. Wertz		
FARM	Hyke, John	NO.	1
DATE DRILLED	October 1939	COUNTY NO.	40
AUTHORITY	C. L. Wertz		
ELEVATION	[illegible]		
LOCATION	NE NE SW		
COUNTY	LAKE		

9-46N-10E

EQUESTED AND MAIL ORIGINAL TO STATE
[illegible] R H [illegible] TH PROTE[illegible] ON, 535 WEST
61. DO NOT DETACH GEOLOGICAL/WATER
E PROPER WELL LOCATION.

(27)

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Fred C Hartman Well No. 1
Address R.R. Silver Lake Park - Antioch, IV
Driller C. L. Wertz License No. 57
11. Permit No. 104065 Date 9-20-82
12. Water from Drift (Formation) 13. County Lake
at depth 171 to 174 ft. Sec. 9 Sa
14. Screen: Diam. 3 in. Twp. 46N
Length: 4 ft. Slot 15 Rge. 10E
Elev. 790

SHOW LOCATION IN SECTION PLAT
250'N 250'W SE/C S

15. Casing and Liner Pipe

Diam (In.)	Kind and Weight	From (Ft.)	To (Ft.)
4"	galv steel	0	171
	11 lb per ft.		

SAME AS (34)

16. Size Hole below casing: Screened
17. Static level 50 ft. below casing top which is 1 ft. above ground level. Pumping level 53 ft. when pumping at 15 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Brown clay — 0-08		
Gravel streak 5-10		
Blue clay — 10-95		
Muck clay = 95-105		
Grey clay 105-160		
Dirty fine sand 160-165		
Clean gravel 165-174		

(CONTINUE ON SEPARATE SHEET IF NECESSARY) 4-46N 10E

SIGNED C. L. Wertz DATE 9-20-82

793

(132[illegible]—3-66)

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Blue clay		0	12[illegible]
Fine sand (very nice gravel at 1[illegible]')		12[illegible]	1[illegible]

Finished in very nice coarse gravel.
Casing: [illegible]" from 0 to 1[illegible]'.
Static level from surface: 75'
Tested capacity: 10 gallons per minute.
Water lowered: 5'

820
75
745

(28)

Northeast of Antioch, Illinois

COMPANY C. L. Wertz
FARM Nyke, John NO. 1
DATE DRILLED October 1 39 COUNTY NO. 40
AUTHORITY C. L. Wertz
ELEVATION
LOCATION [illegible]
COUNTY [illegible]

HSUMER HEALTH PROTECTION, 535 WEST
761. [illegible] DT DETACH GEOLOGICAL/WATER
IE PRO[illegible] [illegible]LL LOCAT[illegible].

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Don Collins Well No. _____
Address Silver Lake Ave. Antioch, Il
Driller Charles C Madsen License No. [illegible]
11. Permit No. 110624 Date 11-30-[illegible]
12. Water from SAND (Formation) 13. County LAKE
at depth 142 to 153 ft.
14. Screen: Diam. 3 in.
Length: 5 ft. Slot 010
Sec. 9.5c
Twp. 46N
Rge. 10E
Elev. _____

SHOW LOCATION IN SECTION PLAT
SE NE SW

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4"	Gal 11 PE	0	147

16. Size Hole below casing: 3 in.
17. Static level 115 ft. below casing top which is 1 ft. above ground level. Pumping level 126 ft. when pumping at 10 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM
Yellow Clay		21	21
B Clay	795	119	140
Sand	115	120	152
	680		
(29)			

795
140
655

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Charles E. Madsen DATE 9/24/84

Charles E Madsen 9 · 46N10E

761. DO NOT DETACH GEOLOGICAL/WATER
L PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Marlin Corran Well No. _____
Address 2[illegible] Lake St. Evanston, Ill 60201
Driller C. L. Wertz License No. 27
11. Permit No. 112201 Date June 17-84
12. Water from Drift (Formation) 13. County Lake
at depth 102 to 162 ft.
14. Screen: Diam. 3 in.
Length: 48 ft. Slot 12
Sec. 9.5c
Twp. 46N
Rge. 10E
Elev. _____

SHOW LOCATION IN SECTION PLAT
650'S & 400'W
SE/C SW ?

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4"	Galv - 11 lb	0	
	stock		102

16. Size Hole below casing: 3 in. Screened
17. Static level 50 ft. below casing top which is 1 ft. above ground level. Pumping level 60 ft. when pumping at 10 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM
Brown clay	0 - 19		
Blue clay Firm	19 - 36		
" " mucky	36 - 68		(30)
Grey clay Firm	68 -		
some grit	130		
Sand stuck	130 - 135		
Clay & sand	135 - 155		
Clean sand & gravel	155 - 165		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED C. L. Wertz DATE June 17 84

9 - 46N10E

(28)

NSUMER HEALTH PROTECTION, 535 WEST
161, DO NOT DETACH GEOLOGICAL/WATER
E PROPERTY LOCATION

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 9/11/76

10. Property owner [illegible] Well No. _____
Address [illegible]
Driller [illegible] License No. [illegible]
11. Permit No. [illegible] Date [illegible]
12. Water from [illegible] (Formation) 13. County [illegible]
at depth [illegible] to [illegible] ft. Sec. [illegible]
14. Screen: Diam. [illegible] in. Twp. [illegible]
Length: [illegible] ft. Slot [illegible] Rge. [illegible]
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
[illegible]	[illegible]	0	[illegible]
	[illegible]		

SHOW LOCATION IN SECTION PLAT
1150'NL 375'EL
SW (permit)

16. Size Hole below casing: [illegible] in.
17. Static level [illegible] ft. below casing top which is [illegible] ft. above ground level. Pumping level [illegible] ft. when pumping at [illegible] gpm for _____ hours. Sub. pump set at 105'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
(31)		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [illegible] DATE 9/24/76

COUNTY No. [illegible]

NSUMER HEALTH PROTECTION, 535 WEST
161, DO NOT DETACH GEOLOGICAL/WATER
E PROPERTY LOCATION

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 9/15/76

10. Property owner [illegible] Well No. _____
Address [illegible]
Driller [illegible] License No. [illegible]
11. Permit No. [illegible] Date [illegible]
12. Water from [illegible] (Formation) 13. County [illegible]
at depth [illegible] to [illegible] ft. Sec. [illegible]
14. Screen: Diam. 4 in. Twp. [illegible]
Length: [illegible] ft. Slot 15 Rge. [illegible]
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
[illegible]	[illegible]	0	[illegible]
	[illegible]		

SHOW LOCATION IN SECTION PLAT
500'NL 325'EL
SW (permit)

16. Size Hole below casing: [illegible] in.
17. Static level [illegible] ft. below casing top which is [illegible] ft. above ground level. Pumping level [illegible] ft. when pumping at [illegible] gpm for _____ hours. Sub. pump set at 115'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
[illegible]	[illegible]	[illegible] 796
[illegible]	[illegible]	[illegible] 130
[illegible]	[illegible]	[illegible] 660
(32)		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [illegible] DATE 9/24/76

COUNTY No. [illegible]

(13210—20M—3-55)

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bottom
Brown clay		0	15
Blue clay		15	125
Sand to very nice gravel		125	171

805
125
680

Finished in sand to very nice gravel.
Casing: [illegible] from 0 to 171'
Static level from surface: 65'
Tested capacity: 10 gallons per minute.
Water lowered: 5'

810
65
745

33

COMPANY C. L. Hertz
FARM [illegible] Farm
DATE DRILLED May 1943
AUTHORITY C. L. Hertz
ELEVATION [illegible]

NO. 1
COUNTY NO. 84

NW

John C. Moore Corporation, Rochester, N. Y. Binder and Holes in Leaves Patented. FORM 403809

TOWN Antioch TOWNSHIP Antioch MAP NO. 3
COMPANY Henry Boysen, Jr. NO. R. 10E
FARM Nixon, M. C. NO. T. 46 N SEC 16
AUTHORITY Henry Boysen, Jr.
ELEVATION
COLLECTOR
CONFIDENTIAL DATE DRILLED Dec. 1939

SE cor SW SE NW

No.	Strata	Thickness Feet	Thickness In.	Depth Feet	Depth In.
	Clay, red	20		20	
	Clay, blue	90		110	
	Sand and gravel	45		155	

4-1/2" casing to 155'
Water level 62' from surface
Capacity tested to 10 g.p.m.

795
62
733

34

COUNTY Lake INDEX NO. 0316
DRILL RECORD

LOG OF WATER WELL

Property owner R. Laursen Well No. 1

Drilled by C. L. Wertz Year 1944

Formations passed through

	Thickness	Depth
Top soil & Brown clay	18	18
Grey clay & stones	467	85
Dry lime gravel	5	190
Limestone		215

(35)

Finished in Limestone at 190 to 215 ft.

Cased with 4 inch Water well pipe from 0 to 190 ft.

and — inch — from — to — ft.

Size hole below casing 4 inch. Static level from surf 30 ft.

Tested capacity 6 gal. per min. Temperature

Water lowered to 50 ft. in. in 4 hrs. min.

Length of test 8 hrs. min. Screen

Slot — Diam. — Length Bottom set at ft.

Township name Newport Elev. 122 Sec. 16

Description of location 1000 St. N. of Tw. 76 N

Rt. 173 Rge. 10 E

C. Wertz County Lake

Page 1

ILLINOIS GEOLOGICAL SURVEY, URBANA

Strata	Thickness	Top	Bot
Brown clay	768	0	1
Blue clay	85	15	5
Clean gravel	683	85	8

Finished in clean gravel.
Casing: 3" from 0 to 87'
Static level from surface: 30
Tested capacity: 20 gallons per minute.
Water lowered: 5'

768
30
738

(36)

Little Silver Lake

COMPANY C. L. Wertz
FARM Hermanck, Ann
DATE DRILLED November 1941
AUTHORITY C. L. Wertz
ELEVATION
LOCATION

NO. 1
COUNTY NO. 45

.701. DO NOT DETACH GEOLOGICAL WATER
DE PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 7-26-74

#2002

10. Property owner Bunge Milling Well No. _____
Address PO Box 161, Lake Tahoe
Driller Owner License No. 30
11. Permit No. 31651 Date 7/30/74
12. Water from Sand (Formation) 13. County Ector
at depth 139 to 145 ft. Sec. 16 Twp. 41N Rge. 16E Elev. _____
14. Screen: Diam. 4 in. Length: 3 ft. Slot 12

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Galv. T&C	0	142
	10.89 #/ft		

SHOW LOCATION IN SECTION PLAT
350'SL 350'EL of SE (permit)

16. Size Hole below casing: 4 in.
17. Static level 70 ft. below casing top which is 1 ft. above ground level. Pumping level 90 ft. when pumping at 6 gpm for _____ hours. Submersible pump set at 126'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Yellow Clay	20	20
Sand Gray Clay 700	111	131
Yellow Sand 6" 70	8	139
Red Sand 1A 710	6	145
185 (37)		

779 139 640

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED L. E. Stewart DATE 8/5/74

COUNTY No. .....

.701. DO NOT DETACH GEOLOGICAL WATER
DE PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 9-13-74

10. Property owner Howard Tuell Well No. _____
Address RT 1 Box 114, Lubbock
Driller Owner License No. 30
11. Permit No. 33250 Date 9/23/74
12. Water from Sand (Formation) 13. County Ector
at depth 127 to 130 ft. Sec. 16 Twp. 41N Rge. 16E Elev. _____
14. Screen: Diam. 12 in. Length: 3 ft. Slot 12

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
4	Galv. T&C	0	127
	10.89 #/ft		

SHOW LOCATION IN SECTION PLAT
350'SL 1000 WL of NW (permit)

16. Size Hole below casing: 4 in.
17. Static level 60 ft. below casing top which is 1 ft. above ground level. Pumping level 60 ft. when pumping at 15 gpm for _____ hours. Submersible pump set at 60'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Glacial drift 795	127	127
Sand 60	3	130
735		
(38)		
111		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED L. E. Stewart DATE 9/30/74

GEOLOGICAL WATER SURVEYS WATER WELL

10. Dept. Mines and Minerals permit No. [illegible]
11. Property owner [illegible]
Address [illegible]
12. Water from [illegible] 13. Co[illegible]
at depth [illegible] to [illegible] ft.
14. Screen: Diam. [illegible] in.
Length [illegible] ft. Slot [illegible]
Sec. [illegible]
Twp. [illegible]
Rge. [illegible]
Elev. [illegible]

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
[illegible]	[illegible]	[illegible]	[illegible]

16. [illegible] in.
17. [illegible] casing to [illegible]
[illegible] ft. when pumping at [illegible]
gpm for [illegible] hours.

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM
[illegible]		[illegible]	[illegible]

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [illegible] DATE [illegible]

[illegible]

MAKE

STATE OFFICE BUILDING, SPRINGFIELD, ILL./WATER SURVEYS SECTION. BE SURE TO

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 2-73

10. Property owner Murphy Farms Well No. _____
Address Rt. 173 Antioch
Driller Hoover License No. 30
11. Permit No. NE 17835 Date 2/9/73
12. Water from sand (Formation) 13. County Lake
at depth 154 to 164 ft.
14. Screen: Diam. 4 in.
Length: 3 1/2 ft. Slot #8
Sec. 16
Twp. 46N
Rge. 10E
Elev. _____

15. Casing and Liner Pipe

Diam. (In.)	Kind and Weight	From (Ft.)	To (Ft.)
4	galv. T.C. 10.89 PPF	0	161

SHOW LOCATION IN SECTION PLAT
300' SL 850' EL of NE (permit

16. Size Hole below casing: 4 in.
17. Static level 70 ft. below casing top which is 1 ft. above ground level. Pumping level 78 ft. when pumping at 10 gpm for _____ hours.

18. FORMATIONS PASSED THROUGH		THICKNESS	DEPTH OF BOTTOM
yellow clay		19	19
blue clay		88	107
sandy clay	775	11	118
gravel & clay	70	36	154
sand	725	10	164
	571		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [illegible] DATE 2/24/73

COUNTY No. 3623

19

I REQUESTED AND MAIL ORIGINAL TO STATE
HEAL ENVIRONMENTAL HEALTH, 535 WEST
2701. DO NOT DETACH GEOLOGICAL/WATER
DE PROPE LOCA

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 9/2/75

10. Property owner Clarence Nagle Well No. 1
Address RR Mattoon, Ill
Driller C. L. Hartz License No. 57
11. Permit No. 37865 Date Sept. 8-1975
12. Water from Dirt (Formation) 13. County Lake
at depth 82 to 132 ft.
14. Screen: Diam. 2 in.
Length: 12" ft. Slot 15
Sec. 16
Twp. 46N
Rge. 10E
Elev. 820

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	1726 galv	0	132

SHOW LOCATION IN SECTION PLAT
200'NL, 250'EL
NW SE
(Permit)

16. Size Hole below casing: — in. Screened
17. Static level 22 ft. below casing top which is 1 ft. above ground level. Pumping level 60 ft. when pumping at 22 gpm for 3 hours. Sub. pump set at 90'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Brown clay 0 - 18	18	
Blue gray " 18 - 95	95	
Dark gray clay 95 - 116	21 790	790
Dirty sand 116 - 128	12 128	50
Clean sand & fine gravel 128 - 132	4 660	740
gravel		
(40)		

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED C. L. Hartz DATE Sept 5-75

COUNTY No. 24052

(41) LAKE 16-46N-10E

EQUESTED AND MAIL ORIGINAL TO STATE
SUMER HEALTH PROTECTION, 535 WEST
1. DO NOT DETACH GEOLOGICAL/WATER
PROPER LOCATIO

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 4/27/76

10. Property owner RAY Schmidt Well No.
Address Rt 2 Box 136A Antioch
Driller Martin Hudson License No. 102-7
11. Permit No. 46233 Date April 14, 1976
12. Water from Dirt (Formation) 13. County Lake
at depth 100 to 110 ft.
14. Screen: Diam. 4 in.
Length: 5 ft. Slot
Sec. 21/16
Twp. 46N
Rge. 10E
Elev.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5"	GALV.	0	105

SHOW LOCATION IN SECTION PLAT
Lot #11, Blk. 2
Lagoona Subd.
SW (permit)

16. Size Hole below casing: in.
17. Static level 40 ft. below casing top which is 2 ft. above ground level. Pumping level 70 ft. when pumping at 5 gpm for 1 hours. Sub. pump set at 80'

18. FORMATIONS PASSED THROUGH	THICKNESS TOP	DEPTH OF BOTTOM
Brown CLAY	0	3
Grey CLAY	3	35
Red CLAY	35	70
SAND & GRAVEL	90	110
(41)		

90

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED James Hutchings DATE 4/29/76

COUNTY No. 73264

LAKE 16-46N-10E

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH
See Instructions on Reverse Side

JAN 7

1. County Kenosha { Town ~~Village~~ ~~City~~ Salem

2. Location NE 1/4 of SE 1/4 Sec. 35 - T-1 - R-20

3. Owner or ~~Agent~~ Richard Cull

4. Address Cross Lake. Antioch. Ill

5. From well to nearest: Building 5 ft; sewer 25 ft; drain — ft; septic tank 55 ft; dry well or filter bed 60 ft; abandoned well — ft.

6. Well is intended to supply water for: Home

7. DRILLHOLE OR EXCAVATION:

Dia. (in.)	From (ft.)	To (ft.)
4	0	60
2	60	157

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
2	Galv. Steel Pipe	0	157
1	Screen	157	161

9. GROUT:

Kind	From (ft.)	To (ft.)
Clay Slurry	0	60

10. FORMATIONS:

Kind	Thickness (ft.)	Total Depth (ft.)
Top Sand	2	2
Yellow Clay	9	1
Blue Clay	81	92
Sandy Clay	61	153
Sand & gravel	8	161

11. MISCELLANEOUS DATA:

Yield test: 4 Hrs. at 10 GPM.

Depth from surface to water: 80 ft.

Water-level when pumping: 95 ft.

Water sample sent to laboratory at Kenosha on 4-20 1946

Construction of the well was completed on 4-20 1946

The well is terminated 22 inch (above) (~~below~~) the permanent grade.

Was the well disinfected upon completion? Yes ✓ No

Was the well sealed watertight upon completion? Yes ✓ No

Signature Ernest H. Glenn
Registered Well Driller

996 Spafford St
Complete Mail Address
Antioch. Ill

(Well Constructor's Copy)

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Kenosha — Town ☒ Village ☐ City ☐ Bristol (Check one and give name)

2. Location S.½ of the N.W Sec 31 R 21 E T 1 N.
Name of street and number of premise or Section, Town and Range number

3. Owner ☒ or Agent ☐ Alfonso Larcia
Name of individual, partnership or firm

4. Mail Address Antioch, Illinois
Complete address required

RECEIVED MAY 9 1955 ENVIRONMENTAL SANITATION

5. From well to nearest: Building 25 ft; sewer 60 ft; drain 60 ft; septic tank 60 ft; dry well or filter bed 65 ft; abandoned well ____ ft.

6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
8	0	20			
4	20	159			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
4	galv. steel pipe	0	159

9. GROUT:

Kind	From (ft.)	To (ft.)
clay slurry	0	20

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
top soil	0	3
red clay	3	24
blue clay	24	156
gravel (water bearing)	156	159

790 156 63

Construction of the well was completed on: April 1955

The well is terminated 24 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes X No ____

Was the well sealed watertight upon completion? Yes X No ____

11. MISCELLANEOUS DATA:

Yield test: 4 Hrs. at 11 GPM.

Depth from surface to water-level: 50 ft.

Water-level when pumping: 65 ft.

Water sample was sent to the state laboratory at: Madison (City) on 5-2 1955

Signature Ernest H. Glenn (Registered Well Driller) 996 Spafford St. Antioch, Illinois (Complete Mail Address)

Please do not write in space below

Rec'd MAY 3 1955 No. 10815

Ans'd

Interpretation SAFE

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli	0/5				

Examiner

WELL CONSTRUCTOR'S REPORT — WISCONSIN STATE BOARD OF HEALTH

1. COUNTY: Kenosha

CHECK ONE: ☒ Town ☐ Village ☐ City — NAME: Bristol, Wis

2. LOCATION (Number and Street or ¼ section, section, township and range. Also give subdivision name, lot and block numbers when available.): NE¼ of SE¼ of Sect. 32, Range 21E, T1N,

3. OWNER AT TIME OF DRILLING: Mr. Arthur Giesecke

4. OWNER'S COMPLETE MAIL ADDRESS: Rt # 1, Bristol Wis.

5. Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER C. I.	SANITARY SEWER TILE	FLOOR DRAIN C. I.	FLOOR DRAIN TILE	FOUNDATION DRAIN SEWER CONNECTED	FOUNDATION DRAIN INDEPENDENT	WASTE WATER ENGINEERING
10			20'		—	10'	

CLEAR WATER DRAIN C. I.	CLEAR WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
		80'		90'	90'	—	—	—	Mud Lake ¼ mile

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.): "Mud Lake & sink Holes"

6. Well is intended to supply water for: Private Home

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20	6	20	93

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6 5/8	Steel 19.45	Surface	93

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Pud, clay	Surface	20

10. FORMATIONS

Kind	From (ft.)	To
top Soil	Surface	
Red clay	1	1
Blue clay	16	
Sand	18	8
Hard pan	88	9
Gravel	90	
	90	

Well construction completed on: July 24

Well is terminated 9 inches ☒ above ☐ below final g

Well disinfected upon completion ☒ Yes

Well sealed watertight upon completion ☒ Yes

11. MISCELLANEOUS DATA

Yield test: 28 Hrs. at 15 GPM

Depth from surface to normal water level 40 ft.

Depth to water level when pumping 56 ft.

Water sample sent to Kenosha Water Dept. laboratory on: July 26

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to r wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blastii surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE: Lawrence L Hohlke — Registered Well Driller

COMPLETE MAIL ADDRESS: Box 35, Bristol

Please do not write in space below

COLIFORM TEST RESULT	GAS — 24 HRS.	GAS — 48 HRS.	CONFIRMED	REMARKS

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Kenosha — Town ☒ / Village ☐ / City ☐ Bristol (Check one and give name)

2. Location At Lake Shengerla Sect 3I Range 2I East. T-1 (Name of street and number of premise or Section, Town and Range numbers)

3. Owner ☒ or Agent ☐ Mr Griffeth (Name of individual, partnership or firm)

4. Mail Address Bristol Wis. Chicago Address not known. (Complete address required)

5. From well to nearest: Building 10 ft; sewer none ft; drain 30 ft; septic tank 70 ft; dry well or filter bed 82 ft; abandoned well ____ ft. none

6. Well is intended to supply water for: Summer Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
4	0	I64			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
4	Gal Steel	0	I64

9. GROUT:

Kind	From (ft.)	To (ft.)
Clay	0	I0

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Clay	0	I5I
sand	I5I	I62
Gravel	I62	I64

11. MISCELLANEOUS DATA:

Yield test: I0 Hrs. at I0 GPM.

Depth from surface to water-level: 54 ft.

Water-level when pumping: 59 ft.

Water sample was sent to the state laboratory at: Kenosha (City) on June 29 1950

Construction of the well was completed on: June 28 1950

The well is terminated 6 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes X No ____

Was the well sealed watertight upon completion? Yes X No ____

Signature Frank H. Gohlke (Registered Well Driller) Bristol Wis. (Complete Mail Address)

Please do not write in space below

Rec'd 6-30-50 No. 10020

Ans'd 7-2-50

Interpretation MH

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.	0	0	0	0	0
48 hrs.	0	0	0	0	0
Confirm					
B. Coli					

Examiner J.A.M.

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPOR
Form 3300-15 Rev. 2-

JUL 7 1980

1. COUNTY: Kenosha
CHECK (✓) ONE: ☒ Town ☐ Village ☐ City
Name: Bristol

2. LOCATION: ¼ Section or Gov't. Lot: N.W. ½ | Section: 31 | Township: 1N. | Range: 21E.
OR – Grid or Street No. | Street or Road Name
AND – If available subdivision name, lot & block No.

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK: Ms. Joan Underhill
ADDRESS: Bristol, Wisconsin
POST OFFICE
ZIP CODE: 53104

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain C.I.	Sanitary Bldg. Drain Other	Sanitary Bldg. Sewer C.I.	Sanitary Bldg. Sewer Other	Floor Drain Connected To: C.I. Sewer	Floor Drain Connected To: Other Sewer	Storm Bldg. Drain C.I.	Storm Bldg. Drain Other	Storm B C.I.
12									

Street Sewer San.	Street Sewer Storm	Other Sewers C.I.	Other Sewers Other	Foundation Drain Connected to: Sewer / Clearwater Dr.	Sewage Sump / Clearwater Sump	Sewage Sump C.I.	Sewage Sump Other	Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit: Seepage Pit / Seepage Bed / Seepage Trench	Manure Ho Retention Pnuematic
										40		

Privy	Pet Waste Pit	Pit: Nonconforming Existing: Well / Pump / Tank	Subsurface Pumproom Nonconforming Existing	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit	Ear Man.

Temporary Manure Stack or Platform	Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin / Concrete Floor Only / Concrete Floor and Partial Concrete Walls	Other (Describe)

5. Well is intended to supply water for: private home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20	5	20	142

CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification Mfg. & Method of Assembly	From (ft.)	To (ft.)
5 I.D.	new T&C	Surface	142
	Black steel		
	15#/ft.		
	ASTM A 53		
	Schmoto steel		

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
puddle clay	Surface	20

9. FORMATIONS

Kind	From (ft.)	T
brown clay	Surface	
blue clay	14	
sand	132	
sand and gravel	134	

78°
132
648

10. TYPE OF DRILLING MACHINE USED
☒ Cable Tool ☐ Rotary-air w/drilling mud ☐ Rotary-w/drilling mud ☐ Rotary-hammer w/drilling mud & air ☐ Rotary-hammer & air ☐ Reverse Rotary ☐ Jetting wi ☐ A ☐ W

Well construction completed on July 1, 1

11. MISCELLANEOUS DATA
Yield Test: 3 Hrs. at 30 GPM
Depth from surface to normal water level 85 Ft.
Depth of water level when pumping 85 Ft. Stabilized ☒ Yes ☐ No

Well is terminated 48 inches ☒ above ☐ below final grade
Well disinfected upon completion ☒ Yes ☐ No
Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Kenosha Water Dept. laboratory on to be sent -- we i

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, metho finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: William L. Stohlke Registered Well Driller

Business Name and Complete Mailing Address: Rt. 1 Box 117 Bristol, Wisconsin - 5

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH
See Instructions on Reverse Side

1. County Kenosha — Town ☒ Village ☐ City ☐ Salem (Check one and give name)

2. Location Shangri La Lodge. Sec. 36 T. 1. R 20. E on twn. Rd. (Name of street and number of premise or Section, Town and Range numbers)

3. Owner ☒ or Agent ☐ E. Baffetti (Name of individual, partnership or firm)

4. Mail Address 733 W. Aldine Ave Chicago (Complete address required)

RECEIVED APR 24 1956 ENVIRONMENTAL SANITATION

5. From well to nearest: Building 20 ft; sewer ____ ft; drain ____ ft; septic tank 65 ft; dry well or filter bed 80 ft; abandoned well ____ ft.

6. Well is intended to supply water for: Summer home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
4	0	22			
2	22	146			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
2	galv. steel	0	146

9. GROUT:

Kind	From (ft.)	To (ft.)
mud	0	22

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
yellow clay	0	16
Blue	16	38
sandy clay	38	105
sand	105	139
water gravel	139	146

11. MISCELLANEOUS DATA:

Yield test: 4½ Hrs. at 5 GPM.

Depth from surface to water-level: 80 ft.

Water-level when pumping: 83 ft.

Water sample was sent to the state laboratory at: Madison (City) on Apr 17 1956

Construction of the well was completed on: Apr. 10 1956

The well is terminated 10 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes X No ____

Was the well sealed watertight upon completion? Yes X No ____

Signature Robert T. Wilton (Registered Well Driller) Trevor Wis (Complete Mail Address)

Please do not write in space below

Rec'd APR 18 1956 No. 10390

Ans'd ____

Interpretation SAFE

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.	0				
Confirm					
B. Coli	0				
	5				

Examiner ____

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH
See Instructions on Reverse Side

1. County Kenosha Town ☒ Village ☐ City ☐ Bristol
Check one and give name

2. Location Sec 29, R 21, T. 1, E. T. V. 3/4 [illegible]
Name of street and number of premise or Section, Town and Range numbers

RECEIVED
ENVIRONMENTAL SANITATION

3. Owner ☐ or Agent ☐ E Wise
Name of individual, partnership or firm

4. Mail Address Bristol Wis
Complete address required

5. From well to nearest: Building 12 ft; sewer ____ ft; drain ____ ft; septic tank ____ ft; dry well or filter bed ____ ft; abandoned well ____ ft. privy 70 ft

6. Well is intended to supply water for: home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	0	35			
4	35	236			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
4	galv steel	0	236

9. GROUT:

Kind	From (ft.)	To (ft.)
mud	0	35

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
yellow clay	0	16
Blue "	16	18
sandy clay	182	[illegible]5
sand	205	22[illegible]
water gravel	228	236

Construction of the well was completed on: Dec 22 19__

The well is terminated 10 inches ☒ above, below ☐ the permanent ground surface

Was the well disinfected upon completion? Yes X No ____

Was the well sealed watertight upon completion? Yes X No ____

11. MISCELLANEOUS DATA:

Yield test: 6 Hrs. at 8 GPM.

Depth from surface to water-level: 51 ft.

Water-level when pumping: 53 ft.

Water sample was sent to the state laboratory at: Madison (City) on Jan 13 1954

Signature Robert H. Wilton (Registered Well Driller) Trevor Wis (Complete Mail Address)

Please do not write in space below

Rec'd: JAN 7 1954 No. [illegible]

Ans'd ____

Interpretation SAFE

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.	0				
48 hrs.	0				
Confirm					
B. Coli	0/5				

Examiner ____

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15 Rev. 2-79

APR 4 1984

1. COUNTY: KENOSHA
CHECK (✓) ONE: ☑ Town ☐ Village ☐ City
Name: SALEM

2. LOCATION
¼ Section or Gov't. Lot:
Section: 36 Township or Range: N 20E
OR – Grid or Street No.: 120 ST
Street or Road Name:
AND – If available subdivision name, lot & block No.: VUTZ LAKE

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓)
NICK KARNIENIECKI
ADDRESS: 22906 120 ST
POST OFFICE: TREVOR
ZIP CODE: 53179

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain C.I.	Sanitary Bldg. Drain Other	Sanitary Bldg. Sewer C.I.	Sanitary Bldg. Sewer Other	Floor Drain Connected To: C.I. Sewer	Floor Drain Connected To: Other Sewer	Storm Bldg. Drain C.I.	Storm Bldg. Drain Other	Storm Bldg. C.I.	Storm Bldg. O
10										

Street Sewer San.	Street Sewer Storm	Other Sewers C.I.	Other Sewers Other	Foundation Drain Connected to: Sewer	Sewage Sump	Clearwater Dr.	Clearwater Sump	Sewage Sump C.I.	Sewage Sump Other	Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit: Seepage Pit	Seepage Bed	Seepage Trench	Manure Hold Retention or Pnuematic T
											75+					

Privy	Pet Waste Pit	Pit: Nonconforming Existing	Subsurface Pumproom	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit	Earthe Manur
		Well 100+	Nonconforming Existing								
		Pump									
		Tank									

Temporary Manure Stack or Platform	Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin / Concrete Floor Only / Concrete Floor and Partial Concrete Walls	Other (Describe)

5. Well is intended to supply water for: HOME

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20	5	20	136

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification

Dia. (in.)	Mfg. & Method of Assembly	From (ft.)	To (ft.)
5"	T&C THREAD	Surface	133
	B/K STEEL 15 lbs		
	PER SQ FT ASPHALT		
	53 SQ MIT.		
	SCREEN	133	136

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
SLURY	Surface	20

9. FORMATIONS

Kind	From (ft.)	To
CLAY	Surface	30
SAND & CLAY	30	10
CLAY	100	125
SAND	125	13

10. TYPE OF DRILLING MACHINE USED
☒ Cable Tool ☐ Rotary-air w/drilling mud ☐ Rotary w/drilling mud ☐ Rotary-hammer w/drilling mud & air ☐ Rotary-hammer & air ☐ Reverse Rotary ☐ Jetting wit ☐ Air ☐ Wat

Well construction completed on 3 13 19

11. MISCELLANEOUS DATA
Yield Test: 24 Hrs. at 12 GPM
Depth from surface to normal water level 70 Ft.
Depth of water level when pumping 70 Ft. Stabilized ☒ Yes ☐ No
Well is terminated 20 inches ☒ above ☐ below final grade
Well disinfected upon completion ☒ Yes ☐ No
Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to STATE laboratory on 3 14 19

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, meth finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: Thomas L Wilter Registered Well Driller

Business Name and Complete Mailing Address: PO. BOX 172 SALEM

MAY 12 19

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Kenosha { Town ☒ Village ☐ City ☐ } SALEM — Check one and give name

2. Location Castle Wood Sub. Volty LAKE Sec. 25 Tn. 1 R. 20 E.
Name of street and number of premise or Sec. Tn. and R. numbers

3. Owner ☒ or Agent ☐ M. A. SAFFIR
Name of individual, partnership or firm

4. Mail Address Antioch Ill
Complete address required

5. From well to nearest: Building 12 ft; sewer ____ ft; drain ____ ft; septic tank ____ ft; dry well or filter bed ____ ft; abandoned well ____ ft. privy 100 FT.

6. Well is intended to supply water for: home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)
6	0	20
4	20	240

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
4	galv. steel	0	240

9. GROUT:

Kind	From (ft.)	To (ft.)
mud	0	20

10. FORMATIONS:

	From (ft.)	To (ft.)
yellow clay	0	1
Bl. clay	1	9
sand & gravel	9	
Bl. clay	12	
sandy clay	2	
sand	2	
water gravel	2	

11. MISCELLANEOUS DATA:

Yield test: 6½ Hrs. at 8 GPM

Depth from surface to water: 90 ft.

Water-level when pumping: 95 ft.

Water sample sent to laboratory at Kenosha on May 6 1948

Construction of the well was completed on May 3 1948

The well is terminated 8 inch ☒ above, below ☐ the permanent ground surfac

Was the well disinfected upon completion? Yes X No ____

Was the well sealed watertight upon completion? Yes X No ____

Signature Robert T. Hilton
Registered Well Driller

Salem Wis
Complete Mail Address

APPENDIX C

SOIL BORING LOGS AND WELL CONSTRUCTION INFORMATION

C1 - Testing Service Corporation, 1973 (TSC1-TSC22)
C2 - Testing Service Corporation, 1974 (TSC23-TSC27)
C3 - Testing Service Corporation, 1974-1985 (G11S, G11D, G14D, G102, G103, R103)
C4 - Testing Service Corporation, 1980 (TSC 1001 - TSC 1004)
C5 - Testing Service Corporation, 1981 (TSC 201 - TSC 210 and TSC 1101 - TSC 1201)
C6 - Testing Service Corporation, 1983 (LP1 - LP10)
C7 - Testing Service Corporation, 1989-1991 (B1 - B75)
C8 - Kellet's Well Boring, Inc. 1988 (GWF1-GWF14)
C9 - U.S. EPA, 1987 (SB1, SB1A, US1D - US7S)
C10 - P.E. LaMoreaux and Associates Inc., 1989 (LB1 - LB10, PE3, PE3A)
C11 - P.E. LaMoreaux and Associates Inc., 1989 - 1990 (PZ1 - PZ6U)
C12 - P.E. LaMoreaux and Associates Inc., 1990 (SC1A - SC4D)
C13 - Patrick Engineering Inc., 1989 (IB1 - IB10, LB8, PE3, PE3A)
C14 - Litigation Plaintiff Boring VA5
C15 - Stratigraphics, 1990 (TLP1 - TLP5; Hydropunch HP1 near well US4S)

C1

TESTING SERVICE CORPORATION, 1973
(TSC 1-TSC 22)

BORING 1 DATE STARTED 5-24-73 DATE COMPLETED 5-24-73 JOB L-10,718

ELEVATION

GROUND SURFACE 99.2

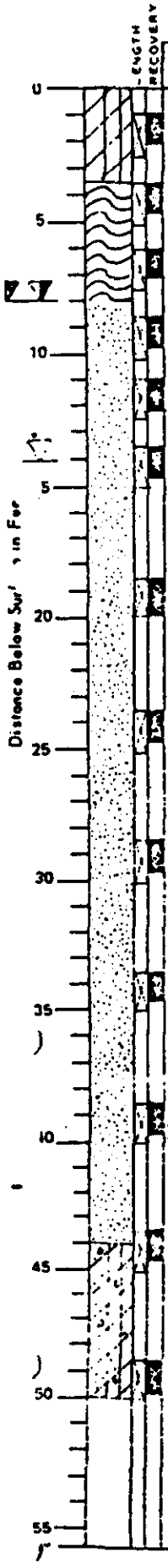
END OF BORING 49.2

WATER TABLE

AT END OF BORING -14.0'

24 HOURS - 8.0'

Water encountered at - 8.0' while drilling



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
	1	SS	23	13.4					FILL - Brown silty CLAY, moist
							3.5	95.7	
	2	SS	3	78.4					Soft gray PEAT, moist
	3	SS	5	185			8.0	91.2	
	4	SS	14						
	5	SS	18						
	6	SS	3						
	7	SS	15						Firm gray fine to coarse SAND, wet
	8	SS	14						
	9	SS	20						
	10	SS	20						
	11	SS	18						
	12	SS	19				44.0	55.2	
									Very tough gray silty CLAY, trace sand and gravel, moist
	13	SS	16	13.2	2.75*				

End of Boring at 50.0 feet

CB001058

* - Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

CONFIDENTIAL INFORMATION-LAWYERS ONLY

PROJECT PROPOSED CONSTRUCTION, H.O.D. DISPOSAL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 2 DATE STARTED 5-24-73 DATE COMPLETED 5-24-73 JOB L-10,715

ELEVATIONS

GROUND SURFACE 98.6

END OF BORING 48.6

WATER TABLE

AT END OF BORING "Dry"

24 HOURS "Dry"

While drilling "Dry"

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70

SAMPLE NO.	TYPE	N	WC	Qu	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	38	14.1	4.5+*			Hard brown silty CLAY, trace sand, few silt bands, moist
2	SS	35	15.1	13.47 4.5+*			
3	SS	41	13.6	8.41 4.5+*	7.5	91.1	
4	SS	16	15.3	2.75*			
5	SS	14	17.6	2.75*			
6	SS	16	15.7	2.75*			
7	SS	15	16.6	3.0*			Very tough gray silty CLAY, trace sand and gravel, moist
8	ST		16.9	3.17 3.0*			k = 2.7 x 10^{-8} cm/sec
9	SS	17	17.6	2.5*			
10	SS	22	17.5	3.25*			
					31.0	67.6	
					32.5	66.1	Firm gray GRAVEL, moist
11	SS	19	17.4	2.75*			
12	SS	21	10.1	3.0*			Very tough gray silty CLAY, trace sand and gravel, moist
13	SS	20	14.8	3.25*			
					48.0	50.6	
14	SS	35	19.1	7.91 4.5+*			Hard gray silty CLAY, trace sand and gravel, moist

End of Boring at 50.0 feet

* - Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

CB001059

TESTING SERVICE CORPORATION

DRILL RIG #0 26

PROJECT PROPOSED CONSTRUCTION, H.O.D. DISPOSAL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 2 DATE STARTED 5-24-73 DATE COMPLETED 5-24-73 JOB L-10,718

ELEVATIONS

GROUND SURFACE 98.6

END OF BORING 48.6

WATER TABLE

AT END OF BORING "Dry"

24 HOURS "Dry"

While drilling "Dry"

SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	38	14.1	4.5+*				
2	SS	35	15.1	12.47 4.5+*				Hard brown silty CLAY, trace sand, few silt bands, moist
3	SS	41	13.6	8.41 4.5+*		7.5	91.1	
4	SS	16	15.3	2.75*				
5	SS	14	17.6	2.75*				
6	SS	16	15.7	2.75*				
7	SS	15	16.6	3.0*				Very tough gray silty CLAY, trace sand and gravel, moist
8	ST		16.9	3.17 3.0*				$k = 2.7 \times 10^{-8}$ cm/sec
9	SS	17	17.6	2.5*				
10	SS	22	17.5	3.25*				[illegible] LAWYERS ONLY
						31.0	67.6	
						32.5	66.1	Firm gray GRAVEL, moist
11	SS	19	17.4	2.75*				
12	SS	21	10.1	3.0*				Very tough gray silty CLAY, trace sand and gravel, moist
13	SS	20	14.8	3.25*				
						48.0	50.6	
14	SS	35	19.1	7.91 4.5+*				Hard gray silty CLAY, trace sand and gravel, moist

End of Boring at 50.0 feet

* - Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

CB001059

TESTING SERVICE CORPORATION

DRILL RIG NO 26

PROJECT PROPOSED C[illegible] SUCTION, H.O.D. DISPOSAL SITE [illegible]TIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 3 DATE STARTED 6-15-73 DATE COMPLETED 6-15-73 JOB [illegible]

ELEVATIONS

GROUND SURFACE 120.1

END OF BORING 40.1

WATER TABLE

AT END OF BORING -8.0'

24 HOURS -6.0'

Water encountered at -6.0' while drilling

Sample No.	Type	N	WC	Q_u	γ_{DRY}	Depth	Elev.	Soil Descriptions
1	SS	6	15.2					FILL - Brown silty CLAY, with black clayey topsoil
2	SS	12	19.7			5.5	114.6	
3	SS	19	18.5	10.73 4.5+*				Hard brown silty CLAY, with gravel, moist
4	SS	23	19.1	8.20 4.5+*		10.5	109.6	
5	SS	27	20.4	4.25				Hard gray brown silty CLAY, with gravel, moist
6	SS	27	20.6	4.5+*		15.5	104.6	
7	SS	23	19.0	3.92 2.75*				
8	SS	23	19.1	2.75*				Hard to very tough gr[illegible]lty CLAY, trace of grave[illegible]st
9	SS	24	20.7	2.62 2.0*				
10	SS	21	19.0	2.25*		38.0	82.1	
11	SS	[illegible]	[illegible]	[illegible]*				Very tough gray silty CLAY, moist
12	SS	22	19.2	3.05 2.[illegible]*				
13	SS	[illegible]	20.0	2.25*		51.0	69.1	
14	SS	24	20.3	2.5*				
15	SS	20	20.1	4.05 2.75*				Very tough gray silty CLAY, trace of gravel, moist
16	SS	27	16.2	3.25*				
17	SS	31	18.0	2.0*				
18	SS	25	16.5	4.17 2.75*				
19	SS	30	16.6	[illegible]				

End of boring at 64.0 feet

* - Approximate unconfined compressio[illegible] strength based on measurements wi[illegible] a calibrated pocket penetrometer

Distance Below Surface in Feet

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB001060

PROJECT PROPOSED STRUCTION, H.C.D. DISPOSAL ST. ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 4 DATE STARTED 6-13-73 DATE COMPLETED 6-13-73 JOB L-10,7

ELEVATIONS

GROUND SURFACE 104.5

END OF BORING 74.5

WATER TABLE

AT END OF BORING - 8.0'

24 HOURS - 4.0'

Water encountered at -10.0' while drilling

SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
						1.0	103.5	FILL - Brown silty sandy CLAY
1	SS	16	18.1					FILL - Black silty CLAY, with broken gravel
2	SS	34	72.6					
						6.0	98.5	
3	SS	33	32.3					
4	SS	28	100					
5	SS	6	102					FILL - Garbage, wood, papers, etc.
6	SS	7	135					
7	SS	12	20.7					
			17.			22.0	82.5	
8	SS	11	17.3	1.25 1.75*				Tough to very tough gray silty CLAY, moist
9	SS	14	17.7	1.73 2.0*				

End of Boring at 30.0 feet

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35

* - Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

ATION-LAWYERS ONLY

CB 01061

PROJECT PROPOSED STRUCTION, H.O.D. DISPOSAL SI: ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 5 DATE STARTED 6-13-73 DATE COMPLETED 6-13-73 JOB L-1

ELEVATIONS

GROUND SURFACE 101.5

END OF BORING 81.5

WATER TABLE

AT END OF BORING -18.0'

24 HOURS - 5.0'

Water encountered at -17.0' while drilling

SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
						0.7	100.8	FILL - small to large GRAVEL
1	SS	22	16.6					FILL - Black silty CLAY, some gravel
2	SS	44	9.7					
3	SS	30	15.0			8.0	93.5	
4	SS	2	156					Soft brown PEAT, very moist
						10.5	91.0	
5	SS	10	19.2	1.43 1.25*				Tough gray silty CLAY, moist
6	SS	12	15.9	1.5*				
						18.0	83.5	
7	SS	17	15.5	3.04 2.75*				Very tough gray silty CLAY, moist

End of Boring at 20.0 feet

* - Approximate unconfined compress strength based on measurements a calibrated pocket penetromet

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

CONFIDENTIAL INFORMATION-LAWYERS

CB 01 06

TESTING SERVICE CORPORATION

PROJECT PROPOSED CONSTRUCTION, H.C.D. DISPOSAL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MA[illegible]MENT, INC., 900 Jorie Bouleva[illegible] Oak Brook, Illinois

BORING 6 DATE STARTED 6-13-73 DATE COMPLETED 6-13-73 JOB L-10,7

ELEVATIONS

GROUND SURFACE 97.3

END OF BORING 72.3

WATER TABLE

AT END OF BORING -14.0'

24 HOURS - 1.0'

Water encountered at- 3.5' while drilling

SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
						0.5	96.8	FILL - Brown silty CLAY, with sand and gravel
1	SS	1	189					Very soft black PEAT, very moist
2	SS	1	245					
3	SS	1	368			7.5	89.8	
4	SS	5				10.0	87.3	Loose gray SAND, trace clay binder, moist
5	SS	9	16.8	1.0*		13.0	84.0	Tough gray silty CLAY, trace organic, moist
6	SS	11	14.5	2.92 2.5*				
7	SS	20	15.5	5.6 4.5+*				Very tough to hard gray silty CLAY, trace of gravel, moist
8	SS	17	13.3	1.47 1.5*				

End of Boring at 25.0 feet

* - Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

CB 001063

TESTING SERVICE CORPORATION

PROJECT PROPOSED CC .RUCTION, H.O.D. DISPOSAL SITE NTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 7 DATE STARTED 6-13-73 DATE COMPLETED 6-13-73 JOB L-10,

ELEVATIONS

GROUND SURFACE 96.6

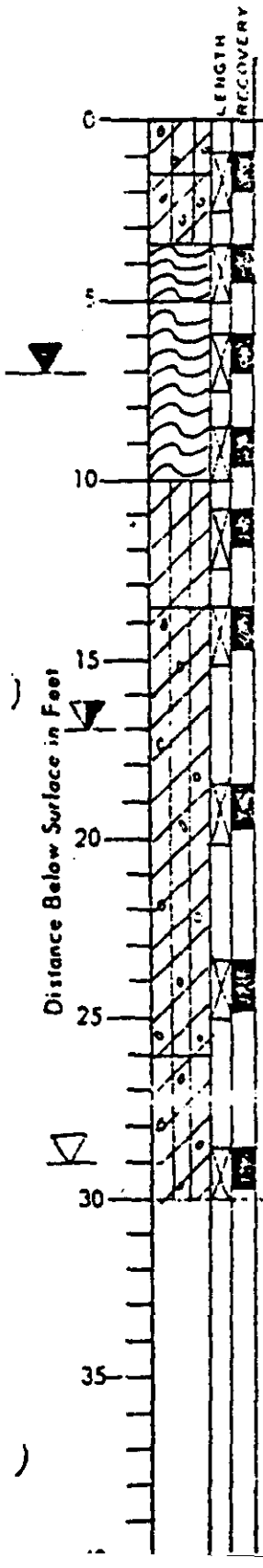
END OF BORING 66.6

WATER TABLE

AT END OF BORING -29.0'

24 HOURS - 7.0'

Water encountered at -17.0' while drilling



SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
a			20.3			1.5	95.1	FILL - Brown silty CLAY, with gravel
1b	SS	4	15.6			3.5	93.1	FILL - Gray silty CLAY, with gravel
2	SS	2	230			5.0	91.6	Soft black PEAT, very moist
3	SS	1	322					Very soft brown PEAT, very moist
4	SS	1	339			10.0	86.6	
5	SS	4	18.6	1.0*		13.5	83.1	Tough gray silty CLAY, moist
6	SS	6	19.0	1.79 1.75*				
7	SS	13	13.6	2.73 2.5*				Tough to very tough gray silty CLAY, trace of gravel, moist
8	SS	23	13.8	4.5+*		26.0	70.6	
9	SS	30	13.9					Hard gray silty CLAY, trace gravel, moist

End of Boring at 30.0 feet

* - Approximate unconfined compres strength based on measurements a calibrated pocket penetromete

CB 01064

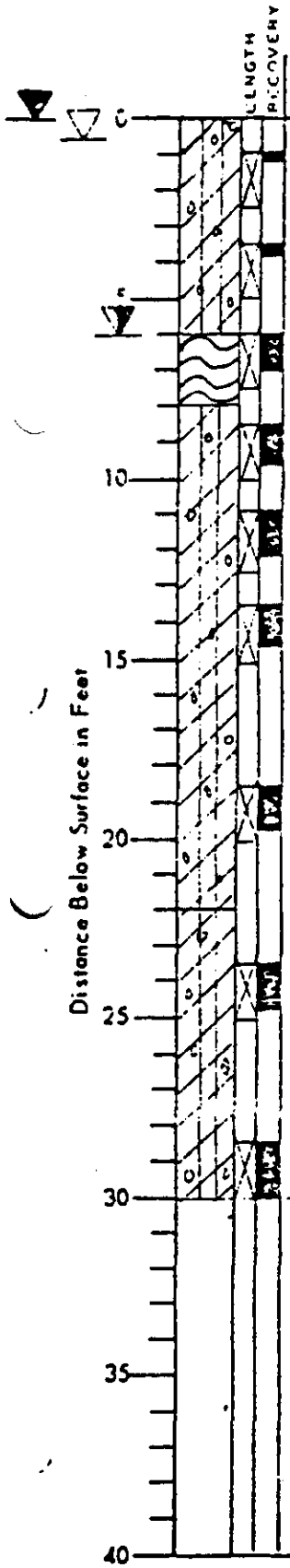
PROJECT PROPOSED CONSTRUCTION, H.O.D. DISPOSAL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 8 DATE STARTED 6-14-73 DATE COMPLETED 6-14-73 JOB L-10,

ELEVATIONS		WATER TABLE	
GROUND SURFACE	97.0	AT END OF BORING	-0'6"
END OF BORING	67.0	24 HOURS	-0'0"

Water encountered at -6.0' while drilling



SAMPLE NO.	TYPE	N	WC	Q_u	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	4	15.7					FILL - Brown silty CLAY, with gravel
2	SS	4	14.5					
						6.0	91.0	
3	SS	2	150			8.0	89.0	Soft brown PEAT, very moist
4	SS	7	20.2	1.05 1.0*				
5	SS	8	20.2	1.0*				Tough to very tough gray silty CLAY, trace of gravel, moist
6	SS	6	17.0	1.40 2.0*				
7	SS	16	14.1	2.79 2.25*				
						22.0	75.0	
8	SS	20	18.4	3.75*				Very tough to hard gray silty CLAY, trace of gravel, moist
9	SS	23	19.2	4.69 3.75*				

End of Boring at 30.0 feet

* - Approximate unconfined compressi strength based on measurements a calibrated pocket penetromet

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB001063

PROJECT PROPOSED CONSTRUCTION, H.C.D. DISPOSAL SITE, QUEJOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 7-A DATE STARTED 8-9-73 DATE COMPLETED 8-9-73 JOB I-10,718

ELEVATIONS

GROUND SURFACE 96.6

END OF BORING 36.6

WATER TABLE

AT END OF BORING -12.0'

24 HOURS

Water encountered @ -33.0' while drilling

Distance Below Surface in Feet	Length Recovery	Sample No.	Type	N	WC	Q_u	γ DRY	Depth	Elev.	Soil Descriptions
0										
5										
10										
15										See Boring 7
20										
25										
30								30.0	66.6	
35		10	SS	16	17.3	3.09 3.0*				Very tough gray silty CLAY, trace sand and gravel, moist
40		11	SS	70				38.0	58.6	Dense to very dense gray SAND and GRAVEL, wet
45		12	SS	18	17.8	2.75*		43.0	53.6	
50		13	SS	24	19.0	1.90 2.0*				Very tough to tough gray silty CLAY, trace gravel, moist
55		14	SS	20	18.9	2.38 2.5*				
60		15	SS	24	17.6	1.79 2.0*				
65										
70										

End of Boring at 60.0 feet

*- Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB001065

TESTING SERVICE CORPORATION

PROJECT PROPOSED C STRUCTION, H.O.D. DISPOSAL SITE ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 9 DATE STARTED 6-14-73 DATE COMPLETED 6-14-73 JOB L-10,718

ELEVATIONS

GROUND SURFACE 96.0

END OF BORING 71.0

WATER TABLE

AT END OF BORING "Dry"

24 HOURS -1.5'

While drilling "Dry"

SAMPLE NO.	TYPE	N	WC	Q_u	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	2	28.7					FILL - Brown silty sandy CLAY
						3.0	93.0	
2	SS	1	45.4					Soft brown PEAT, very moist
3	SS	1	227					
4	SS	1	410					
						10.5	85.5	
5	SS	2	139			12.0	84.0	Very soft gray organic SILT, very moist
6	SS	12	16.4	1.0*				
								Tough to very tough gray silty CLAY, moist
7	SS	22	14.6	1.5*				
8	SS	25	12.9	4.41 3.75*				
								End of Boring at 25.0 feet

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35

* - Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB001087

PROJECT PROPOSED CONS. ..CTION, H.O.D. DISPOSAL SITE, A.. ..OOH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 10 DATE STARTED 8-6-73 DATE COMPLETED 8-6-73 JOB L-10,716

ELEVATIONS

GROUND SURFACE 97.8

END OF BORING 37.8

WATER TABLE

AT END OF BORING - 6.0'

24 HOURS

Water encountered @ -22.0' while drilling

SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
								Black clayey and sandy TOPSOIL
						3.0	94.8	
1	SS	8	18.3					Loose gray SILT, moist
						8.0	89.8	
2	SS	7	13.5	2.03 2.25*				
3	SS	12	11.4	2.68 3.0*				Tough to very tough gray-brown silty CLAY, trace small gravel, moist
4	SS	12	13.7	3.33 3.5*				
						23.0	74.8	
5	SS	18						
6	SS	24						Firm gray coarse SAND and GRAVEL, wet
7	SS	15	18.4	1.54 1.5*		34.0	63.8	Tough gray silty CLAY, moist
						38.0	59.8	
8	SS	22	15.8	2.25*				
9	SS	18	15.9	2.98 2.25*				Very tough gray silty CLAY, trace gravel, moist
10	SS	24	15.6	2.5*				
11	SS	18	15.7	3.4 3.0*				
12	SS	21	21.9	1.6 2.0*				

End of Boring at 60.0 feet

*- Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

Distance Below Surface in Feet

CONFIDENTIAL INFORMATION-LAWYERS 0

CB001066

DRILL RIG NO. 60

TESTING SERVICE CORPORATION

PROJECT PROPOSED CO. .TRUCTION, H.O.D. DISPOSAL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 12 DATE STARTED 8-2-73 DATE COMPLETED 8-2-73 JOB L-10,718

ELEVATIONS

GROUND SURFACE 94.88

END OF BORING 79.88

WATER TABLE

AT END OF BORING -8.0'

24 HOURS

Water encountered @ -11.0' while drilling

Distance Below Surface in Feet	LENGTH	RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
0											Dark brown PEAT
			1	SS	2	17.1					
									5.0	89.88	
10			2	SS	11						Tough to very tough gray silty CLAY, trace gravel, moist
15			3	SS	12						
			End of Boring at 15.0 feet								
20											
25											
30											
35											

*- Approximate unconfined compressi strength based on measurements w a calibrated pocket penetrometer

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB 01070

PROJECT PROPOSED CONSTRUCTION, H.O.D. DISPOSAL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 11 DATE STARTED 8-6-73 DATE COMPLETED 8-7-73 JOB 1-10,718

ELEVATIONS

GROUND SURFACE 98.5

END OF BORING 38.5

WATER TABLE

AT END OF BORING

24 HOURS

Length Recovery	Sample No.	Type	N	WC	Q_u	% DRY	Depth	Elev.	Soil Descriptions
							1.0	97.5	Brown sandy TOPSOIL
	1	SS	8	14.9	2.0*				Very tough to hard gray-brown silty CLAY, trace sand and gravel, moist
	2	SS	14	16.8	4.52 4.5*				
	3	SS	14	13.2	5.18 4.5*		13.0	85.5	
	4	SS	11	20.0	2.25*				Hard to very tough gray silty CLAY, trace sand, moist
	5	SS	18	10.5	2.5*		23.0	75.5	Very tough gray silty CLAY, trace sand and gravel, moist
	6	SS	15	20.0	1.79 2.75*		28.0	70.5	
	7	SS	14	15.6	1.85 2.25*				
	8	SS	14	19.1	2.5*				Very tough to hard gray silty CLAY, trace sand and gravel, moist
	9	SS	19	15.6	5.36 4.5*				
	10	SS	19	19.8	2.75*				
	11	SS	24	17.4	2.49 3.0*				
	12	SS	19	17.8	2.22 2.5*				

End of Boring at 60.0 feet

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60

*- Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB001069

TESTING SERVICE CORPORATION

PROJECT PROPOSED (STRUCTION, H.O.D. DISPOSAL SIT ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 12-B DATE STARTED 8-3-73 DATE COMPLETED 8-3-73 JOB L-10,7

ELEVATIONS

GROUND SURFACE 94.71

END OF BORING 74.71

WATER TABLE

AT END OF BORING "Dry"

24 HOURS

While Drilling "Dry"

LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
	1	SS	2	282					Soft black PEAT and organic MARL
							8.0	86.71	
	2	SS	1	28.9					Stiff to tough gray silty CLAY, trace small gravel, moist
							13.0	81.71	
	3	SS	8	20.3	1.79 2.00*				
	4	SS	8	19.5	1.75*				Tough gray silty CLAY, trace gr and sand, moist

End of Boring at 20.0 feet

*- Approximate unconfined compressic strength based on measurements 1 a calibrated pocket penetromete:

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

CB001072

ATION-LAWYERS ONLY

TESTING SERVICE CORPORATION

PROJECT PROPOSED CONSTRUCTION, H.O.D. DISPOSAL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 12-A DATE STARTED 8-2-73 DATE COMPLETED 8-2-73 JOB L-10,718

ELEVATIONS

GROUND SURFACE 94.50

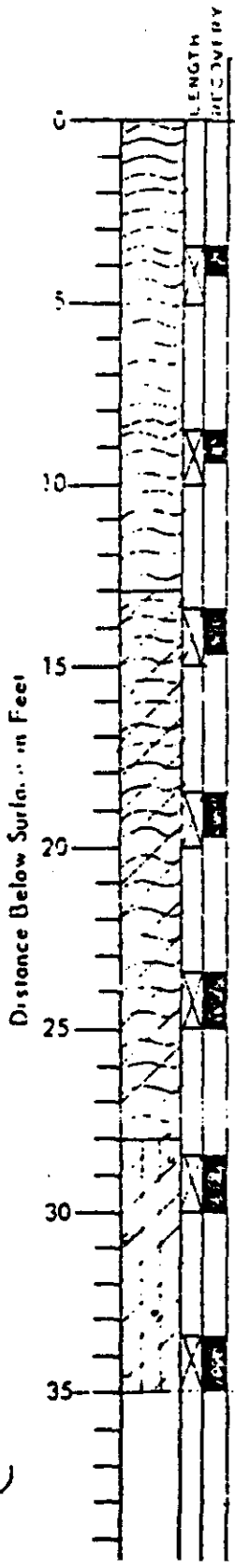
END OF BORING 59.50

WATER TABLE

AT END OF BORING "Dry"

24 HOURS

While Drilling "Dry"



SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	4	60.3					Dark brown and black PEAT, very moist
2	SS	2						
						13.0	81.50	
3	SS	1	280					
4	SS	4	89.1					Soft gray PEAT and organic CLAY very moist to moist
5	SS	4						
						28.0	66.50	
6	SS	14						Stiff to tough gray silty CLAY, trace gravel, moist
7	SS	16						

End of Boring at 35.0 feet

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB 001 071

PROJECT PROPOSED CONSTRUCTION, H.O.D. DEBRIS SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 14 DATE STARTED 8-3-73 DATE COMPLETED 8-3-73 JOB L-10,7

ELEVATIONS

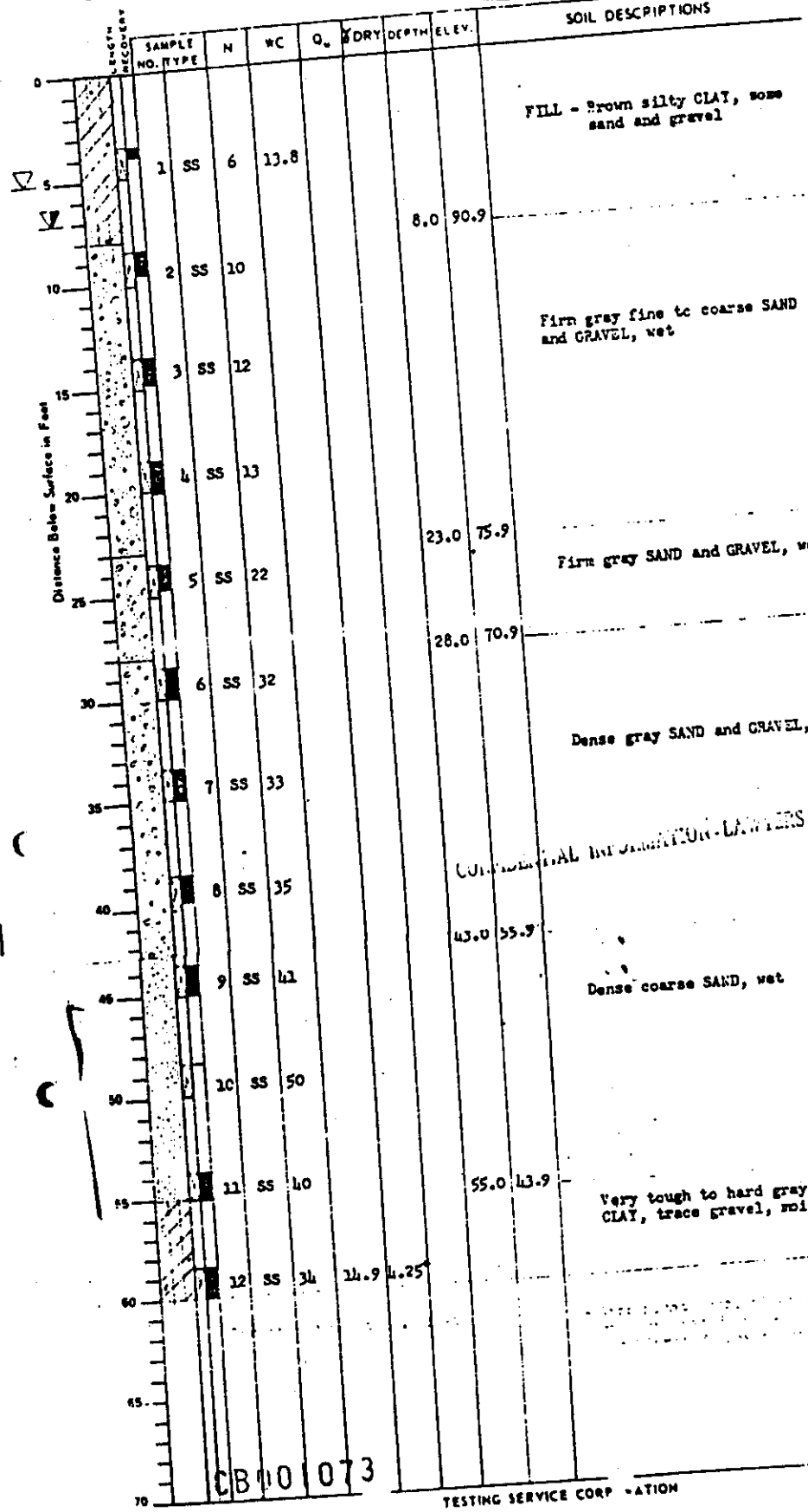
GROUND SURFACE 98.9

END OF BORING 38.9

WATER TABLE

AT END OF BORING -7.0'

24 HOURS Water encountered @ -5.0' while drilling



CONFIDENTIAL INFORMATION-LAWYERS OF

CB 0 0 7 3

TESTING SERVICE CORPORATION

DRILL RIG NO 60

PROJECT FROPO CONSTRUCTION, H.O.D. DISPOSAL TE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 13 DATE STARTED 8-2-73 DATE COMPLETED 8-2-73 JOB L-10,72

ELEVATIONS

GROUND SURFACE 100.1

END OF BORING 45.1

WATER TABLE

AT END OF BORING - 6.0'

24 HOURS

Water encountered @ -28.0' while drilling

SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	6	14.4					FILL - Brown silty CLAY, TOPSOIL and GRAVEL
						6.0	94.1	
								FILL - Gray silty CLAY .
2	SS	2	16.7			10.0	90.1	
								Soft gray organic CLAY, very m
						13.0	87.1	
3	SS	4	43.9					Soft to stiff gray silty CLAY, trace sand, very moist
						18.0	82.1	
4	SS	22						
5	SS	20						
								Firm gray fine to coarse SAND and GRAVEL, wet
6	SS	22						
7	SS	22						
						38.0	62.1	
8	SS	55						
								Dense to very dense gr[illegible]e to coarse SAND and GRAV[illegible] wet
9	SS	60						
						48.0	52.1	
10	SS	18	15.3	1.73 2.25*				Tough to very tough gray silty CLAY, trace gravel, moist
11	SS	21	18.1	2.56 2.5*				

End of Boring at 55.0 feet

*- Approximate unconfined compressi strength based on measurements w a calibrated pocket penetrometer

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB001074

DRILL RIG NO. 60

TESTING SERVICE CORPORATION

PROJECT PROPOSED C RUCTION, H.O.D. DISPOSAL SITE NTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 18 DATE STARTED 8-9-73 DATE COMPLETED 8-9-73 JOB L-10,71

ELEVATIONS

GROUND SURFACE 100.94

END OF BORING 75.94

WATER TABLE

AT END OF BORING -4.0'

24 HOURS

Water encountered @ -5.0' while drilling

SAMPLE NO.	TYPE	N	WC	Qu	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
								FILL - Brown silty CLAY, GRAVEL
						4.0	96.94	
1	SS	4	13.7					
								FILL - MISCELLANEOUS GARBAGE.
2	SS	4	26.0					
						13.0	87.94	
3	SS	6	18.5	1.25*				Stiff to tough gray silty CLAY, trace gravel, moist
						18.0	82.94	
4	SS	14	14.9	3.09 3.0*				Very tough gray silty CLAY, trac sand and gravel, moist
5	SS	16	17.0	2.73 3.0*				

End of Boring at 25.0 feet

*- Approximate unconfined compression strength based on measurements wit a calibrated pocket penetrometer

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB001078

TESTING SERVICE CORPORATION

PROJECT PROPOSED ' STRUCTION, H.O.D. DISPOSAL SIT)ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 17 DATE STARTED 8-9-73 DATE COMPLETED 8-9-73 JOB L-10,718

ELEVATIONS

GROUND SURFACE 101.23

END OF BORING 81.23

WATER TABLE

AT END OF BORING -2.0'

24 HOURS

Water encountered @ -3.0' while drilling

SAMPLE NO.	TYPE	N	WC	Q,	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	20	12.0					FILL - GRAVEL, CINDERS, CLAY
						8.0	93.23	
2	SS	4	29.8	0.95 1.25*				Stiff to tough brown-gray silty CLAY, trace gravel, moist
						13.0	88.23	
3	SS	11	16.7	3.0*				Very tough brown-gray silty CLAY, trace gravel, moist
						18.0	83.23	
4	SS	22	16.7	2.62 2.75*				Very tough gray silty CLAY, trace gravel, moist

End of Boring at 20.0 feet

*- Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

Distance Below Surface in Feet

0 5 10 15 20 25 30 35 40

CB001077

CONFIDENTIAL INFORMATION-LAWYERS ONLY

PROJECT PROPOSED CONSTRUCTION, H.O.D. DISPOSAL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 16 DATE STARTED 8-8-73 DATE COMPLETED 8-9-73 JOB L-10,7

ELEVATIONS

GROUND SURFACE 94.88

END OF BORING 54.88

WATER TABLE

AT END OF BORING -21.0'

24 HOURS

Water encountered @ -21.0' while drilling

SAMPLE NO.	TYPE	N	WC	Qu	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
								Black PEAT
						3.0	91.88	
1	SS	10						
2	SS	12						Firm gray fine to coarse SAND and GRAVEL, wet
3	SS	12						
4	SS	24						
						23.0	71.88	
5	SS	24						Firm gray SILT, wet
						28.0	66.88	
6	SS	32						Dense gray SAND and GRAVEL, wet
						33.0	61.88	
7	SS	20	16.1	1.67 2.0*				Tough to very tough gray silty CLAY, trace gravel, moist
8	SS	22	16.2	3.46 3.25				

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

CONFIDENTIAL INFORMATION-LAWYERS C

*- Approximate unconfined compressic strength based on measurements a calibrated pocket penetrometer

CB 001075

TESTING SERVICE CORPORATION

PROJECT PROPOSED CONSTRUCTION, H.O.D. DISPOSAL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 15 DATE STARTED 8-9-73 DATE COMPLETED 8-9-73 JOB 1-10,7

ELEVATIONS

GROUND SURFACE 95.27

END OF BORING 40.27

WATER TABLE

AT END OF BORING -6.0'

24 HOURS

Water encountered @ -7.0' while drilling

SAMPLE NO.	TYPE	N	WC	Q_u	∡DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	1	228					Black and brown PEAT, moist
						8.0	87.27	
2	SS	13						Firm gray fine to coarse SAND, some gravel, wet
3	SS	18						
						18.0	77.27	
4	SS	23						
5	SS	50/4"						Firm gray SAND and GRAVEL, wet
6	SS	24						
7	SS	28						
						38.0	57.27	
8	SS	25						Firm gray SILT, moist
						43.0	52.27	
9	SS	23						Firm gray SAND and GRAVEL, wet
10	SS	24						
						53.0	42.27	
11	SS	24	16.2	3.46 3.0*				Very tough gray silty CLAY, trace gravel, moist

End of Boring at 55.0 feet

*- Approximate unconfined compressi strength based on measurements w a calibrated pocket penetrometer

NOTE: HIGH BLOW COUNT FOR SAMPLE ATTRIBUTED TO LARGE GRAVEL OR BOULDER

Distance Below Surface in Feet

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB001075

DRILL RIG NO. 60

TESTING SERVICE CORPORATION

PROJECT PROPOSED [illegible]STRUCTION, H.O.D. DISPOSAL SIT[illegible] ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 19 DATE STARTED 8-7-73 DATE COMPLETED 8-7-73 JOB L-10,7

ELEVATIONS

GROUND SURFACE 103.57

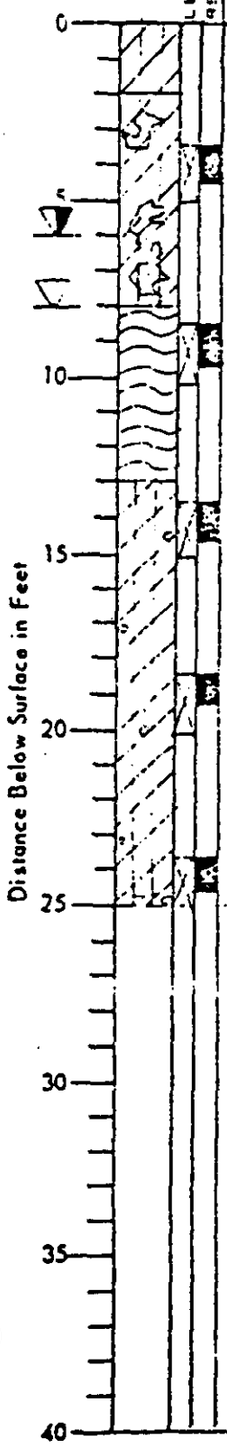
END OF BORING 78.57

WATER TABLE

AT END OF BORING -8.0'

24 HOURS

Water encountered @ -6.0' while drilling



SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
						2.0	101.57	FILL - Brown silty CLAY
1	SS	8						FILL - GARBAGE, silty CLAY
						8.0	95.57	
2	SS	6	626					Soft black and brown PEAT
						13.0	90.57	
3	SS	6	20.3	1.43 1.75*				Tough to very tough gray silty CLAY, trace small gravel, moist
4	SS	14	15.9	3.33 3.0*				
5	SS	13	14.3	1.25 1.75*				

End of Boring at 25.0 feet

*- Approximate unconfined compressi[illegible] strength based on measurements [illegible] a calibrated pocket penetromete[illegible]

CONFIDENTIAL [illegible] LAWYERS ON[illegible]

08001080

TESTING SERVICE CORPORATION

PROJECT PROPOSED CO..TRUCTION, H.O.D. DISPOSAL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 18-S DATE STARTED 8-9-73 DATE COMPLETED 8-9-73 JOB L-10,718

ELEVATIONS

GROUND SURFACE 101.33

END OF BORING 76.33

WATER TABLE

AT END OF BORING -5.0'

24 HOURS

Water encountered @ -7.0' while drilling

SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	6	16.5					FILL - Brown silty CLAY, TOPSOIL, GRAVEL
2	SS	4	22.1			10.0	91.33	
								FILL - GARBAGE and silty CLAY
3	SS	6	23.2					
						18.0	83.33	
4	SS	15	14.4	2.14 2.25*				Very tough gray silty CLAY, trace gravel, moist
5	SS	8	15.5	2.38 2.5*				

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

End of Boring at 25.0 feet

* - Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB001079

PROJECT PROPOSED C TRUCTION, H.O.D. DISPOSAL SITE ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 21 DATE STARTED 8-8-73 DATE COMPLETED 8-8-73 JOB L-10,7

ELEVATIONS

GROUND SURFACE 102.86

END OF BORING 87.86

WATER TABLE

AT END OF BORING "Dry"

24 HOURS

While Drilling "Dry"

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
0										
5		1	SS	10	19.3					FILL - Brown and gray silty CLAY, trace gravel
								8.0	94.86	
10		2	SS	18	15.5	5.41 4.5+*				Hard gray silty CLAY, trace sand and gravel, moist
15		3	SS	14	15.2	5.00 4.5+*				
		End of Boring at 15.0 feet								
20										
25										
30										
35										
40										

* - Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer

CB001083

TESTING SERVICE CORPORATION

DRILL RIG NO. 60

PROJECT PROPOSED CONSTRUCTION, H.O.D. DISPOSAL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 20 DATE STARTED 8-9-73 DATE COMPLETED 8-9-73 JOB L-10,718

ELEVATIONS

GROUND SURFACE 104.00

END OF BORING 89.00

WATER TABLE

AT END OF BORING "Dry"

24 HOURS

While Drilling "Dry"

SAMPLE NO.	TYPE	N	WC	Qu	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
								FILL - Brown silty CLAY
1	SS	6	16.8					
						6.0	98.00	Soft to stiff gray silty CLAY, tra sand, moist
						7.0	97.00	
2	SS	14	15.0	3.92 4.0*				Very tough to hard brown-gray silty CLAY, trace gravel, moist
3	SS	16	16.5	6.12 4.5+*				

End of Boring at 15.0 feet

*- Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB001081

TESTING SERVICE CORPORATION

PROJECT PROPOSED CONSTRUCTION, H.O.D. DISPOSAL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 Jorie Boulevard, Oak Brook, Illinois

BORING 22 DATE STARTED 8-7-73 DATE COMPLETED 8-7-73 JOB L-10,718

ELEVATIONS

GROUND SURFACE 102.46

END OF BORING 87.46

WATER TABLE

AT END OF BORING "Dry"

24 HOURS

While Drilling "Dry"

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
0										FILL - Brown silty CLAY, TOPSOIL, GRAVEL
5		1	SS	12	17.0					
								8.0	94.46	
10		2	SS	18	14.9	7.61 4.5+*				Hard to very tough gray-brown silty CLAY, trace small gravel, moist
15		3	SS	12	14.6	2.27 2.25*				
		End of Boring at 15.0 feet								
20										
25										
30										
35										
40										

*- Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB001083

TESTING SERVICE CORPORATION

DRILL RIG NO. 60

C2

TESTING SERVICE CORPORATION, 1974
(TSC 23-TSC 27)

PROJECT R.O.D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT GEOTECH, INC., 224 N. Broadway, Joliet, Illinois

BORING 23 DATE STARTED 5-6-74 DATE COMPLETED 5-6-74 JOB 1-10,7

ELEVATIONS

GROUND SURFACE

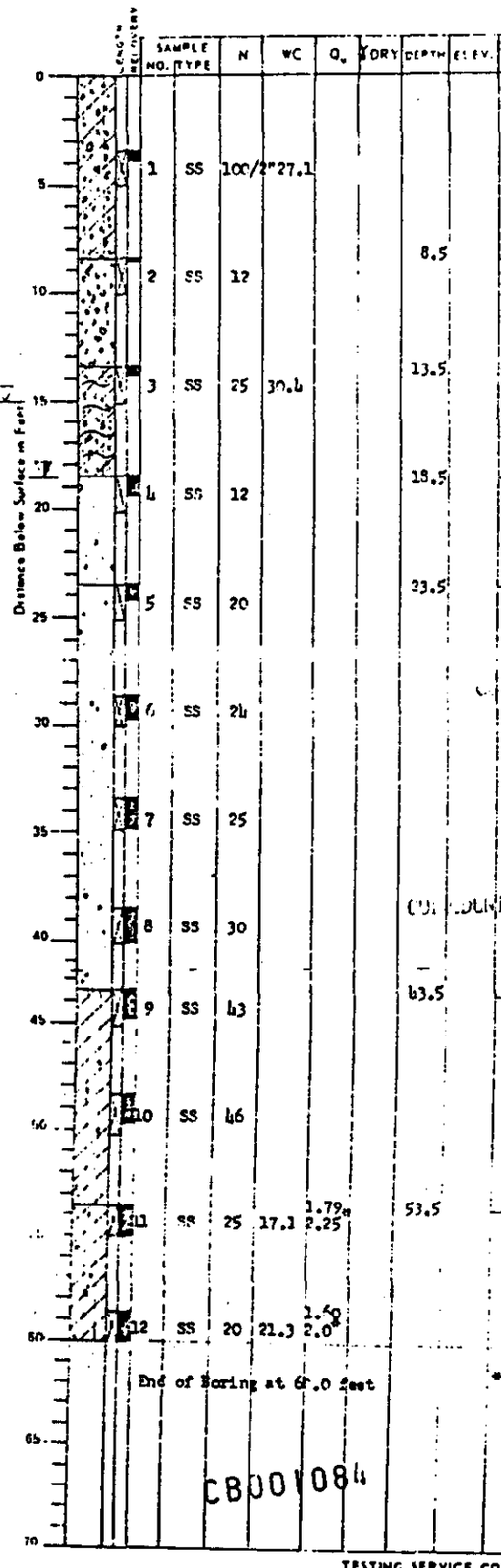
END OF BORING

WATER TABLE

AT END OF BORING Caved at -15.0'

24 HOURS Cared in

Water encountered at -18.5' while drilling



SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	100/2"	27.1					FILL - Brown silty CLAY, with pa rocks, & rarbage
						8.5		
2	SS	12						FILL - BOARDS, CLOTH BAGS, GARBAG
						13.5		
3	SS	25	30.4					FILL - Dark brown silty CLAY, wit wood carbage & cremnic material
						18.5		
4	SS	12						Firm gray fine to coarse SAND, trace small gravel, moist
						23.5		
5	SS	20						
6	SS	24						Firm to dense gray fine to coarse SAND, trace small gravel, saturate
7	SS	25						
8	SS	30						
						43.5		
9	SS	43						Dense gray clayey SILT, trace sand & gravel, cobble at 43.5 feet, moist
10	SS	46						
11	SS	25	17.1	1.79* 2.25		53.5		Tough gray silty CLAY, trace small gravel, moist
12	SS	20	21.3	1.40 2.0*				

End of Boring at 60.0 feet

* - Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

CONFIDENTIAL INFORMATION LAWYERS ONLY

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB001084

DRILL RIG NO 60

TESTING SERVICE CORPORATION

PROJECT H.O.D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT GEOTECH, INC., 224 N. Broadway, Joliet, Illinois

BORING 24 DATE STARTED 5-8-74 DATE COMPLETED 5-8-74 JOB L-1

ELEVATIONS

GROUND SURFACE

END OF BORING

WATER TABLE

AT END OF BORING "Dry"

24 HOURS

While drilling "Dry"

SAMPLE NO	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	35						Firm gray fine to coarse SAN moist
						7.0		
2	SS	6	15.8					FILL - Brown silty CLAY, tra topsoil & small grave & sand, moist
						13.0		
3	SS	7	23.2					Soft gray organic CLAY, trac fine sand, moist
						19.0		
4	SS	21	15.8	2.56 2.0*				Very tough brown & gray silty L with pockets of silt, moist
						23.5		
5	SS	21	14.8	5.12 4.5+*				Hard brown & gray silty CLAY trace small gravel & coarse moist

End of Boring at 25.0 feet

* - Approximate unconfined compre strength based on measuremen a calibrated pocket penetrom

Distance Below Surface in Feet

0 5 10 15 20 25 30 35 40

CB001085

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TESTING SERVICE CORPORATION

PROJECT H.O.D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT GEOTECH, INC., 224 N. Broadway, Joliet, Illinois

BORING 25 DATE STARTED 5-8-74 DATE COMPLETED 5-8-74 JOB L-10,7

ELEVATIONS

GROUND SURFACE

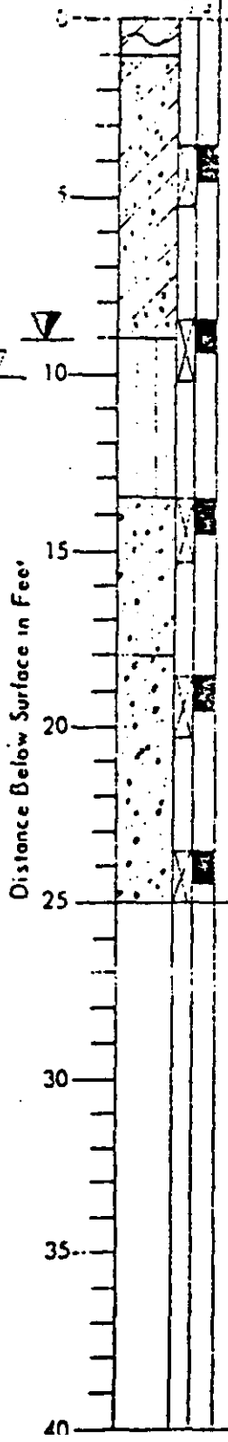
END OF BORING

WATER TABLE

AT END OF BORING -10.0'

24 HOURS

Water encountered at - 9.0' while drilling



SAMPLE NO.	TYPE	N	WC	O,	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
						1.0		Brown clayey TOPSOIL
1	SS	21						Firm brown fine to coarse SAND, with small gravel, & trace clay moist
2	SS	10	19.5			9.0		Firm gray sandy SILT, with litt fine sand, very moist
						13.5		
3	SS	22						Firm gray fine to coarse SAND & small GRAVEL, saturated
						18.0		
4	SS	23						Dense gray fine to coarse SAND with small to medium gravel, saturated
5	SS	37						

End of Boring at 25.0 feet

CONFIDENTIAL INFORMATION - LAWYERS ONLY

CB001086

PROJECT H.O.D. DFILL SITE, ANTIOCH, ILLINOIS

CLIENT GEOTECH, INC., 224 N. Broadway, Joliet, Illinois

BORING 26 DATE STARTED 5-7-74 DATE COMPLETED 5-7-74 JOB L-10

ELEVATIONS

GROUND SURFACE

END OF BORING

WATER TABLE

AT END OF BORING -5.0'

24 HOURS -4.0'

Water encountered at -8.0' while drilling

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
0										Black PEAT
								2.0		FILL - Brown silty CLAY, trace organic & small gravel moist
5		1	SS	8	18.1			5.0		
										Firm gray fine to coarse SAND, saturated
10		2	SS	12						
								14.0		Tough gray silty CLAY, trace organic & shale, moist
15		3	SS	17	24.6					
								17.0		Firm gray fine to coarse SAND trace small gravel, saturated
20		4	SS	24						
25		5	SS	24						
										End of Boring at 25.0 feet
30										
35										
40										

...ATION-LAWYERS ONL

TESTING SERVICE CORPORATION

PROJECT S.C.O. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT [illegible] INC., 224 N. Broadway, Joliet, Illinois

BORING 27 DATE STARTED 5-7-74 DATE COMPLETED 5-7-74 JOB L-10,710

ELEVATIONS

GROUND SURFACE

END OF BORING

WATER TABLE

AT END OF BORING -5.0'

24 HOURS -3.0'

Water encountered at -13.0' while drilling

SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
						0		Black sandy TOPSOIL
						2.0		Tough brown & gray silty CLAY trace fine sand, moist
1	SS	9	18.1	1.43 2.5*				
						6.0		Dense brown clayey SAND, with some gravel, moist
2	SS	32						
						11.0		
3	SS	25	14.0	2.03* 2.25				
4	SS	22	14.4	2.62				Very tough brown silty CLAY, trace coarse sand, occasional layers of cobbles, boulders at 18.0 feet, moist
5	SS	21	11.4	2.75*				
6	SS	30	12.5	3.25*				
						33.5		Firm gray silty fine grained SAND, saturated
7	SS	12				35.0		
								Very tough gray silty CLAY, trace fine sand, moist
8	SS	35	17.7	2.98* 2.75*		40.0		
								Very tough gray silty CLAY, trace fractured rock & coarse sand, boulders at 43.5 feet
9	SS	38	12.4			45.0		
								Very tough gray silty CLAY, trace fine sand & small gravel, moist
10	SS	24	13.9	2.86 1.5*				
								End of Boring at 50.0 feet

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65

* - Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

CONFIDENTIAL INFORMATION-LAWYERS ONLY

CB00 087

TESTING SERVICE CORPORATION

DRILL RIG NO 60

C3

TESTING SERVICE CORPORATION, 1974-1985
(G11S, G11D, G14S, G14D, G102, G103, R103)

G115 and G110

PROJECT H.O.D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT GEOTECH, INC., 224 N. Broadway, Joliet, Illinois

BORING 24 DATE STARTED 5-8-74 DATE COMPLETED 5-8-74 JOB 1-10,

ELEVATIONS

GROUND SURFACE 766.8

END OF BORING 741.8

WATER TABLE

AT END OF BORING "Dry"

24 HOURS

While drilling "Dry"

Distance Below Surface in Feet	Length Recovery	Sample No.	Type	N	WC	Q_u	γ_{DRY}	Depth	Elev.	Soil Descriptions
0										G115 Firm gray fine to coarse SAND, moist
5		1	SS	35						
								7.0		FILL - Brown silty CLAY, trace topsoil & small gravel & sand, moist
10		2	SS	6	15.8					
								13.0		Soft gray organic CLAY, trace fine sand, moist
15		3	SS	7	23.2					
						2.56		19.0		
20		4	SS	21	15.8	2.0*				Very tough brown & gray silty CLAY, with pockets of silt, moist
						5.12		23.5		
25		5	SS	21	14.8	4.5+*				G110 Hard brown & gray silty CLAY, trace small gravel & coarse sa moist
G110										
		End of Boring at 25.0 feet								* - Approximate unconfined compressi strength based on measurements w a calibrated pocket penetrometer
30										
35										
40										

TESTING SERVICE CORPORATION

DRILL RIG NO. 60

145 and G140

PROJECT H.C.C.L. FILL SITE, ANTIOCH, ILLINOIS

CLIENT GEOTECH, INC., 224 N. Broadway, Joliet, Illinois

BORING 27 DATE STARTED 5-7-74 DATE COMPLETED 5-7-74 JOB [illegible]

ELEVATIONS

GROUND SURFACE 767.0'

END OF BORING 717.0

WATER TABLE

AT END OF BORING -5.0'

24 HOURS -3.0'

Water encountered at -13.0' while drilling

Sample No.	Type	N	WC	Q_u	γ_{DRY}	Depth	Elev.	Soil Descriptions
						2.0		Black sandy TOPSOIL
1	SS	9	18.1	1.43 2.5*		6.0		Tough brown & gray silty C[illegible] trace fine sand, moist
2	SS	32				11.0		Dense brown clayey SAND, with [illegible] gravel, moist
3	SS	25	14.0	2.03 2.25*				
4	SS	22	14.4	2.62				Very tough brown silty CLAY, tr[illegible] coarse sand, occasional layers [illegible] cobbles, boulders at 18.0 feet moist
5	SS	21	11.4	2.75*				
6	SS	30	12.5	3.25*		33.5		Firm gray silty fine grai[illegible] saturated
7	SS	12				35.0		Very tough gray silty CLAY, t[illegible] fine sand, moist
8	SS	35	17.7	2.98 2.75*		40.0		Very tough gray silty CLAY, tr[illegible] fractured rock & coarse sand, boulders at 43.5 feet
9	SS	38	12.4			45.0		Very tough gray silty CLAY, trace fi[illegible] sand & small gravel, moist
10	SS	24	13.9	2.86 1.5*				

End of Boring at 50.0 feet

* - Approximate unconfined compre[illegible] strength based on measurement[illegible] a calibrated pocket penetrome[illegible]

Distance Below Surface in Feet

G102

PROJECT H.O.D. DRILL SITE, ANTIOCH, ILLINOIS

CLIENT GEOTECH, INC., 224 N. Broadway, Joliet, Illinois

BORING 25 DATE STARTED 5-8-74 DATE COMPLETED 5-8-74 JOB L-10,

ELEVATIONS

GROUND SURFACE 769.7

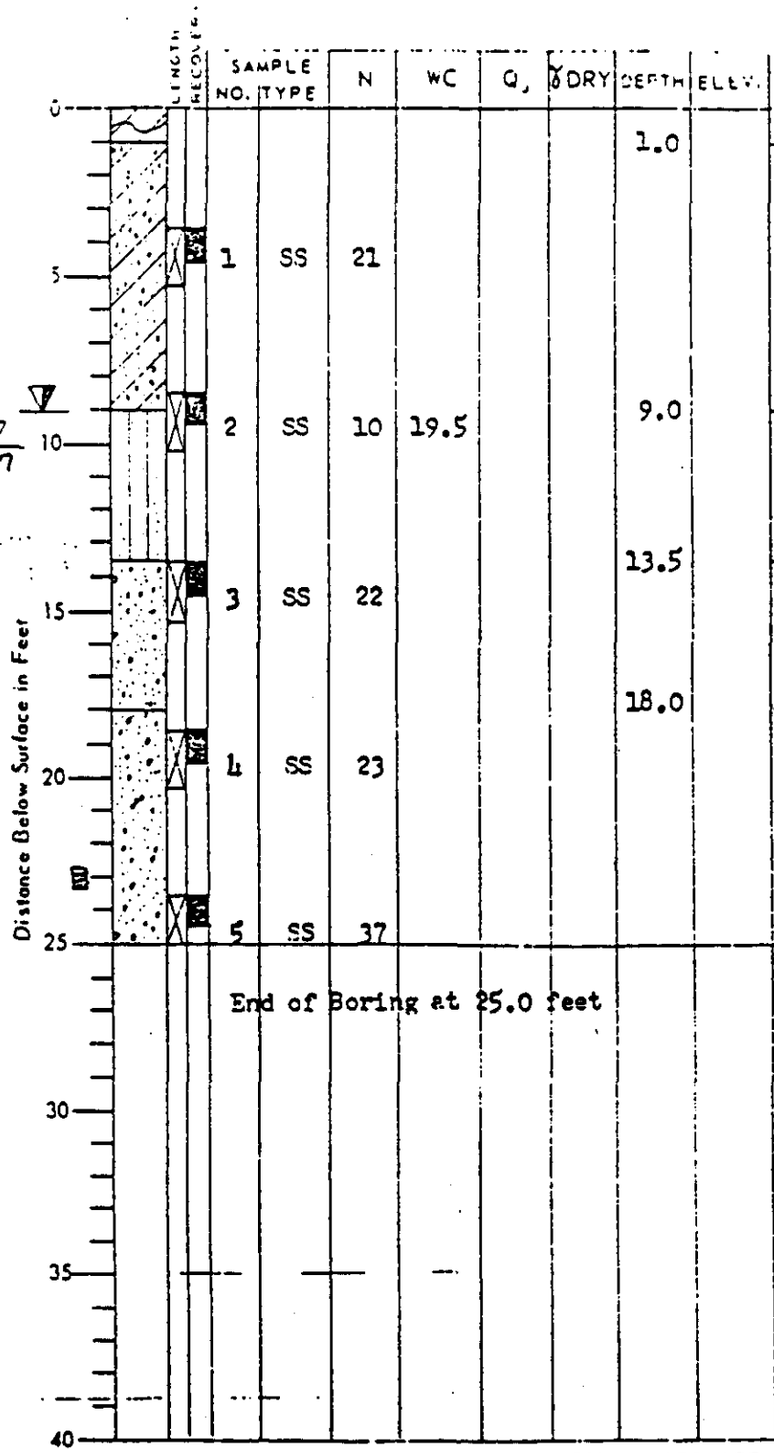
END OF BORING 744.7

WATER TABLE

AT END OF BORING -10.0'

24 HOURS

Water encountered at - 9.0' while drilling



LENGTH RECOVERED	SAMPLE NO.	TYPE	N	WC	Q,	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0		Brown clayey TOPSOIL
	1	SS	21						Firm brown fine to coarse SAND, with small gravel, & trace clay moist
	2	SS	10	19.5			9.0		Firm gray sandy SILT, with litt fine sand, very moist
	3	SS	22				13.5		Firm gray fine to coarse SAND & small GRAVEL, saturated
	4	SS	23				18.0		Dense gray fine to coarse SAND, with small to medium gravel, saturated
	5	SS	37						

End of Boring at 25.0 feet

TESTING SERVICE CORPORATION

DRILL RIG NO. 60

G103

PROJECT H.O.D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT GEOTECH, INC., 224 N. Broadway, Joliet, Illinois

BORING 26 DATE STARTED 5-7-74 DATE COMPLETED 5-7-74 JOB 1-10,

ELEVATIONS

GROUND SURFACE 766.9

END OF BORING 741.9

WATER TABLE

AT END OF BORING -5.0'

24 HOURS -4.0'

Water encountered at -8.0' while drilling

761.9 ▽

SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
						2.0		Black PEAT
1	SS	8	18.1			5.0		FILL - Brown silty CLAY, trace organic & small gravel, moist
2	SS	12						Firm gray fine to coarse SAND, saturated
3	SS	17	24.6			14.0		Tough gray silty CLAY, trace organic & shale, moist
						17.0		
4	SS	24						Firm gray fine to coarse SAND, trace small gravel, saturated
5	SS	24						

End of Boring at 25.0 feet

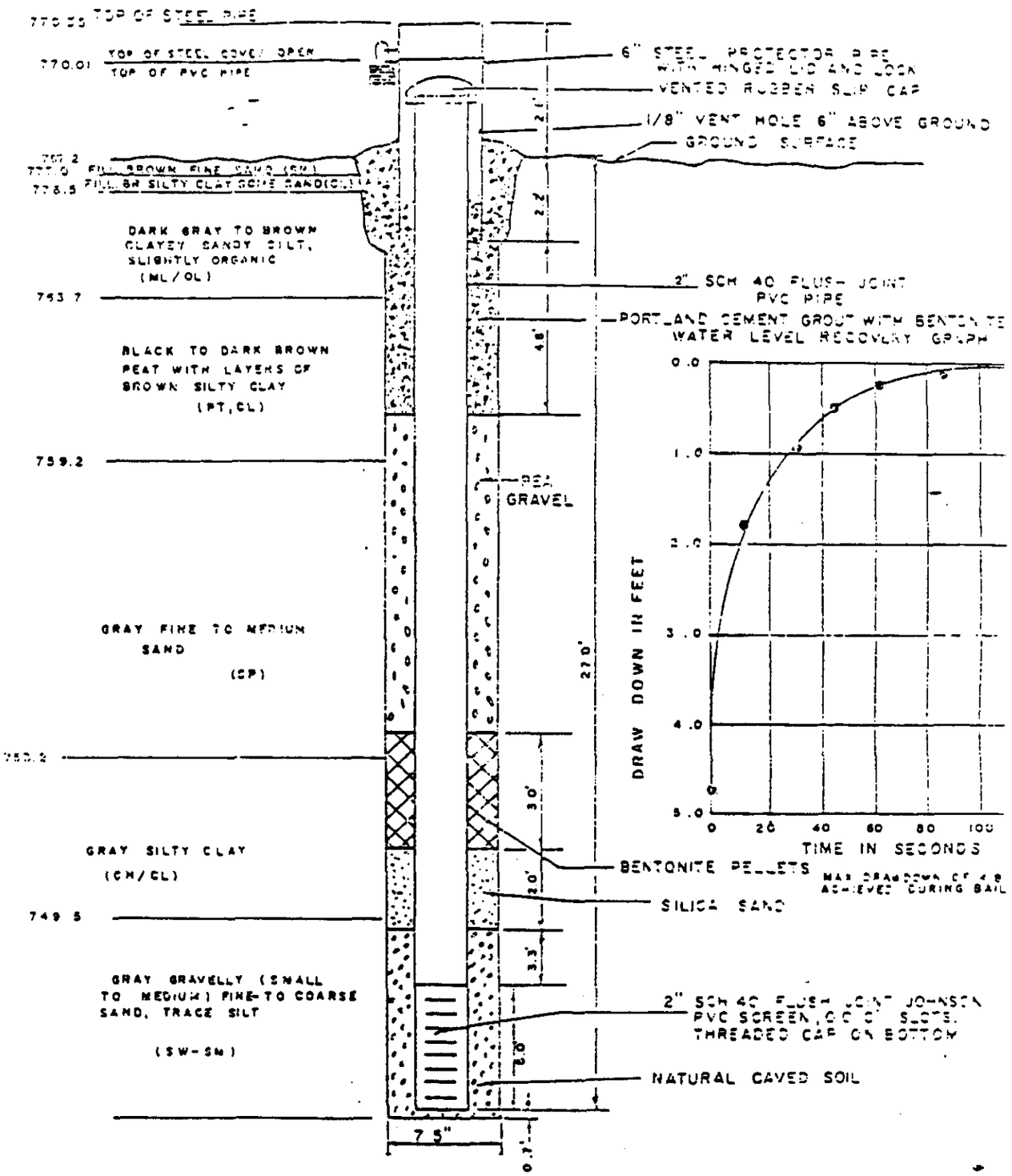
Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

TESTING SERVICE CORPORATION

DRILL RIG NO. 60

GROUNDWATER MONITORING WELL R-100

(NOT TO SCALE)



GROUNDWATER DATA 11-11-1985	
STATIC WATER LEVEL ELEV	: 763.07
TEMPERTURE (°F)	: 51
CONDUCTIVITY (UMHOS)	: 2300
PH	: 7.4

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188
NOVEMBER 18 1985 L-22165

PROJECT H.O.D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 1300 WILLOW ROAD, NORTHBROOK, ILLINOIS 6

BORING 2-103 DATE STARTED 10-31-85 DATE COMPLETED 10-31-85 JOB

ELEVATIONS

GROUND SURFACE 767.2

END OF BORING 740.2

WATER TABLE

AT END OF BORING WELL INSTALLE

24 HOURS

WHILE DRILLING 8'

DISTANCE BELOW SURFACE IN FEET

LENGTH RECOVERY	SAMPLE NO	TYPE	N	WC	Q_u	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
	1	SS	5	45.7			3" / 6"	767.0 / 766.7	FILL: Brown fine SAND (C
	2A/B	SS	5	22.9 / 58.1			3.5	763.7	FILL: Brown very silty CL some sand, trace cr (CL)
	3A/B	SS	9	17.6 / 30.4					Loose dark gray to brown sandy SILT, slightly orga occasional sand laminatio very moist (ML/OL)
	4	SS	6	23.5					
	5	SS	15				8.0	759.2	Black to dark brown PEAT w layers of brown silty CLA very moist to wet (Pt, CL
	6	SS	26						Firm gray fine to medium wet; 2" silt seam encount at 8' (SP)
	7	SS	12						
	8	SS	2	53.8			14.0	753.2	Very soft gray silty CLAY 3" zone of very tough silt clay encountered at 17.5' (CH/CL)
	9A/B	SS	11	26.2 / --			17.7	749.5	
	10	SS	22						Firm to dense gray gravel (small to medium) fine to coarse SAND, trace si wet (SW-SM)
	11	SS	33						
	12	SS	36						
	13	SS	27						
	14	SS	14/6"						

End of Boring at - 27.0 Feet

MONITORING WELL INSTALLATION DATA (Also see As-Built Sketch)

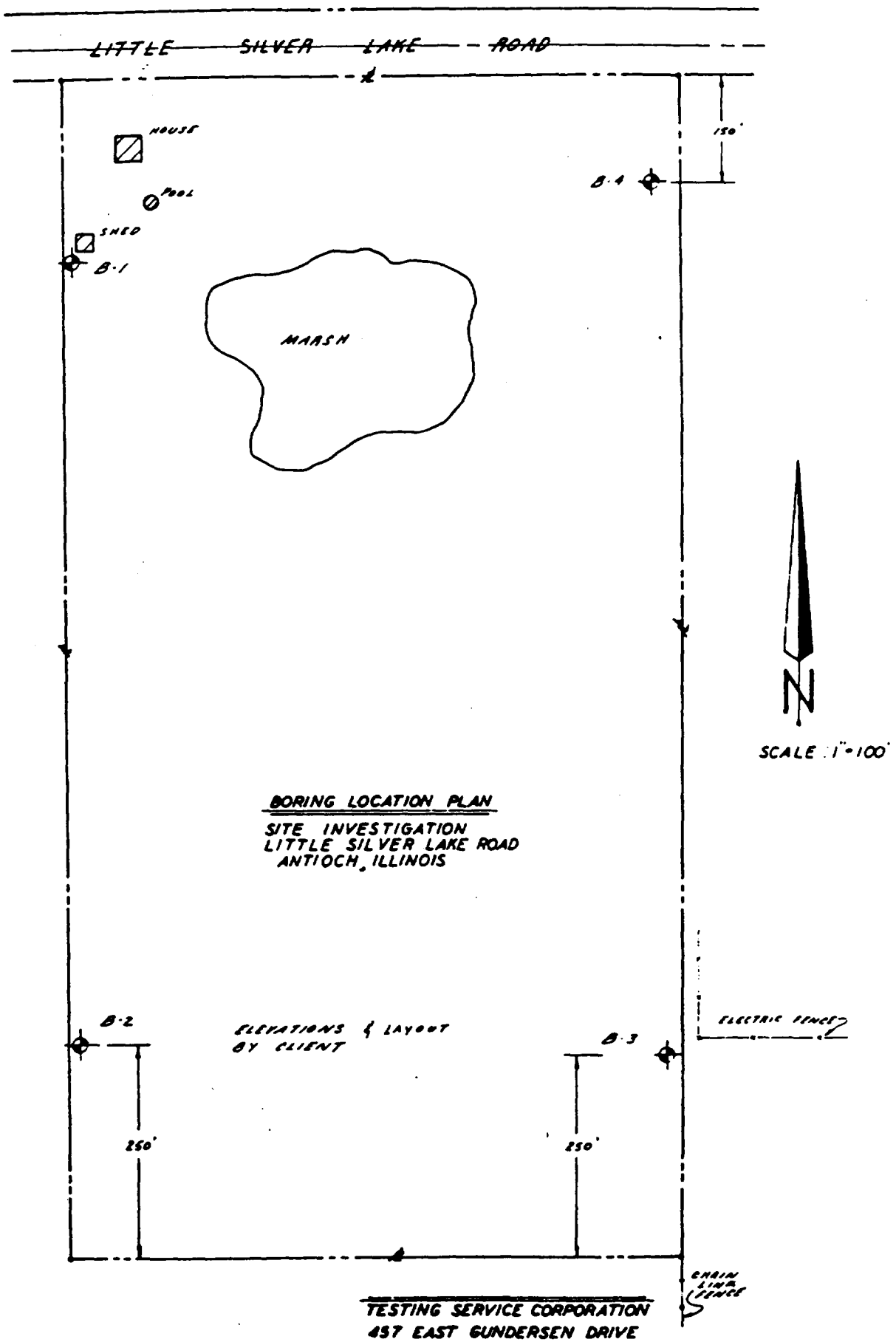
1). Bore hole made by the hollowstem auger method
2). Bottom of 5.0 Johnson screen: 25.3'
3). Natural granular cave from bottom of hole to: 18'
4). Silica sand from: 18' - 16'
5). Bentonite pellets from: 16' - 13'
6). Pea gravel from: 13' - 7'
7). Concrete with bentonite from: 7' - 0'
8). 6" Steel protector pipe concreted into place over riser pipe

TESTING SERVICE CORPORATION

DRILL RIG NO. 91

C4

TESTING SERVICE CORPORATION, 1980
(TSC 1001-TSC 1004)



BORING LOCATION PLAN

SITE INVESTIGATION
LITTLE SILVER LAKE ROAD
ANTIOCH, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
WHEATON, ILLINOIS 60187
FEBRUARY 4, 1980 J-17,252

PROJECT H. O. D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1 DATE STARTED 2-1-80 DATE COMPLETED 2-1-80 JOB 17,352

ELEVATIONS

GROUND SURFACE

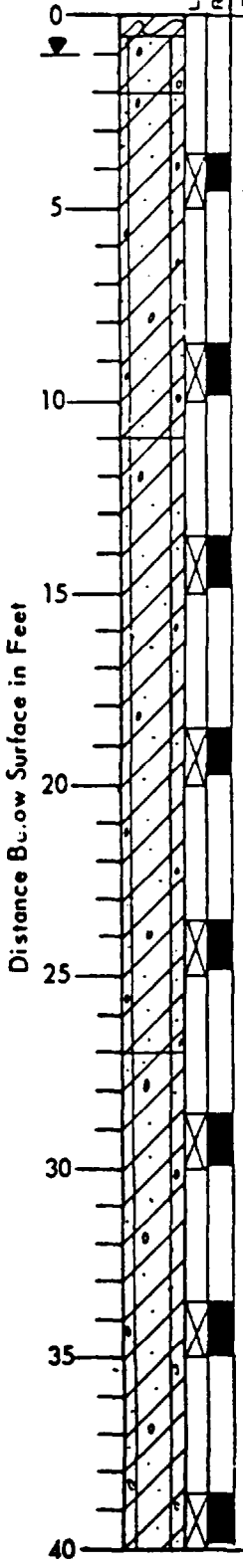
END OF BORING

WATER TABLE

AT END OF BORING "DRY"

24 HOURS - 1.0'

While Drilling "DRY"



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.5		Black clayey TOPSOIL
							2.0		Brown silty CLAY, trace sand and gravel, moist (CL)
	1	SS	10	20.2					Hard brown silty CLAY, little sand and gravel, moist (CL)
	2	SS	24	15.7	7.14 4.5+*				
							11.0		
	3	SS	20	15.2	5.73 4.5+*				Hard to very tough gray silty CLAY, trace to little sand and gravel, moist (CL)
	4	SS	18	25.0	2.5*				
	5	SS	27	18.1	6.83 4.5+*				
							27.0		
	6	SS	16	22.1	1.65 2.0*				Sample 6: Ion Exchange 10.2 me./100 gms. soil Tough to very tough gray silty CLAY, trace to little sand and gravel, moist (CL)
	7	SS	12	21.1	2.32 2.25*				
	8	SS	11	20.6	2.32 2.0*				

*-Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer.

TESTING SERVICE CORPORATION

DRILL RIG NO. 53

BORING LOG CONTINUED

PROJECT H. O. D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1 DATE STARTED 2-1-80 DATE COMPLETED 2-1-80 JOB 17,352

ELEVATIONS

GROUND SURFACE

END OF BORING

WATER TABLE

AT END OF BORING "DRY"

24 HOURS - 1.0'

While Drilling "DRY"

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										
45		9	SS	14	21.0	2.14* 2.0*				Very tough gray silty CLAY, trace to little sand and gravel, moist (CI
50		10	SS	13	20.6	2.62* 2.5*		51.0		
55		11	SS	19	20.6	2.32* 2.5*				
60		12	SS	19	21.4	2.01* 1.75*				Sample 12: LL = 35 PI = 18 Very tough to tough gray si CLAY, trace to little sand and gravel, a few silt seams, moist (C
65		13	SS	26	23.6	1.25*				
70		14	SS	18	17.7	2.56* 2.25*				
75		15	SS	33	18.2	2.44* 2.0*				Sample 15: 9% SAND and GRAVEL 57% SILT 34% CLAY
80		16	SS	32	15.2	3.66* 2.5*				*-Approximate unconfined compress. strength based on measurements w a calibrated pocket penetrometer

End of Boring at 80.0 feet

TESTING SERVICE CORPORATION

PROJECT H. O. D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 2 DATE STARTED 2-4-80 DATE COMPLETED 2-4-80 JOB 17,352

ELEVATIONS

GROUND SURFACE

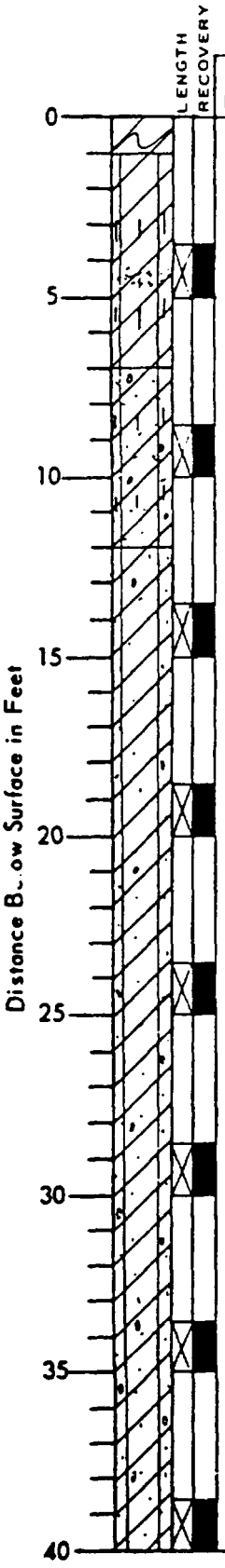
END OF BORING

WATER TABLE

AT END OF BORING -54.0'

24 HOURS

While Drilling -70.0'



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0		Dark brown clayey TOPSOIL
	1	SS	21	23.9					Brown and gray silty CLAY, occasional seams of silt and fine sand, moist (CL)
							7.0		
	2	SS	25	12.8	4.5+*				Hard brown silty CLAY, some fine sand, a few silt seams, trace gravel, moist (CL)
							12.0		
	3	SS	18	18.7	5.49 4.5+*				Sample 3: LL = 35 PI = 16
	4	SS	10	22.0	1.95 2.0*				Sample 4: Remolded K = 9.8 x 10^{-8} cm./sec. Water Content = 22.0% Dry Unit Weight = 103.0 pcf
									Hard to tough gray silty CLAY, trace to little sand and gravel, moist (CL)
	5	SS	10	22.2	2.07 1.75*				Sample 5: 4% SAND and GRAVEL 51% SILT 45% CLAY
	6	SS	7	23.0	2.01 1.75*				
	7	SS	10	21.7	1.89 1.5*				Sample 7: LL = 34 PI = 16
	8	SS	9	23.8	1.59 1.5*				

*-Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer.

TESTING SERVICE CORPORATION

DRILL RIG NO. 53

BORING LOG CONTINUED

PROJECT H. O. D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 2 DATE STARTED 2-4-80 DATE COMPLETED 2-4-80 JOB 17,352

ELEVATIONS

GROUND SURFACE

END OF BORING

WATER TABLE

AT END OF BORING -54.0'

24 HOURS

While Drilling -70.0'

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										
45		9	SS	13	23.8	1.95* 2.0*				Sample 9: K = 4.3 x 10^{-8} cm./se
										Tough to very tough gray silty CLAY, trace to little sand and gravel, moist (CL)
50		10	SS	11	19.3	2.32* 2.0*				
55		11	SS	14	18.4	1.65* 1.75*				
								56.0		
60		12	SS	19	15.5	2.50* 2.5*				Very tough gray silty CLAY, trace to little sand and gravel; silt layers in Sample 12, moist (CL)
65		13	SS	16	17.3	2.87* 2.75*				Sample 13: 14% SAND and GRAVEL 53% SILT 33% CLAY
70		14	SS	17	17.8	3.23* 3.0*				
								70.0		Firm brown fine to medium SAND, wet (SP)
75		15	SS	21						*-Approximate unconfined compressio- strength based on measurements wi a calibrated pocket penetrometer.
								75.5		Very tough gray silty CLAY, trace to little sand and gravel, moist (CL)
80		16	SS	31	17.7	2.14* 2.0*				

End of Boring at 80.0 feet

TESTING SERVICE CORPORATION

PROJECT H. O. D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 3 DATE STARTED 2-5-80 DATE COMPLETED 2-5-80 JOB 17,352

ELEVATIONS

GROUND SURFACE

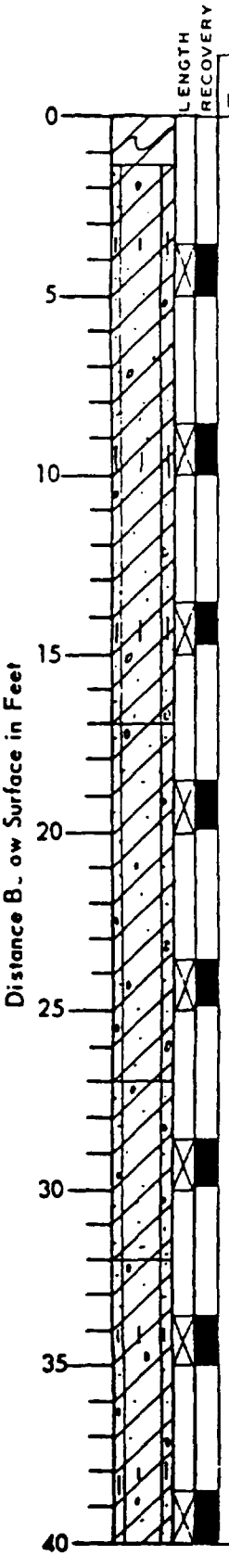
END OF BORING

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

While Drilling "DRY"



SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
						1.3		Dark brown clayey TOPSOIL
1	SS	17	27.0					Very tough to tough brown and gray silty CLAY, trace to little sand and gravel, occasional silt seams, moist (CL)
2	SS	20	18.7	3.5*				
3	SS	8	20.5	1.53* 1.25*				
						17.0		Sample 4: 15% SAND and GRAVEL 44% SILT 39% CLAY
4	SS	13	17.2	2.75*				Very tough gray silty CLAY, trace to little sand and gravel, moist (CL)
5	SS	14	19.8	2.14* 2.25*				Sample 5: 10% SAND and GRAVEL 52% SILT 38% CLAY LL = 34 PI = 19
						27.0		Tough gray very silty CLAY with layers of silt and silty sand, trace gravel, moist (CL and SM/ML)
6	SS	21	20.9	1.25*				
						32.0		Very tough to tough gray silty CLAY, trace to little sand and gravel, occasional silt and sand seams, moist (CL)
7	SS	16		2.26* 2.25*				
8	SS	18	19.1	2.20* 1.75*				

*-Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer.

TESTING SERVICE CORPORATION

DRILL RIG NO. 53

BORING LOG CONTINUED

PROJECT H. O. D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 3 DATE STARTED 2-5-80 DATE COMPLETED 2-5-80 JOB 17,352

ELEVATIONS

GROUND SURFACE

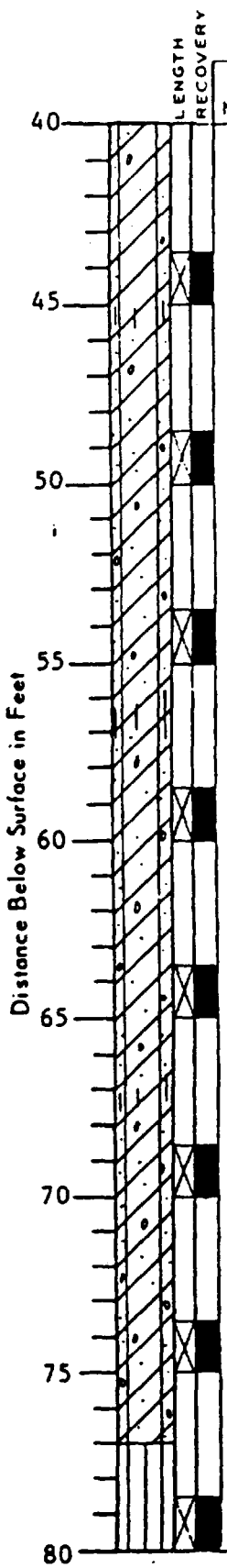
END OF BORING

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

While Drilling "DRY"



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
	9	SS	19	19.6	2.01 1.75*				
	10	SS	18	19.8	2.56 2.0*				Sample 10: LL = 31, PI = 14
	11	SS	21	20.4	2.56 2.75*				Sample 11: K = 4.0 x 10^{-8} cm./se
	12	SS	25	19.1	2.0*				Tough to very tough gray silty CLAY, trace to little sand and gravel, occasional silt and sand seams; silt layers in Sample 12, moist (CL)
	13	SS	25	17.8	2.20 2.5*				Sample 13: 12% SAND and GRAVEL, 53% SILT, 35% CLAY
	14	SS	31	18.9	2.62 2.5*				
	15	SS	29	17.8	2.38 2.25*				*-Approximate unconfined compressio strength based on measurements wit a calibrated pocket penetrometer.
							77.0		Very dense gray SILT, very moist (ML)
	16	SS	59						

End of Boring at 80.0 feet

TESTING SERVICE CORPORATION

PROJECT H. O. D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 4 DATE STARTED 2-1-80 DATE COMPLETED 2-1-80 JOB 17,352

ELEVATIONS

GROUND SURFACE

END OF BORING

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

While Drilling "DRY"

SHEET 1 of 2

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
0								0.5		Black clayey TOPSOIL
										Brown silty CLAY, trace sand and gravel, moist (CL)
5		1	SS	31	33.3					
								7.0		Sample 2: Remolded $K = 1.2 \times 10^{-7}$ cm./sec. Water Content = 14.2% Dry Unit Weight = 121.9 pcf
10		2	SS	32	14.2	5.33* 4.5+				Hard brown silty CLAY, trace to little sand and gravel, occasional sand seams, moist (CL)
								12.5		
15		3	SS	16	20.4	4.64* 4.0				Hard to very tough gray silty CLAY, trace to little sand and gravel, moist (CL)
20		4	SS	20	12.8	3.17* 3.0				Sample 4: Ion Exchange 4.8 me./100 gms. soil LL = 34 PI = 17
								22.0		
25		5	SS	23	9.3					Firm gray clayey, silty fine to coarse SAND, little gravel, moist (SC)
								27.0		
30		6	SS	27**	12.3					Firm gray clayey SILT, some gravel and sand; boulder at 31 feet, moist (ML)
								33.0		
35		7	SS	32	12.1	4.88* 4.5+				Sample 7: 10% SAND and GRAVEL 54% SILT 36% CLAY
40		8	SS	19	17.5	3.72* 3.5				Hard to very tough gray silty CLAY, trace to little sand and gravel, occasional silt seams, moist (CL) Sample 8: $K = 5.3 \times 10^{-8}$ cm./sec.

** - Driving on piece of grave

DRILL RIG NO. 53

TESTING SERVICE

BORING LOG

* - Approximate unconfined compression strength based on measurements with

PROJECT H. O. D. LANDFILL SITE, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 4 DATE STARTED 2-1-80 DATE COMPLETED 2-1-80 JOB 17,3

ELEVATIONS

GROUND SURFACE

END OF BORING

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

While Drilling "DRY"

SHEET 2 of

Distance Below Surface in Feet

LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40									
45	9	SS	58**	15.2					
50	10	SS	30	13.9	4.5+*				
55	11	SS	41**	17.6	4.88 4.25*				Hard gray silty CLAY, trace to little sand and gravel, moist (CI
60	12	SS	41**	17.3					
65	13	SS	28	18.2	4.39 4.25*				Sample 13: 6% SAND and GRAVEL 50% SILT 44% CLAY
70	14	SS	29	18.3	5.25 4.5+*				
75	15	SS	28	17.8	4.70 4.0*				
80	16	SS	31	17.4	4.39 4.5+*				*-Approximate unconfined compressi strength based on measurements a calibrated pocket penetrometer

End of Boring at 80.0 feet

TESTING SERVICE CORPORATION

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TESTING SERVICE CORPORATION, 1981
(TSC 201-TSC 210)
(TSC 1101-TSC 1210

PROJECT H.O.D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 201 DATE STARTED 12-2-81 DATE COMPLETED 12-2-81 JOB 18,617

ELEVATIONS

GROUND SURFACE 786.9

END OF BORING 706.9±

WATER TABLE

AT END OF BORING "DRY"

24 HOURS "DRY"

While Drilling "DRY"

SHEET 1 of 2

Distance Below Surface in Feet

SAMPLE NO.	TYPE	N (Blows, bearing strength)	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
						0.8	786.1	Dark brown clayey TOPSOIL
1	SS	52	16.0	4.5+*				Hard brown to brown and gray silty CLAY, trace sand and gravel, moist (CL)
2	SS	38	16.9	4.5+*				
						12.0	774.9	
3	SS	22	17.8	3.5*				Very tough gray silty CLAY, trace sand and gravel, moist; small silt pocket in Sample 4 (CL)
4	SS	18	16.5	2.2*				
5	SS	14	19.6	2.2*				
6	SS	12	20.7	2.5*				
7	SS	15	21.0	2.0*				
8	SS	16	17.8	2.0*				

Boring Log Continued

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 201 (Cont'd.) DATE STARTED 12-2-81 DATE COMPLETED 12-2-81 JOB 18,6

ELEVATIONS

GROUND SURFACE 786.9

END OF BORING 706.9

WATER TABLE

AT END OF BORING "DRY"

24 HOURS "DRY"

While Drilling "DRY"

SHEET 2 o

Distance Below Surface in Feet: 40, 45, 50, 55, 60, 65, 70, 75, 80

LENGTH	RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
		9	SS	20	19.2	1.5*				
		10	SS	21	19.6	2.7*				Tough to very tough gray silt CLAY, trace sand and gravel, moist; small silt pockets in Sample 16 (C
		11	SS	23	20.8	2.5*				
		12	SS	25	16.7	3.0*				Sample 12: 5% Sand LL = 30 55% Silt PI = 15 40% Clay
		13	SS	31	16.1	3.0*				
		14	SS	25	15.9	3.0*				
		15	SS	25	16.2	3.0*				
		16	SS	30	14.6	3.0*				

*-Approximate unconfined compre... strength based on measurements a calibrated pocket penetromet

End of Boring at 80.0 feet

TESTING SERVICE CORPORATION

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 202 DATE STARTED 12-2-81 DATE COMPLETED 12-3-81 JOB ** 18,617

ELEVATIONS

GROUND SURFACE 790.8

END OF BORING 710.8

** - Driller's Note: No water bearing material observed below 22.0'.

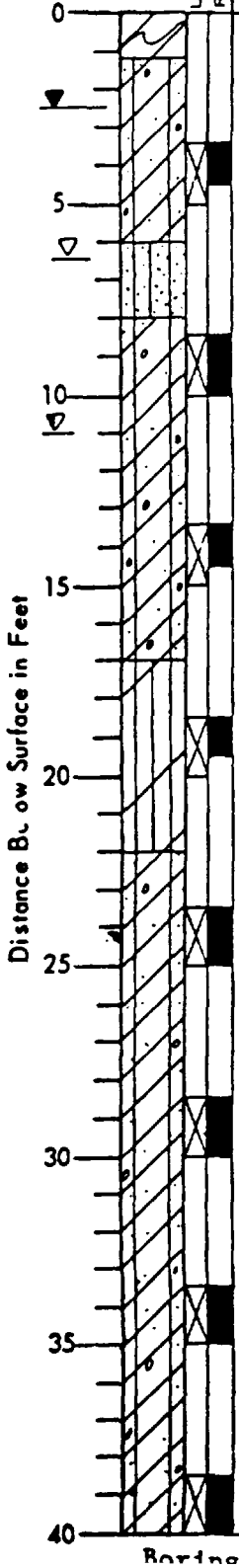
WATER TABLE

AT END OF BORING 6.5'

24 HOURS 2.5'

While Drilling 11.0'

SHEET 1 of 2



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.2	789.6	Dark brown clayey TOPSOIL
	1	SS	50	14.3	4.5+*				Hard brown silty CLAY, trace sand and gravel, moist (CL)
							6.0	784.8	Brown sandy SILT, wet (ML)
							8.0	782.8	
	2	SS	32	18.9	4.5+*				Hard to very tough gray silty CLAY, trace sand and gravel, moist (CL)
	3	SS	50	22.1	2.5*				
							17.0	773.8	
	4	SS	23						Firm gray SILT, trace clay, very moist (ML)
							22.0	768.8	
	5	SS	18	21.8	2.0*				Very tough to tough gray silty CLAY, trace sand and gravel, moist (CL)
	6	SS	14	21.3	1.7*				
	7	SS	15	20.5	1.7*				
	8	SS	15	21.4	1.5*				

Boring Log Continued

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 202 (Cont'd.) DATE STARTED 12-2-81 DATE COMPLETED 12-3-81 JOB 18,6 **

ELEVATIONS

GROUND SURFACE 790.8

END OF BORING 710.8

** - Driller's Note: No water bearing material observed below 22.0'.

WATER TABLE

AT END OF BORING 6.5'

24 HOURS 2.5'

While Drilling 11.0'

Distance Below Surface in Feet

SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
9	SS	16	22.5	1.5*				
10	SS	18	22.0	1.5*				Tough gray silty CLAY, trace sand and gravel, moist; thin sand seams in Sample 11 (C
11	SS	19	22.1	1.2*				
12	SS	17	18.1	1.7*				Sample 12: LL = 29, PI = 14; 3% Gravel, 5% Sand, 51% Silt, 41% Clay
						62.0	728.8	
13	SS	27	17.4	2.0*				Very tough gray silty CLAY, trace to little sand and grav moist (C)
14	SS	30	18.0	2.2*				Sample 14: LL = 30, PI = 12; 4% Sand, 53% Silt, 43% Clay
15	SS	28	17.2	2.2*				
16	SS	33	18.0	2.2*				

*-Approximate unconfined compressi strength based on measurements a calibrated pocket penetromete

End of Boring at 80.0 feet

TESTING SERVICE CORPORATION

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 203 DATE STARTED 11-30-81 DATE COMPLETED 11-30-81 JOB 18,617

ELEVATIONS

GROUND SURFACE 798.3

END OF BORING 718.3

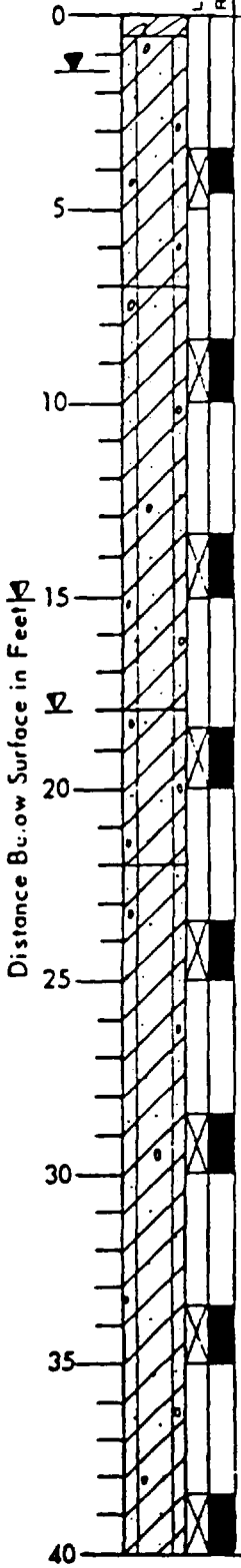
WATER TABLE **

AT END OF BORING "DRY"

24 HOURS 1.5'

While Drilling 15.0'

** - Driller's Note: Seepage from 15' to 18' zone.



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.5	797.8	Dark brown clayey TOPSOIL
	1	SS	41	18.8	4.5+*				Hard brown silty CLAY, trace sand and gravel, moist (CL)
							7.0	791.3	
	2	SS	42	15.1	3.7*				Very tough to hard brown silty CLAY, little sand, trace gravel, moist; a few wet silty sand seams (CL)
	3	SS	41	17.7	4.5*				Hard brown and gray silty CLAY, trace sand and gravel, moist (CL)
							18.0	780.3	Sample 4: 4% Sand; LL = 39, 50% Silt; PI = 20, 46% Clay; K (remolded) = 2.6×10^{-8} cm/sec.
	4	SS	44	19.2	4.5+*	110.5			
							22.0	776.3	
	5	SS	34	20.9	2.5*				Very tough gray silty CLAY, trace sand and gravel, moist (CL)
	6	SS	35	19.6	2.5*				
	7	SS	28	20.6	2.2*				
	8	SS	29	21.1	2.0*				

Boring Log Continued

TESTING SERVICE CORPORATION

DRILL RIG NO. 53

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 203 (Cont'd.) DATE STARTED 11-30-81 DATE COMPLETED 11-30-81 JOB 18,617

ELEVATIONS

GROUND SURFACE 798.3

END OF BORING 718.3

** - Driller's Note: Seepage from 15' to 18' zone..

WATER TABLE **

AT END OF BORING "DRY"

24 HOURS 1.5'

While Drilling 15.0'

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										
45		9	SS	24	19.9	2.5*				
50		10	SS	26	19.7	1.7*				Very tough to tough gray silty CLAY, trace sand and gravel, moist (CL)
55		11	SS	27	17.5	1.5*				
60		12	SS	28	20.5	2.2*				Sample 12: 6% Sand; LL = 35, 50% Silt; PI = 17, 44% Clay; K = 1.2×10^{-8} cm/sec.; Cation Exchange = 5.6 me/10 gms. soil
65		13	SS	27	17.8	2.0*				
70		14	SS	27	21.1	1.5*				
75		15	SS	*** 73/9"	16.6	-		75.0	723.3	Dense gray clayey SILT, trace sand and gravel, moist (ML)
80		16	SS	46	18.8	-				

* Approximate unconfined compres strength based on measurements a calibrated pocket penetrometer

End of Boring at 80.0 feet

TESTING SERVICE CORPORATION

DRILL RIG NO. 53

*** - Driving on piece of gravel.

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 204 DATE STARTED 12-3-81 DATE COMPLETED 12-3-81 JOB 18,617

ELEVATIONS

GROUND SURFACE 769.0

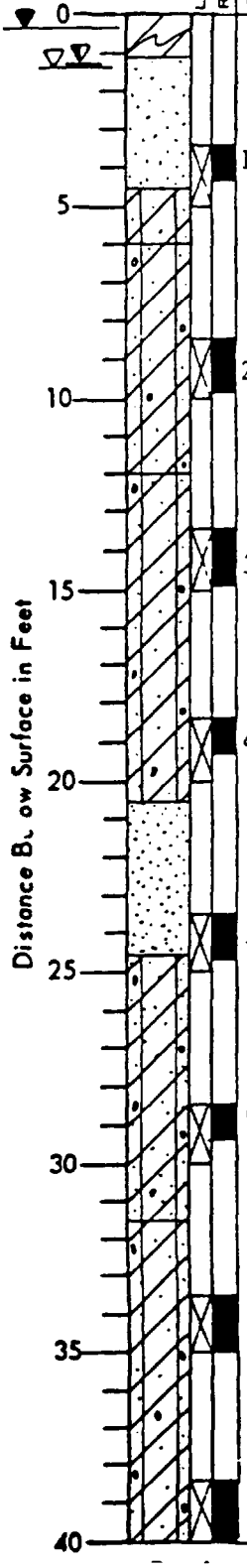
END OF BORING 689.0

WATER TABLE

AT END OF BORING 1.2'

24 HOURS 0.2'

While Drilling 1.2'



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.2	767.8	Black clayey TOPSOIL
	1a b	SS	4	- 25.7	- 0.5*		4.5	764.5	Very loose brown fine to medium SAND, saturated (SP)
							6.0	763.0	Soft brown silty CLAY, trace sand, moist (CL)
	2	SS	33	16.4	4.5*				Hard brown and gray silty CLAY, trace sand and gravel, moist (CL)
							12.0	757.0	
	3	SS	28	14.7	3.5*				Very tough to tough gray silty CLAY, trace sand and gravel, moist (CL)
	4	SS	17	19.9	1.7*				
							20.5	748.5	Firm brown fine to medium SAND, saturated (SP)
	5a b	SS	17	-			24.5	744.5	
	6	SS	36	16.7					Gray silty CLAY with considerable sand and gravel, occasional cobbles, moist (CL)
							31.5	737.5	
	7	SS	27	17.0	2.0*				Very tough gray silty CLAY, trace sand and gravel, moist (CL)
	8	SS	25	17.2	2.0*				

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 605?

BORING 204 (Cont'd.) DATE STARTED 12-3-81 DATE COMPLETED 12-3-81 JOB 18,6

ELEVATIONS		WATER TABLE	
GROUND SURFACE	769.0	AT END OF BORING	1.2'
END OF BORING	689.0	24 HOURS	0.2'
		While Drilling	1.2'

SHEET 2 of

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										
45		9	SS	24	16.8	2.0*				
50		10	SS	25	17.8	1.2*				
55		11	SS	27	17.3	2.2*				Very tough to tough gray silty CLAY, trace sand and gravel, moist; silt pocket in Sample 1? (CL
60		12	SS	25	16.8	2.0*				
65		13	SS	27	16.9	2.2*				Sample 13: 4% Sand LL = 29 57% Silt PI = 13 39% Clay
70		14	SS	23	17.3	1.0*				
75		15	SS	24	16.9	1.2*				
80		16	SS	26	17.2	1.5*				

*-Approximate unconfined compressi strength based on measurements w. a calibrated pocket penetrometer.

End of Boring at 80.0 feet

TESTING SERVICE CORPORATION

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 205 DATE STARTED 12-8-81 DATE COMPLETED 12-8-81 JOB 18,617

ELEVATIONS

GROUND SURFACE 774.7

END OF BORING 694.7

WATER TABLE

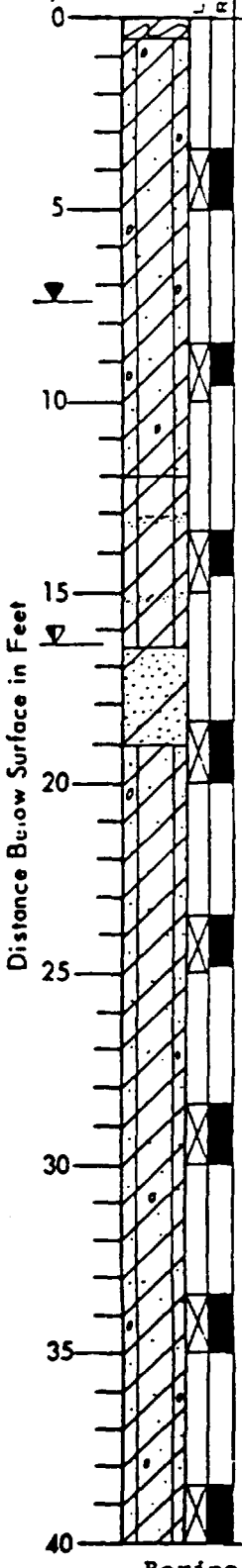
AT END OF BORING **

24 HOURS 7.5'

While Drilling 16.5'

** - Driller's Note: Dry before pulling H.S. auger. Water started seeping in slowly after removal of H.S. auger.

SHEET 1 of 2



LENGTH	RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γ_d DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
								0.5	774.2	Dark brown clayey TOPSOIL
		1	SS	33	14.7	4.5+*				Hard brown silty CLAY, trace to little sand and gravel, moist (CL)
		2	SS	29	14.6	4.5*				
								12.0	762.7	
		3	SS	13	24.0	1.5*				Tough brown silty CLAY, moist; a few wet sand seams (CL)
								16.5	758.2	
		4a	SS	8	–	–				Loose brown fine to medium SAND, trace clay, saturated (SP)
		4b			18.5	1.5*	111.8	19.0	755.7	Sample 4B: 1% Gravel; LL = 26, 6% Sand; PI = 11, 58% Silt, 35% Clay; K (remolded) = 1.4×10^{-8} cm/sec.
		5	SS	17	19.5	1.2*				
										Tough gray silty CLAY, trace sand and gravel, moist (CL)
		6	SS	14	19.7	1.0*				
		7	SS	14	20.9	1.7*				
		8	SS	16	18.8	1.5*				

Boring Log Continued

TESTING SERVICE CORPORATION

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 605

BORING 205 (Cont'd.) DATE STARTED 12-8-81 DATE COMPLETED 12-8-81 JOB 18.

ELEVATIONS

GROUND SURFACE 774.7

END OF BORING 694.7

WATER TABLE

AT END OF BORING **

24 HOURS 7.5'

While Drilling 16.5'

** - Driller's Note: Dry before pulling H.S. auger. Water started seeping in slowly after removal of H.S. auger.

SHEET 2 of

Distance Below Surface in Feet	LENGTH	RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	∅ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40											
45			9	SS	20	18.5	1.7*				
50			10	SS	20	18.1	1.5*				
55			11	SS	21	18.5	1.5*				Tough to very tough gray silt, CLAY, trace sand and gravel, moist; silt seams in Sample 1 (C
60			12	SS	20	16.4	2.2*				
65			13	SS	20	17.5	1.7*				Sample 13: 5% Sand LL = 27 60% Silt PI = 11 35% Clay K = 4.1×10^{-8} cm/sec. Cation Exchange = 8.0 me/100 gms. so
70			14	SS	18	17.8	2.0*				
75			15	SS	19	18.0	2.2*				*-Approximate unconfined compr strength based on measurement a calibrated pocket penetromete
80			16	SS	25	18.1	2.0*				

End of Boring at 80.0 feet

TESTING SERVICE CORPORATION

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 206 DATE STARTED 12-4-81 DATE COMPLETED 12-4-81 JOB 18,617

ELEVATIONS

GROUND SURFACE 775.8

END OF BORING 695.8

WATER TABLE

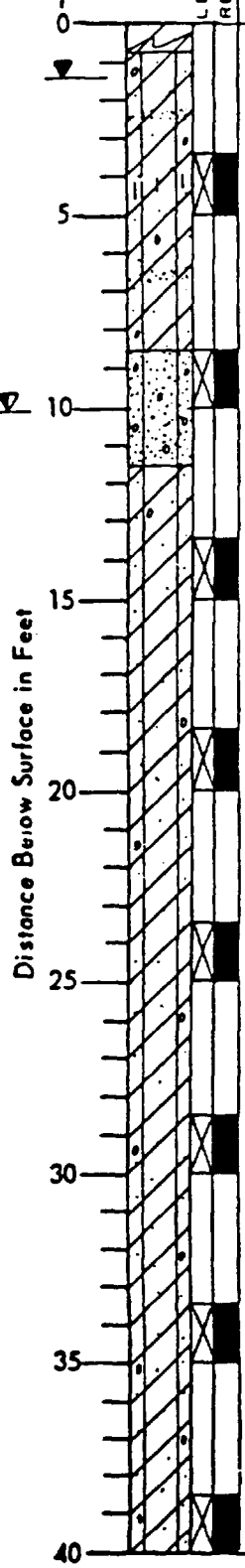
AT END OF BORING **

24 HOURS 1.5'

While Drilling 10.0'

** - Driller's Note: Dry before pulling H.S. auger, but water could be heard pouring into hole after removal of H.S. auger.

SHEET 1 of 2



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.8	775.0	Dark brown clayey TOPSOIL
	1	SS	25	16.6	4.0*				Hard brown silty CLAY, trace sand and gravel, occasional sand and silt seams, moist (CL)
	2	SS	43				8.5	767.3	Dense brown silty fine to medium SAND, trace gravel, saturated (SM)
							11.5	764.3	
	3	SS	23	17.5	2.2*				Very tough to tough gray silty CLAY, trace sand and gravel, occasional silt seams, moist (CL)
	4	SS	23	17.8	1.5*				
	5	SS	18	17.9	1.5*				
	6	SS	17	19.2	1.5*				
	7	SS	15	16.7	1.5*				Sample 7: Cation Exchange = 6.8 me/100 gms. soil
	8	SS	15	18.6	1.5*				

Boring Log Continued

TESTING SERVICE CORPORATION

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 6052

BORING 206 (Cont'd.) DATE STARTED 12-4-81 DATE COMPLETED 12-4-81 JOB 18.

ELEVATIONS

GROUND SURFACE 775.8

END OF BORING 695.8

WATER TABLE

AT END OF BORING **

24 HOURS 1.5'

While Drilling 10.0'

**- Driller's Note: Dry before pulling H.S. auger, but water could be heard pouring into hole after removal of H.S. auger.

Distance Below Surface in Feet: 40, 45, 50, 55, 60, 65, 70, 75, 80

SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
9	SS	15	18.8	1.2*				
10	SS	15	18.4	1.7*				Tough to very tough gray silty CLAY, trace sand and gravel, occasional silt seams, moist (CI
11	SS	20	18.5	1.2*				
12	SS	19	16.4	2.2*				
13	SS	21	16.9	2.0*				Sample 13: LL = 23, PI = 9; 7% Sand, 63% Silt, 30% Clay
						67.0	708.8	Very tough gray very silty CLA with layers of silt, trace sar and gravel, moist (CL-M
14	SS	25	16.2	2.2*				
						71.0	704.8	
15	SS	19	26.1	1.5*				Sample 15: LL = 46, PI = 25; 1% Gravel, 3% Sand, 27% Silt, 69% Clay. Tough gray silty CLAY, trace sand and gravel, moist (CL
16	SS	20	19.1	1.7*				

*-Approximate unconfined compres strength based on measurements a calibrated pocket penetromete

End of Boring at 80.0 feet

TESTING SERVICE CORPORATION

DRILL RIG NO. 53

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 207 DATE STARTED 12-7-81 DATE COMPLETED 12-7-81 JOB 18,617

ELEVATIONS

GROUND SURFACE 763.1

END OF BORING 683.1

WATER TABLE **

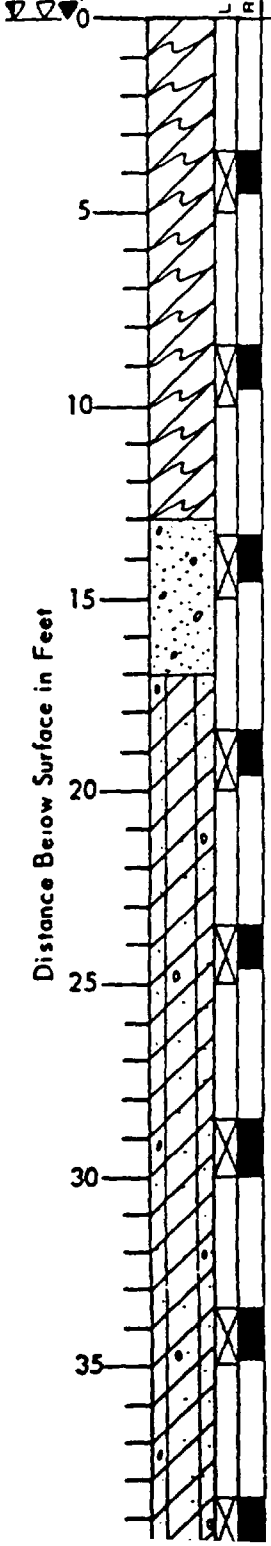
AT END OF BORING At Surface

24 HOURS At Surface

While Drilling At Surface

** - Driller's Note: Main water bearing layer at 13'-17'. Dry inside H.S. at completion of sampling.

SHEET 1 of 2



LENGTH	RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
		1	SS	2	54.1					Black highly organic CLAY, very moist (OH)
		2	SS	2	94.1					
								13.0	750.1	
		3	SS	7						Loose gray fine to medium SAND, trace gravel, saturated (SP)
								17.0	746.1	
		4	SS	15	17.7	2.7*				Very tough to tough gray silty CLAY, trace to little sand and gravel, moist (CL)
		5	SS	23	18.2	2.0*				
		6	SS	26	16.8	1.7*				
		7	SS	14	17.2	1.7*				
		8	SS	18	17.6	1.7*				

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 605

BORING 207 (Cont'd.) DATE STARTED 12-7-81 DATE COMPLETED 12-7-81 JOB 18

ELEVATIONS

GROUND SURFACE 763.1

END OF BORING 683.1

WATER TABLE **

AT END OF BORING At Surface

24 HOURS At Surface

While Drilling At Surface

** - Driller's Note: Main water bearing layer at 13'-17'. Dry inside H.S. at completion of sampling.

Distance Below Surface in Feet

SAMPLE NO.	TYPE	N	WC	Q_u	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
9	SS	18	17.0	1.7*				
10	SS	18	16.8	1.7*				Tough to very tough gray silty CLAY, trace sand and gravel, occasional silt pockets, mois (CL,
11	SS	17	16.7	1.5*				
12	SS	24	17.3	1.7*				
13	SS	24	16.5	2.2*				Sample 13: LL = 27, PI = 12; 4% Gravel, 2% Sand, 57% Silt, 37% Clay
14	SS	26	16.0	2.5*				
15	SS	25	15.9	2.5*				Sample 15: LL = 27, PI = 10; 2% Gravel, 7% Sand, 53% Silt, 38% Clay
16	SS	31	15.7	2.5*				

*-Approximate unconfined compres strength based on measurements a calibrated pocket penetrometer

End of Boring at 80.0 feet

TESTING SERVICE CORPORATION

DRILL RIG NO. 53

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 208 DATE STARTED 12-11-81 DATE COMPLETED 12-11-81 JOB 18,617

ELEVATIONS

GROUND SURFACE 763.6

END OF BORING 683.6

WATER TABLE

AT END OF BORING "DRY"

24 HOURS 0.7'

While Drilling "DRY"

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
									Black highly organic TOPSOIL
							2.5	761.1	
	1	SS	9	17.9	1.7*				Tough brown silty CLAY, trace sand and gravel, moist (CL)
							7.0	756.6	
	2	SS	10	14.6	2.7*				
	3	SS	10	14.2	1.7*				Very tough to tough gray silty CLAY, trace sand and gravel, moist; wet silt or sand seams between 11'-13' (CL)
	4	SS	12	18.1	2.0*				
	5	SS	13	16.8	2.5*				
	6	SS	14	16.8	1.5*				
							31.0	732.6	
									Firm gray SILT, very moist (ML)
	7	SS	17						
							37.0	726.6	
	8	SS	17	18.7	2.0*				Very tough gray silty CLAY, occasional silt seams, moist (CL)

Boring Log Continued

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 605

BORING 208 (Cont'd.) DATE STARTED 12-11-81 DATE COMPLETED 12-11-81 JOB 18

ELEVATIONS

GROUND SURFACE 763.6

END OF BORING 683.6

WATER TABLE

AT END OF BORING "DRY"

24 HOURS 0.7'

While Drilling "DRY"

Distance Below Surface in Feet: 40, 45, 50, 55, 60, 65, 70, 75, 80

SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
9	SS	21	17.9	2.2*				
10	SS	26	16.1	2.5*				Very tough gray silty CLAY, trace sand and gravel, occasional silt seams above 45', moist (C
11	SS	26	15.7	2.2*				
12	SS	32	15.8	2.7*				Sample 12: 7% Sand, LL = 27, 55% Silt, PI = 13, 38% Clay
13	SS	36	17.7	3.5*				
14	SS	33	21.6	3.5*				Sample 14: 55% Silt, LL = 32, 45% Clay, PI = 16
15	SS	21	19.6	2.2*				
16	SS	24	23.5	2.0*				

*-Approximate unconfined compres· strength based on measurements a calibrated pocket penetromete.

End of Boring at 80.0 feet

TESTING SERVICE CORPORATION

DRILL RIG NO. 53

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC. 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 209 DATE STARTED 12-9-81 DATE COMPLETED 12-9-81 JOB 18,617

ELEVATIONS

GROUND SURFACE 763.7

END OF BORING 683.7

** - Driller's Note: Seepage from wet silt seams.

WATER TABLE

AT END OF BORING 32.5' & rising slowly**

24 HOURS At Surface

While Drilling 75.0'

SHEET 1 of 2

SAMPLE NO.	TYPE	N	WC	Q_u	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1a b	SS	4	39.2 18.8	1.2*		4.0	759.7	Black highly organic TOPSOIL and black silty CLAY (Slightly organic), very moist (OL)
2	SS	9	16.4	1.0*		10.0	753.7	Tough brown and gray silty CLAY, moist (CL)
3	SS	*** 50/1"						Gray layers of SILT (ML) and silty CLAY (CL); trace sand and gravel, moist
4	SS	20	14.6	1.5*				
5	SS	14	13.5					
						27.0	736.7	
6	SS	12	17.9	1.5*				Tough gray silty CLAY, trace sand and gravel, moist (CL)
7	SS	13	17.6	1.2*				
8	SS	16	17.9	1.5*				

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

Boring Log Continued

TESTING SERVICE CORPORATION

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 209 (Cont'd.) DATE STARTED 12-9-81 DATE COMPLETED 12-9-81 JOB 18,6

ELEVATIONS

GROUND SURFACE 763.7

END OF BORING 683.7

** - Driller's Note: Seepage from wet silt seams.

WATER TABLE

AT END OF BORING 32.5' & rising slowl

24 HOURS At Surface

While Drilling 75.0'

SHEET 2 of

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										Tough gray silty CLAY, trace sand and gravel, moist (CL)
45		9	SS	16	17.8	1.2*				
								47.0	716.7	
50		10	SS	31						Dense gray SILT, wet (ML)
								52.0	711.7	
55		11	SS	17	16.5	2.2*				Very tough gray silty CLAY, trace sand and gravel, moist (CL and dense gray layers of SILT, wet (ML) below 59'
60		12 a b	SS	32	13.9 -	2.5* -				
								63.5	700.2	
65		13	SS	31	22.1	3.7*				Very tough to hard gray silty CLAY, trace sand and gravel, moist (CL)
70		14	SS	21	23.8	4.5+*				
								72.0	691.7	Tough reddish-brown silty CLAY, trace sand and gravel, moist (CL Sample 15: $K=2.1\times10^{-8}$ cm/sec.
▽ 75		15	SS	22	14.4	1.7*				
								75.0	688.7	Firm brown fine to medium SAND, saturated (SP)
80		16	SS	23						Note: Gray silty CLAY in top o sampler at 80'.

End of Boring at 80.0 feet

DRILL RIG NO. 53

TESTING SERVICE

*-Approximate unconfined compressi strength based on measurements wi

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 210 DATE STARTED 12-10-81 DATE COMPLETED 12-10-81 JOB 18,617

ELEVATIONS

GROUND SURFACE 762.2

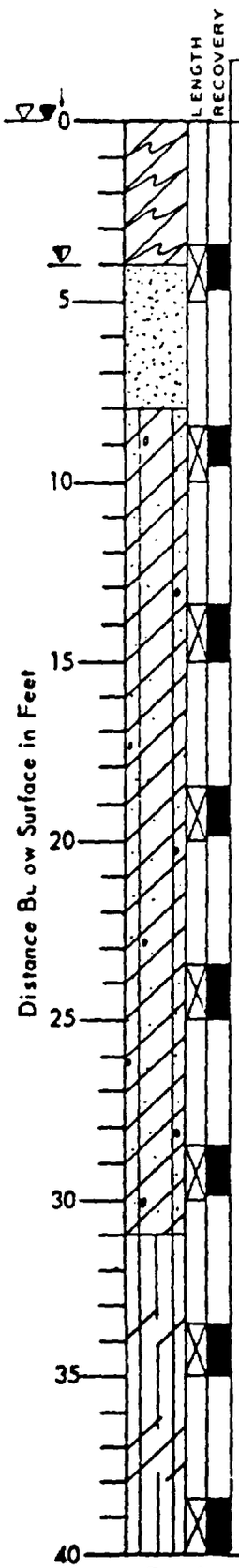
END OF BORING 682.2

WATER TABLE

AT END OF BORING At Surface

24 HOURS At Surface

While Drilling 4.0'



SAMPLE NO.	TYPE	LENGTH RECOVERY	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
									Black organic CLAY, very moist
1a b	SS		10	86.3 -			4.0	758.2	
									Firm brown fine to medium SAND, saturated (SP)
							8.0	754.2	
2	SS		11	14.9	2.2*				
3	SS		17	18.5	2.2*				Very tough to tough gray silty CLAY, trace sand and gravel, moist (CL)
4	SS		18	18.3	1.5*				
5	SS		16	17.5	1.7*				
6	SS		24	17.7	1.7*				
							31.0	731.2	
									Firm gray SILT, very moist (ML) with layers of gray silty CLAY, moist (CL) below 38.5'
7	SS		26						
8	SS		23						

Boring Log Continued

PROJECT H. O. D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 3003 BUTTERFIELD ROAD, OAK BROOK, ILL. 60521

BORING 210 (Cont'd.) DATE STARTED 12-10-81 DATE COMPLETED 12-10-81 JOB 18,61

ELEVATIONS

GROUND SURFACE 762.2

END OF BORING 682.2

WATER TABLE

AT END OF BORING At Surface

24 HOURS At Surface

While Drilling 4.0'

Distance Below Surface in Feet: 40, 45, 50, 55, 60, 65, 70, 75, 80

SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
								Gray layers of silty CLAY, moist (CL) and SILT, very moist (ML)
						42.0	720.2	
9	SS	20	15.7	2.0*				Very tough gray very silty CLAY, trace sand and gravel, moist (CL-[illegible])
10	SS	22	14.7	2.0*				
						53.0	709.2	
11	SS	27	17.5	3.5*				Very tough to tough gray silty CLAY, trace sand and gravel, moist with a few wet sand seams (CL-CH)
12	SS	18	29.1	1.7*				Sample 12: 25% Silt, 75% Clay; LL = 50, PI = 26
						62.0	700.2	
13	SS	23	17.6	1.0*				Tough gray silty CLAY, trace sand and gravel, moist (CL)
14	SS	12		1.2*				
						72.0	690.2	
15	SS	36						Dense gray fine to medium SAND, saturated (SP)
						77.0	685.2	
16	SS	63	11.7	4.5*				Hard gray silty CLAY, a few sand and silt seams, moist (CL)

End of Boring at 80.0 feet

TESTING SERVICE

*Approximate unconfined compression

PROJECT H.O.D. DFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1101 DATE STARTED 2-02-81 DATE COMPLETED 2-02-81 JOB 18,037

ELEVATIONS

GROUND SURFACE 742.4

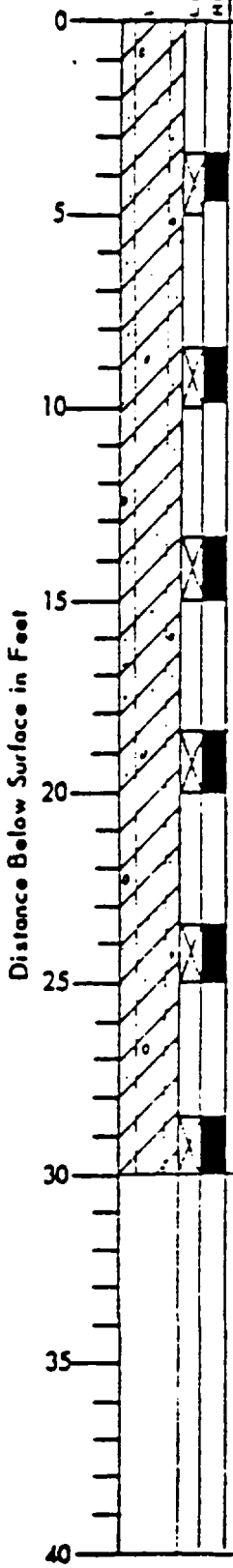
END OF BORING 712.4

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

WHILE DRILLING "DRY"



SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	31	16.4	2.5*				
2	SS	27	14.2	2.0*				
3	SS	34	14.8	2.5*				Very tough gray silty CLAY, trace to little sand and gravel, moist (CL)
4	SS	41	14.8	2.5*				
5	SS	39	13.9	2.5*				
6	SS	36	12.2	2.5				

End of Boring at 30.0 Feet

*-Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer.

TESTING SERVICE CORPORATION

PROJECT H.O.D. NDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 605

BORING 1101A DATE STARTED 2-07-81 DATE COMPLETED 2-07-81 JOB 18.0

ELEVATIONS

GROUND SURFACE 749.4

END OF BORING 704.4

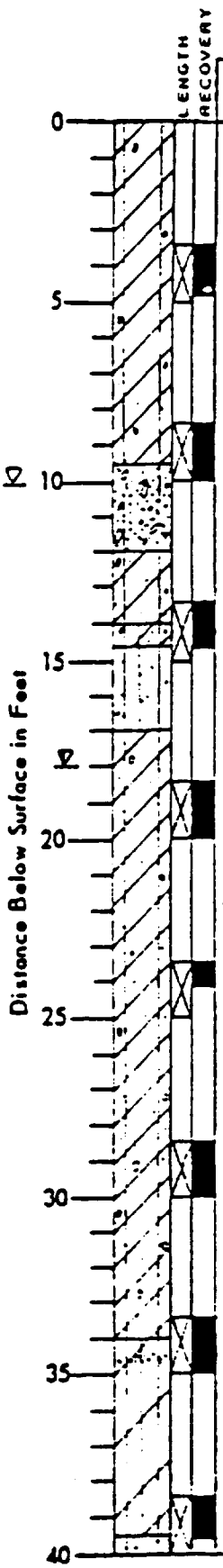
WATER TABLE

AT END OF BORING Cave DRY at -10.0

24 HOURS

WHILE DRILLING -18.0

SHEET 1 OF 2



SAMPLE NO.	TYPE	N	WC	Q_u	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	22	12.1	3.25*				Very tough to tough gray silty CLAY, little to some sand and gravel, moist (CL)
2a b	SS	36	11.3 8.7	1.75*		9.5	739.9	Dense gray fine to coarse SAND and small to large GRAVEL, trac silt, very moist (SW-GW)
						12.0	737.4	Tough gray silty CLAY, some sand and gravel, moist (CL)
3a b c	SS	65	14.9 9.0 16.0	1.75* - -		14.0 14.5	735.4 734.9	Very dense gray clayey silty fine to coarse SAND and small t large GRAVEL, very moist (SC-GC
						17.0	732.4	Dense gray SILT, trace fine sand very moist (ML)
4	SS	17	15.1	2.5				Tough to hard gray silty CLAY, trace to little sand and gr l, occasional cobbles, moist (CL)
5	SS	44	17.3	1.0				
6	SS	53	12.2	4.5*				
7a b c	SS	14	17.1 19.1 14.6 20.5	1.75* - - -		34.0	715.4	Firm gray SILT, trace to little clay, wet (ML) Thin layer of wet fine to mediu SAND from 34' to 34.7'
8a b	SS	14	16.2 -			39.5	709.4	Firm gray very silty fine SAND, saturated (SM)

*-Approximate unconfined compress strength based on measurements a calibrated pocket penetrometer.

Boring Log Continued

TESTING SERVICE CORPORATION

DRILL RIG NO. 60

PROJECT H.O.D. NDFILL, ANTIOCH ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 6052

BORING 1101A(Conc) DATE STARTED 2-07-81 DATE COMPLETED 2-07-81 JOB 18.0

ELEVATIONS

GROUND SURFACE 749.4

END OF BORING 704.4

WATER TABLE

AT END OF BORING Cave DRY at -10.0

24 HOURS

WHILE DRILLING -18.0

SHEET 2 of

LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
									Firm gray very silty fine SAND, saturated (SM)
							42.0	707.4	Dense gray clayey SILT, trace fine sand, moist (ML)
	9	SS	42	16.7	3.5*				

End of Boring at -45.0 Feet

*-Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

Distance Below Surface in Feet: 40, 45, 50, 55, 60, 65, 70, 75, 80

TESTING SERVICE CORPORATION

PROJECT H.O.D. NDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 605

BORING 1101C DATE STARTED 2-07-81 DATE COMPLETED 2-07-81 JOB 8,0

ELEVATIONS

GROUND SURFACE 746.2

END OF BORING 701.2

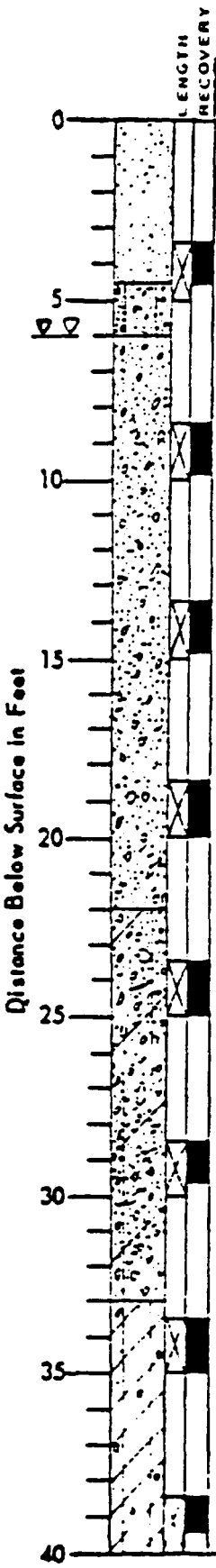
WATER TABLE

AT END OF BORING - 6.0 feet

24 HOURS

WHILE DRILLING - 6.0 feet

SHEET 1 of 2



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
	1a b	SS	19				4.5	741.7	Firm gray fine to coarse SAND, damp (SW)
							6.0	740.2	Firm gray silty fine to coarse SAND, some small gravel, moist (SM)
	2	SS	25						Firm gray fine to coarse SAND and small to medium GRAVEL, saturated (SW-GW)
	3	SS	22						
	4	SS	28				22.0	724.2	
	5	SS	32						Dense to firm gray fine to coarse SAND and small GRAVEL, trace silt and clay, saturated (SW)
	6	SS	21						
	7	SS	26	15.9	2.5*		33.0	713.2	Very tough to gray silty CLAY, trace sand and gravel, moist (CL)
	8	SS	33	15.4	1.0*				Cobbles from 36' to 37'; occasional gravelly sand seams below

*Approximate unconfined compressi strength based on measurements a calibrated pocket penetromete

Boring Log Continued TESTING SERVICE

DRILL RIG NO. 60

PROJECT H.O.D NDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 6052

BORING 1101C(Cont) DATE STARTED 2-07-81 DATE COMPLETED 2-07-81 JOB 18,03

ELEVATIONS

GROUND SURFACE 746.2

END OF BORING 701.2

WATER TABLE

AT END OF BORING - 6.0 feet

24 HOURS

WHILE DRILLING - 6.0 feet

LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							41.0	705.2	Tough gray silty CLAY, trace sand and gravel, moist (CL)
	9	SS	18	11.4	1.0*		43.0	703.2	Firm gray medium to coarse SAND, saturated (SP)
									Tough gray silty CLAY, trace sand and gravel, occasional sand and gravel seams, moist (CL)

End of Boring at -45.0 Feet

*-Approximate unconfined compressio strength based on measurements wi a calibrated pocket penetrometer.

Distance Below Surface in Feet: 40, 45, 50, 55, 60, 65, 70, 75, 80

TESTING SERVICE CORPORATION

PROJECT H.O.D. DFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60

BORING 1102 DATE STARTED 2-02-81 DATE COMPLETED 2-02-81 JOB 18,

ELEVATIONS

GROUND SURFACE 731.0

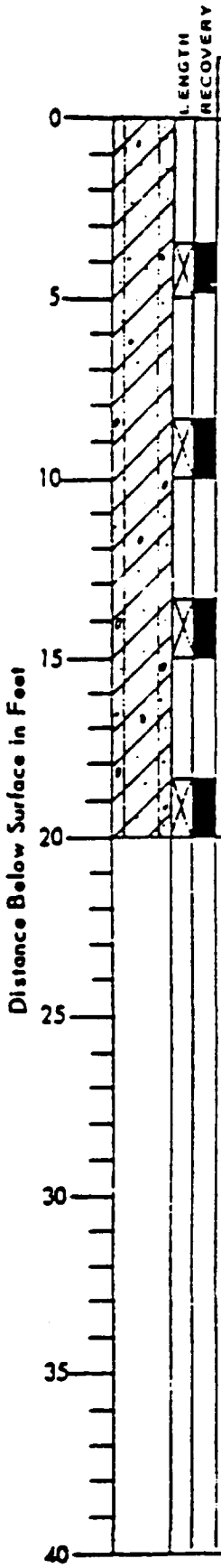
END OF BORING 711.0

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

WHILE DRILLING "DRY"



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
	1	SS	31	14.2	2.5*				
	2	SS	29	12.3	2.25*				Very tough gray silty CLAY trace to little sand and grave occasional sand seams from 8' to 13', moist (CL)
	3	SS	44	12.9	2.0*				
	4	SS	41	12.1	2.25*				
	End of Boring at 20.0 Feet								

*-Approximate unconfined compressic strength based on measurements w a calibrated pocket penetrometer

TESTING SERVICE CORPORATION

DRILL RIG NO. 91

PROJECT H.O.D. DFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1103 DATE STARTED 2-02-81 DATE COMPLETED 2-02-81 JOB 18,037

ELEVATIONS

GROUND SURFACE 730.6

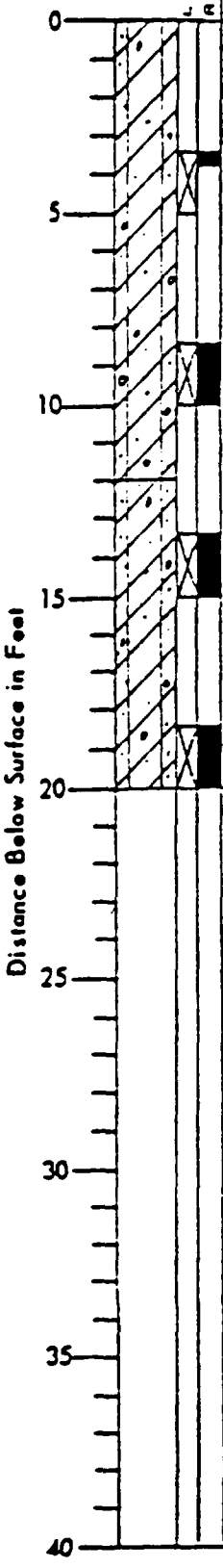
END OF BORING 710.6

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

WHILE DRILLING "DRY"



LENGTH	RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
		1	SS	50/5"**	17.6	3.0*				Very tough brownish-gray very silty to silty CLAY, trace sand and gravel, occasional cobbles, moist (CL-ML)
		2	SS	51	17.9	3.5*				
								12.0	718.6	
		3	SS	45	16.8	4.5*				Hard to very tough gray silty CLAY, trace sand and gravel, occasional cobbles, moist (CL)
		4	SS	45	16.8	3.5*				

End of Boring at 20.0 Feet

**Driving on Cobble

*Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer.

TESTING SERVICE CORPORATION

PROJECT H.O.D. :DFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 6

BORING 1104 DATE STARTED 2-02-81 DATE COMPLETED 2-02-81 JOB 15.

ELEVATIONS

GROUND SURFACE 733.3

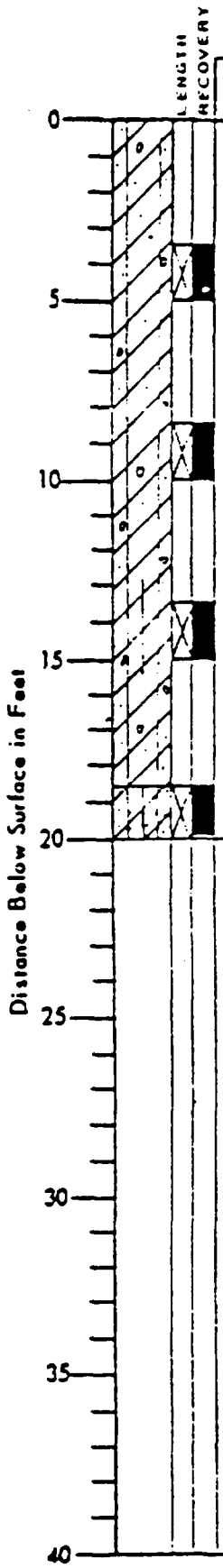
END OF BORING 713.3

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

WHILE DRILLING "DRY"



SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	28	13.0	2.75*				
2	SS	60	14.5	3.0*				Very tough gray silty CLAY, trace sand and gravel, m[illegible]t (CL)
3a b	SS	36	14.4 14.8	2.25* 2.25*				Seams of silt and clayey sil from 14' to 14.5'
4a b	SS	29	- 15.8			18.5	714.8	Firm layers of gray SILT, li clay and gray clayey sandy SI trace gravel, moist (ML)

End of Boring at -20.0 Feet

*Approximate unconfined compr strength based on measurements a calibrated pocket penetromet

TESTING SERVICE CORPORATION

DRILL RIG NO. 31

PROJECT H.O.D. DFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1105 DATE STARTED 2-04-81 DATE COMPLETED 2-04-81 JOB 18,037

ELEVATIONS

GROUND SURFACE 770(estimated)

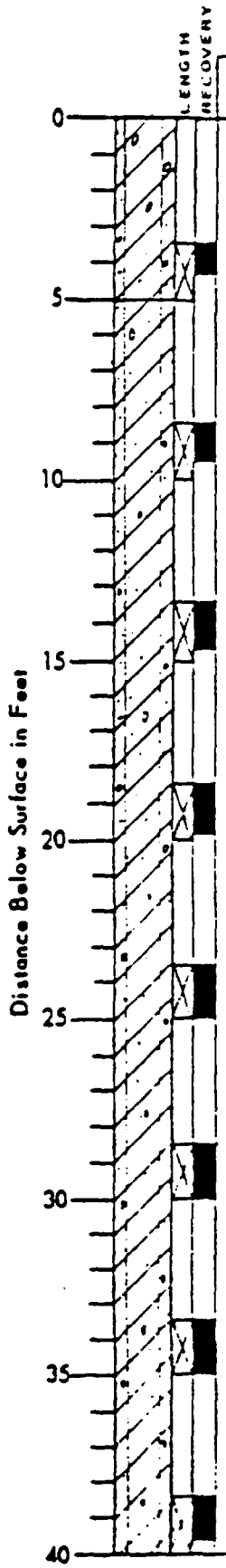
END OF BORING 720

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

WHILE DRILLING "DRY"



SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	18	16.3			5.0	765	FILL - Brownish-gray silty CLAY, trace sand and gravel (CL)
2	SS	27	18.6	2.25*				
3	SS	14	19.1	2.5*				Very tough gray silty CLAY, trace sand and gravel, moist (CL)
4	SS	19	19.3	3.0*				
5	SS	37	17.5	3.75*				
6	SS	40	18.3	2.5*				
7	SS	29	20.9	2.75*				
8	SS	30	18.0	2.5*				

*-Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer.

PROJECT H.O.D. 'DFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60

BORING 1105(Cont) DATE STARTED 2-04-81 DATE COMPLETED 2-04-81 JOB 13..

ELEVATIONS

GROUND SURFACE 770(estimated)

END OF BORING 720

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

WHILE DRILLING "DRY"

SHEET 2 o

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										
45		9	SS	36	20.1	3.0*				Very tough gray silty CLAY, trace sand and gravel, moist (CL)
50		10	SS	30	16.2	3.0*				
		End of Boring at -50.0 Feet								
55										
60										
65										
70										
75										
80										

*-Approximate unconfined compres strength based on measurements a calibrated pocket penetrometer.

TESTING SERVICE CORPORATION

DRILL RIG NO. 91

PROJECT H.O.D. :)FILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1105A DATE STARTED 2-07-81 DATE COMPLETED 2-07-81 JOB 18.03

ELEVATIONS

GROUND SURFACE 767.0

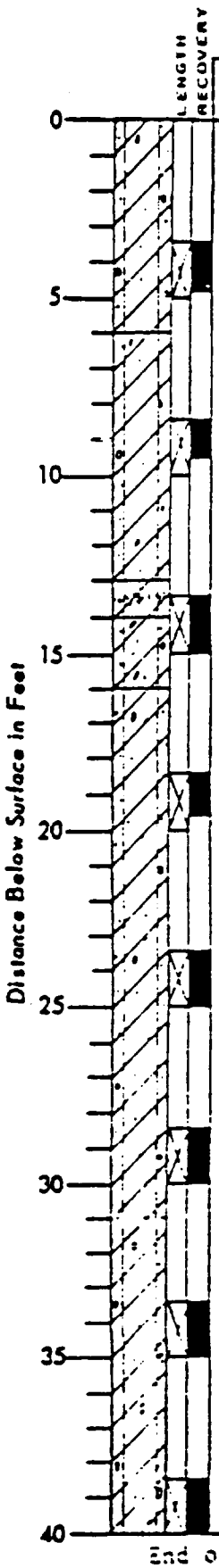
END OF BORING 727.0

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

WHILE DRILLING "DRY"



SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
								Hard brown silty CLAY, little sand, trace gravel, occasional cobbles, moist (CL)
1a	SS	34	15.7	4.5+*				Thin layers of brown silty sandy clay from 4.5' to 5'
1b			15.1	-				
						6.0	761.0	
								Hard brown silty CLAY, little to some sand, trace gravel, occasional clayey sand pockets, moist (CL)
2a	SS	17	-	-				
2b			15.6	4.0*				Thin layer of brown silty clayey sand with small gravel from 9' to 9.5'
						13.0	754.0	
								Tough gray silty CLAY with seams of sandy clayey silt, moist (CL)
3a	SS	17	22.2	1.75*		14.0	753.0	
3b			19.8	2.0*				
						16.0	751.0	Very tough gray silty CLAY, trace sand, occasional silt partings and cobbles, moist (CL)
4	SS	23	17.3	3.0*				
								Very tough to hard gray silty CLAY, trace sand and gravel, moist (CL)
5	SS	42	18.5	4.5+*				
6	SS	21	20.5	3.0*				
7	SS	21	20.7	4.25*				
8	SS	36	21.1	3.5*				

*-Approximate unconfined compression strength based on measurements wit a calibrated pocket penetrometer.

End of Boring at -40.0 Feet TESTING SERVIC

DRILL RIG NO. 60

PROJECT H.O.D. L FILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 6052

BORING 1106 DATE STARTED 2-04-81 DATE COMPLETED 2-05-81 JOB 18.0

ELEVATIONS

GROUND SURFACE 757.5

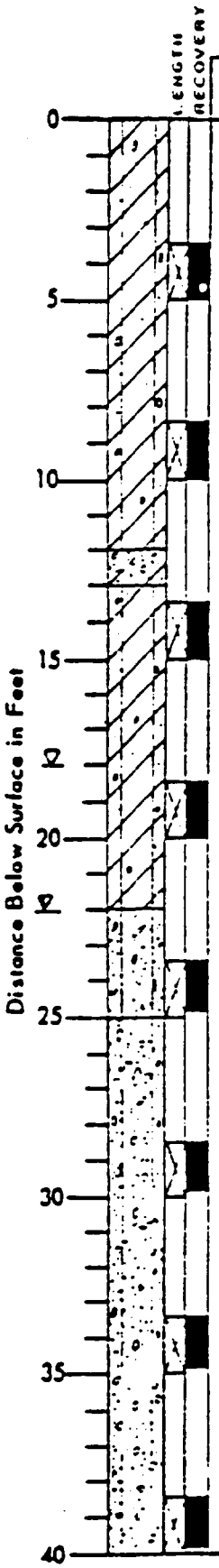
END OF BORING 706.5

WATER TABLE

AT END OF BORING -18.0 feet

24 HOURS

WHILE DRILLING -22.0 feet



SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	25	18.4	2.25*				Very tough gray silty CLAY, trace to little sand, trace gravel, moist (CL)
2	SS	23	11.2	2.25*				
						12.0	745.5	
						13.0	744.5	Firm gray SAND, some gravel, trace clay, moist (SW)
3	SS	30	12.7	2.75*				Very tough gray silty to very silty CLAY, trace to some sand, trace gravel, moist (CL)
4	SS	32	11.6	3.0*				
						22.0	735.5	
5	SS	40	11.4	2.5*				Dense layers of gray silty fine to coarse SAND and gray SILT, wet (SM,ML)
						25.0	732.5	
6	SS	34						Dense to very dense gray fine to coarse SAND and small to large GRAVEL, trace to little silt, saturated (SW-SM/GW-GM)
7	SS	73						
8	SS	69						

*Approximate unconfined compressi- strength based on measurements w a calibrated pocket penetrometer.

Boring Log Continued **TESTING SERVICE**

DRILL RIG NO. 91

PROJECT H.O.D., DEILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1106(Cont) DATE STARTED 2-04-81 DATE COMPLETED 2-05-81 JOB 18,037

ELEVATIONS

GROUND SURFACE 757.5

END OF BORING 706.5

WATER TABLE

AT END OF BORING -18.0 feet

24 HOURS

WHILE DRILLING -22.0 feet

Distance Below Surface in Feet	LENGTH	RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40											
45			9	SS	49						Dense gray fine to coarse SAND and small to medium GRAVEL, trace to little silt, saturated (SW-SC/GW-GM)
									48.0	709.5	
50											Boulder
55			End of Boring at -51.0 Feet Auger Refusal at -51.0 feet attributed to a boulder.								
60											
65											
70											
75											
80											

PROJECT H.O.D.] JFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 605

BORING 1107 DATE STARTED 2-05-81 DATE COMPLETED 2-06-81 JOB 18,0

ELEVATIONS

GROUND SURFACE 731.5

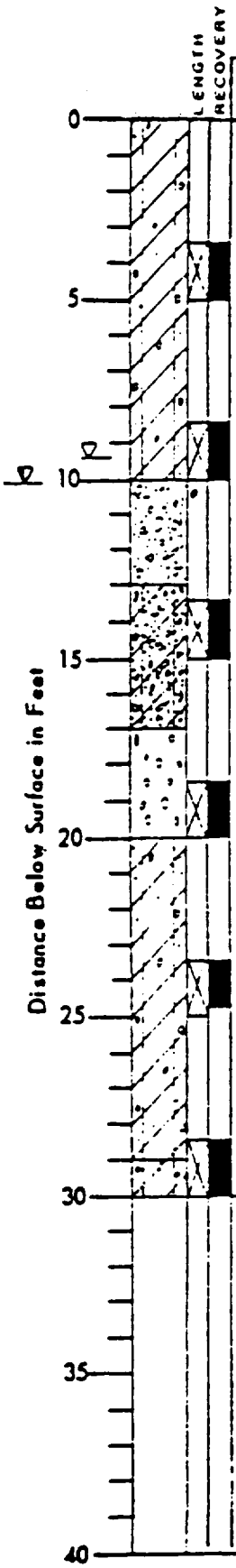
END OF BORING 701.5

WATER TABLE

AT END OF BORING - 9.5 feet

24 HOURS

WHILE DRILLING -10.0 feet



LENGTH	RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
		1	SS	34	16.8	2.25*				Very tough gray silty CLAY, trace sand and gravel, moist (CL)
		2	SS	40	16.0	3.25*				
								10.0	721.5	Dense gray fine to medium SAND, trace small gravel, saturated (SP)
								13.0	718.5	
		3	SS	31						Dense gray silty clayey fine to coarse SAND and small GRAVEL very moist to wet (SM-SC)
								17.0	714.5	
										Dense gray medium to coarse SAN and small GRAVEL, occasional cobbles, saturated (SW-GW)
		4	SS	32						
								20.0	711.5	
										Tough to hard gray silty CL trace to little sand, trace gravel, moist (CL)
		5	SS	17	24.1	3.25				
		6a	SS	29	28.6	1.5		29.0	702.5	
		6b			11.6	-				Firm gray clayey SILT, trace sa... and gravel, layer of gray sandy silt from 29' to 29.5', moist (ML)
		6c			11.2	4.0*				

End of Boring at 30.0 Feet

*Approximate unconfined compression strength based on measurements w a calibrated pocket penetrometer.

TESTING SERVICE CORPORATION

PROJECT H.O.D. L6 FILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1107A DATE STARTED 2-06-81 DATE COMPLETED 2-06-81 JOB 18,037

ELEVATIONS

GROUND SURFACE Not Available

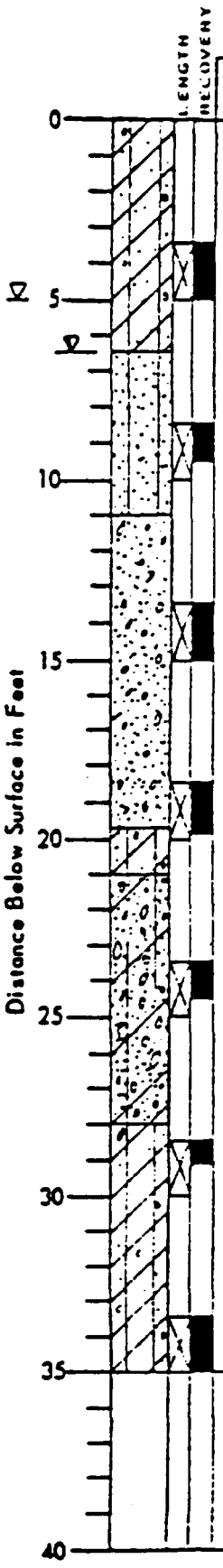
END OF BORING

WATER TABLE

AT END OF BORING - 5.0 feet

24 HOURS

WHILE DRILLING - 6.5 feet



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
	1	SS	33	12.9	4.5+*				Hard gray silty CLAY, little sand, trace gravel, occasional silt pockets, moist (CL)
							6.5		
	2	SS	16						Firm gray silty fine to coarse SAND, wet (SM)
							11.0		
	3	SS	29						Firm gray medium to coarse SAND and small to medium GRAVEL, saturated (SW-GW)
	4a b	SS	18	- 9.6			19.7		
							21.0		Gray sandy silty CLAY with gravel, moist (CL)
	5	SS	56						Very dense gray fine to coarse SAND and small to large GRAVEL, trace silt and clay, saturated (SW-GW)
							28.0		
	6	SS	30	20.0	2.0*				Very tough to tough gray silty CLAY, trace to little sand, trace gravel, moist (CL)
	7	SS	27	18.0	1.6*				

End of Boring at 35.0 Feet

*Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer.

TESTING SERVICE CORPORATION

PROJECT H.O.D. NDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60:

BORING 1108 DATE STARTED 2-06-81 DATE COMPLETED 2-06-81 JOB 18,0:

ELEVATIONS

GROUND SURFACE 732.6

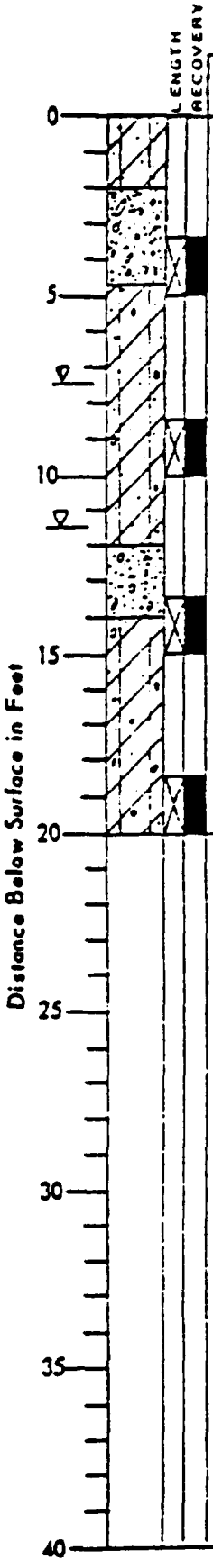
END OF BORING 712.6

WATER TABLE

AT END OF BORING -11.5 feet

24 HOURS

WHILE DRILLING - 7.5 feet



LENGTH	RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
										Gray silty sandy CLAY, moist (CL)
								2.0	730.6	
		1 a b	SS	28	16.5	2.5*				Firm gray fine to coarse SAND and small to large GRAVEL, very moist (SW-GW)
								4.7	727.9	
		2	SS	23	17.7	2.75*				Very tough gray silty CLAY, trace sand and gravel, occ on silt seams, moist (CL)
								12.0	720.6	
		3 a b	SS	31	18.0	2.25*				Dense gray fine to coarse SAND some small to medium gravel, we
								14.0	718.6	
		4	SS	22	15.8	2.5*				Very tough gray silty CLAY, trace sand and gravel, occasion silt pockets, moist (CL

End of Boring at 20.0 Feet

*Approximate unconfined compressi strength based on measurements a calibrated pocket penetrometer

TESTING SERVICE CORPORATION

PROJECT H.O.D. L .DFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 6052

BORING 1109 DATE STARTED 2-06-81 DATE COMPLETED 2-06-81 JOB 18.0

ELEVATIONS

GROUND SURFACE 734.6

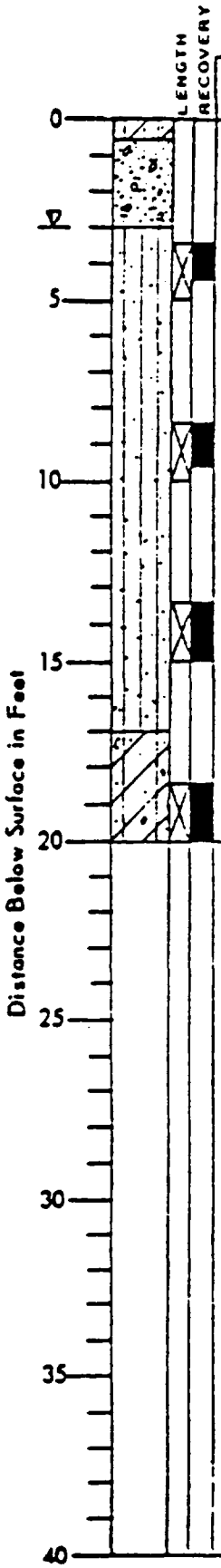
END OF BORING 714.6

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

WHILE DRILLING - 3.0 feet



LENGTH	RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	%DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
								0.5	734.1	Gray silty CLAY, little sand, mois
										Gray SAND, some gravel, a few cobbles, very moist to wet (SW)
								3.0	731.6	
		1	SS	27						Firm to dense gray SILT, trace to little fine sand, very moist (ML)
		2	SS	36						
		3	SS	42						
								17.0	717.6	
		4a	SS	39	14.2	4.5+*				Hard gray silty CLAY, trace sand and gravel, moist: occasional sandy silt pockets below 19' (CL)
		4b			14.2	4.0*				

End of Boring at 20.0 Feet

*Approximate unconfined compressio strength based on measurements wit a calibrated pocket penetrometer.

TESTING SERVICE CORPORATION

PROJECT H.O.D. NDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 6052!

BORING 1110 DATE STARTED 2-06-81 DATE COMPLETED 2-06-81 JOB 18.037

ELEVATIONS

GROUND SURFACE 763.0

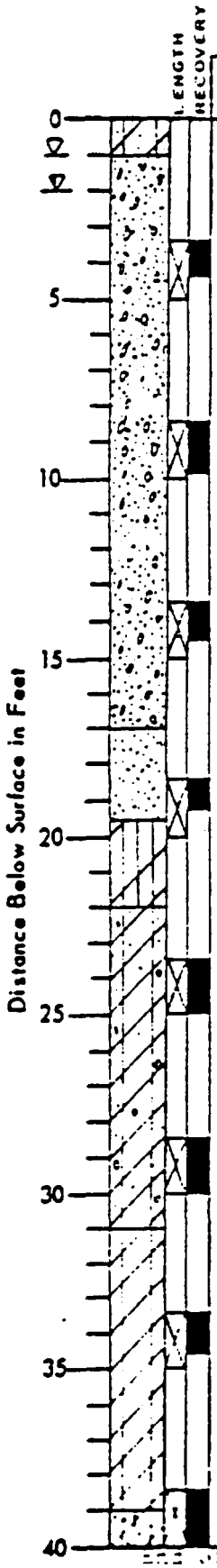
END OF BORING 723.0

WATER TABLE

AT END OF BORING - 1.0 feet

24 HOURS

WHILE DRILLING - 2.0 feet



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							1.0	762.0	Gray silty CLAY, some sand, moist(
	1	SS	14						Firm to dense gray fine to coarse SAND and small to medium GRAVEL, saturated (SW-GW)
	2	SS	18						
	3	SS	32/10**						
							17.0	746.0	Very dense gray fine to medium SAND, saturated (SP)
	4a b	SS	51	10.0			19.5	743.5	Dense gray SILT, little clay, very moist (ML)
							22.0	741.0	
	5	SS	32	15.0	3.5*				Very tough to hard gray silty CLAY, trace sand and gravel, moist (CL)
	6	SS	40	16.5	4.5+*				
							31.0	732.0	
	7	SS	10	27.4	1.75*				Tough to very tough gray silty CLAY, moist (CL)
	8a b c	SS	15	13.7 - 14.4	2.5* - -		39.0	724.0	Layers of gray sandy(fine) SILT, wet and gray SILT, little clay and fine sand, very moist (ML)

*-Approximate unconfined compression strength based on measurements wi a calibrated pocket penetrometer.

End of boring at -40.0 feet

PROJECT H.O.D. LA .FILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1111 DATE STARTED 2-12-81 DATE COMPLETED 2-12-81 JOB 18,

ELEVATIONS

GROUND SURFACE 782.6

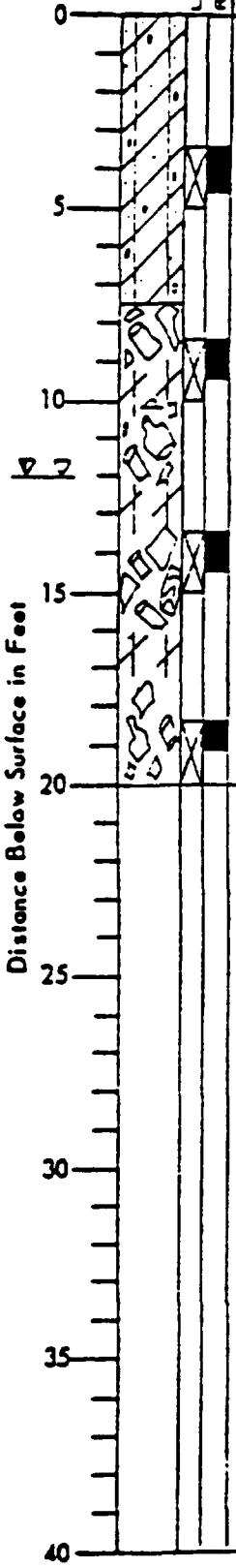
END OF BORING 762.6

WATER TABLE

AT END OF BORING -12.0'

24 HOURS

While Drilling -12.0'



LENGTH	RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
		1	SS	14	12.1					FILL - Gray silty CLAY, trace sand and gravel
								7.5	775.1	
		2	SS	18	14.6					REFUSE - WOOD, PAPER, SLUDGE, DRYWALL, METAL SCRAP, PLASTIC AND MISC. GARBAGE with layers of silty clay
		3	SS	14	26.2					
		4	SS	11	27.3					

End of Boring at 20.0 feet

TESTING SERVICE CORPORATION

PROJECT H.O.D. LA...ILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1111A DATE STARTED 2-12-81 DATE COMPLETED 2-12-81 JOB 18.03

ELEVATIONS

GROUND SURFACE 778.6

END OF BORING 728.6

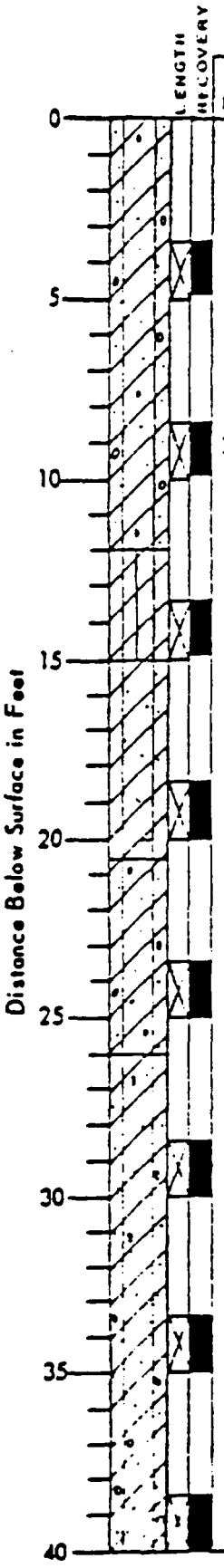
WATER TABLE

AT END OF BORING "DRY"

24 HOURS

While Drilling "DRY"

SHEET 1 of 1



SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	17	18.3 14.6					FILL - Gray silty CLAY, trace sand and gravel (CL
2	SS	18	13.7					
						12.0	766.6	
3	SS	25	12.0					FILL - Gray clayey SILT (ML
						15.0	763.6	
4	SS	24	19.9	2.0*				Very tough gray very silty CLAY some fine sand, trace roots (CL
						20.5	758.1	
5	SS	21	14.7	3.75*				Very tough brownish-gray silty CLAY, trace sand and gravel, moist (CL
						26.0	752.6	
6	SS	22	16.5	4.5*				Hard to tough gray silty CLAY, trace sand and gravel, moist (C
7	SS	20	17.7	2.0*				
8	SS	16	16.3	1.75*				

*-Approximate unconfined compressi strength based on measurements w a calibrated pocket penetrometer.

PROJECT H.O.D. L ›FILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60

BORING 1111A(Cont'd.) DATE STARTED 2-12-81 DATE COMPLETED 2-12-81 JOB 18,0

ELEVATIONS

GROUND SURFACE 778.6

END OF BORING 728.6

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

While Drilling "DRY"

SHEET 2 of

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										
45		9	SS	21	17.4	2.5*				Very tough gray silty CLAY, trace sand and gravel, moist
50		10	SS	24	15.7	2.25*				
		End of Boring at 50.0 feet								
55										
60										
65										
70										
75										
80										

*-Approximate unconfined compress strength based on measurement a calibrated pocket penetromet

TESTING SERVICE CORPORATION

PROJECT H.O.D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1201 DATE STARTED 2-09-81 DATE COMPLETED 2-09-81 JOB 18,037

ELEVATIONS

GROUND SURFACE 746.0

END OF BORING 701.0

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

WHILE DRILLING "DRY"

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	▽ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
	1	SS	19	12.6	2.0*				Very tough gray sandy silty CLAY, a few fine sand seams, trace gravel, moist (CL)
							6.0	740.0	
	2	SS	20						Gray sandy very silty CLAY with considerable small gravel, moist (CL)
							11.0	735.0	
	3	SS	28	17.6	2.5*				Very tough gray silty CLAY, trace sand and gravel, moist (CL)
	4	SS	25	16.9	2.5*				
							22.0	724.0	
	5	SS	23	15.7					Firm gray clayey SILT, trace sand, moist (ML)
							27.0	719.0	
	6	SS	36	15.4	3.25*				Very tough gray silty CLAY, trace sand and gravel, moist (CL)
	7	SS	18	15.7	3.75*				
							37.0	709.0	
	8	SS	26	17.1	4.5*				Hard brownish-gray silty CLAY, trace sand and gravel, moist (CL)

Boring Log Continued

PROJECT H.O.D. L FILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 605

BORING 1201(Cont) DATE STARTED 2-09-81 DATE COMPLETED 2-09-81 JOB 18.

ELEVATIONS

GROUND SURFACE 746.0

END OF BORING 701.0

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

WHILE DRILLING "DRY"

SHEET 2 of

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										Very tough gray silty CLAY, tr sand, moist (CL)
45		9	SS	16		2.25*				
		End of Boring at 45.0 feet								
50										*-Approximate unconfined com ss strength based on measurements a calibrated pocket penetromete
55										
60										
65										
70										
75										
80										

TESTING SERVICE CORPORATION

DRILL RIG NO. 60

PROJECT H.O.D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 6052

BORING 1202 DATE STARTED 2-09-81 DATE COMPLETED 2-09-81 JOB 18,03

ELEVATIONS

GROUND SURFACE 738.4

END OF BORING 693.4

WATER TABLE

AT END OF BORING -10.0 feet

24 HOURS

WHILE DRILLING -17.0 feet

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	19	20.9	2.25*				Very tough to tough gray silty CLAY, trace to little sand and gravel, occasional silt seams from 2' to 7', moist (CL)
2	SS	16	19.0	1.75*				
3	SS	13	20.4	2.0*				
						17.0	721.4	
4	SS	23						Firm gray medium to coarse SAND, little small gravel above 22' and below 28', saturated (SP)
5	SS	29						
6a/6b	SS	46				29.5	708.9	
7	SS	44						Dense gray fine to coarse SAND and small to large GRAVEL, trace clay, saturated (SW-SC/GW-
8	SS	43						

*Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer

TESTING SERVICE CORPORATION

PROJECT H.O.D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60

BORING 1202(Cont) DATE STARTED 2-09-81 DATE COMPLETED 2-09-81 JOB 18

ELEVATIONS

GROUND SURFACE 738.4

END OF BORING 693.4

WATER TABLE

AT END OF BORING -10.0 feet.

24 HOURS

WHILE DRILLING -17.0 feet

SHEET 2 c

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										Dense gray fine to coarse SAND = small to large GRAVEL, trace cl saturated (SW-SC/GW-GC)
								42.0	696.4	Very dense gray SILT, trace fine sand, wet (ML)
45		9	SS	50	16.8					
		End of Boring at -45.0 Feet								
50										
55										
60										
65										
70										
75										
80										

TESTING SERVICE CORPORATION

PROJECT H.O.D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1203 DATE STARTED 2-09-81 DATE COMPLETED 2-09-81 JOB 18,037

ELEVATIONS

GROUND SURFACE 744.3

END OF BORING 699.3

WATER TABLE

AT END OF BORING -13.0 feet

24 HOURS

WHILE DRILLING -12.0 feet

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35

SAMPLE NO.	TYPE	N	WC	Q_u	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
								Tough gray silty CLAY, trace sand and gravel, moist (CL)
1a/b	SS	18	18.2 -	1.5* -		4.5	739.8	
								Firm gray SILT, trace fine sand, little clay below 6', very moist (ML)
2a/b	SS	15	- 23.8	- 2.0*		9.5	734.8	
								Very tough gray silty CLAY, trace sand and gravel, moist (CL)
						12.0	732.3	
								Firm gray fine to coarse SAND and small to medium GRAVEL, trace clay, saturated (SW-GW)
3a/b	SS	16	- 12.9	- 2.25*		14.5	729.8	
								Very tough gray silty CLAY, some to trace sand and gravel, occasiona sand seams, moist (CL)
4a/b	SS	26	12.8 13.4	2.5* 1.5*		19.0	725.3	
								Tough gray silty very sandy and gravelly CLAY, moist (CL)
						22.0	722.3	
								Firm gray sandy clayey SILT, moist (ML)
5a/b	SS	12	17.0 17.1	- 2.5*		24.5	719.8	
								Very tough gray silty CLAY, trace sand and gravel, occasional silt pockets, moist (CL)
						27.0	717.3	
6	SS	37	14.9	2.25*				Very tough gray silty CLAY, some gravel, trace sand, moist (CL)
						32.0	712.3	
7	SS	25	11.3					Firm gray clayey SAND and GRAVEL, wet (SC)
						37.0	707.3	
8	SS	24	15.9	1.5*				Tough gray silty CLAY, trace sand and gravel, moist (CL)

*-Approximate unconfined compression strength based on measurements wit a calibrated pocket penetrometer.

PROJECT H.O.D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 605

BORING 1203(Cont) DATE STARTED 2-09-81 DATE COMPLETED 2-09-81 JOB 18 C

ELEVATIONS

GROUND SURFACE 744.3

END OF BORING 699.3

WATER TABLE

AT END OF BORING -13.0 feet

24 HOURS

WHILE DRILLING -12.0 feet

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										Very tough gray silty CLAY, occasional silt seams, moist (CL)
45		9	SS	21		2.0*				
		End of Boring at -45.0 Feet								
50										
55										
60										
65										
70										
75										
80										

*Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer

PROJECT H.O.D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1204 DATE STARTED 2-09-81 DATE COMPLETED 2-09-81 JOB 18.037

ELEVATIONS

GROUND SURFACE 741.4

END OF BORING 726.4

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

WHILE DRILLING "DRY"

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
0								1.0	740.4	FILL - Gray silty CLAY, trace sand and gravel, (CL)
5		1	SS	33						REFUSE - CARDBOARD, WOOD, PAPER, METAL SCRAP and miscellaneous GARBAGE with layers of silty clay
10		2	SS	24						
15		3	SS	20						
20		End of Boring at 15.0 Feet								
25										
30										
35										

PROJECT H.O.D. L .FILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 605

BORING 1205 DATE STARTED 2-13-81 DATE COMPLETED 2-13-81 JOB 18,03

ELEVATIONS

GROUND SURFACE 744.0

END OF BORING 709.0

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

While Drilling "DRY"

SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
1	SS	16	16.1	3.25*				
2	SS	16	16.7	3.25*				
3	SS	21	15.8	3.0*				Very tough gray silty CLAY, trace sand and gravel, occasional seams and pockets of silt; verticle silt seams in Sample 5, moist
4	SS	20	16.4	2.5*				
5	SS	21	17.0	3.0*				
6	SS	17	15.6	3.5*				
7	SS	30				33.5	710.5	Dense gray clayey SILT, trace sand, occasional silt seams, moist

End of Boring at 35.0 feet

*-Approximate unconfined compr strength based on measuremen a calibrated pocket penetrome

Distance Below Surface in Feet: 0, 5, 10, 15, 20, 25, 30, 35, 40

TESTING SERVICE CORPORATION

PROJECT H.O.D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1206 DATE STARTED 2-13-81 DATE COMPLETED 2-13-81 JOB 18,037

ELEVATIONS

GROUND SURFACE 752.4

END OF BORING 717.4

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

While Drilling "DRY"

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
0										FILL - Brown, gray and black silty CLAY, some sand, trace gravel (CL)
5		1	SS	26	11.7					
								6.0	746.4	
10		2	SS	13	16.8	3.0*				
15		3	SS	14	18.2	2.0*				Very tough gray silty CLAY, trace sand and gravel, occasional silt seams, moist (CL)
20		4	SS	15	18.0	2.25*				
25		5	SS	18	17.0	2.0*				
30		6	SS	15	18.2	2.25*				
35		7	SS	18	16.7	2.75*				
40		End of Boring at 35.0 feet								

*-Approximate unconfined compression strength based on measurements with a calibrated pocket penetrometer.

PROJECT H.O.D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 605

BORING 1207 DATE STARTED 2-13-81 DATE COMPLETED 2-13-81 JOB 18,0

ELEVATIONS

GROUND SURFACE 763.0

END OF BORING 718.0

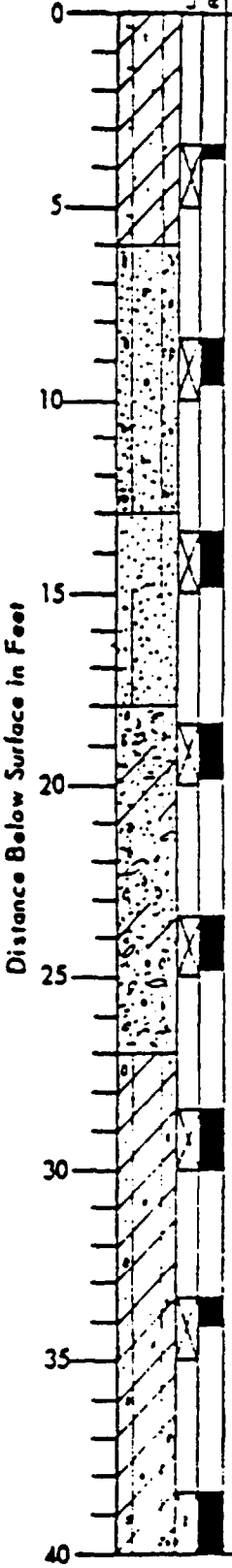
WATER TABLE

AT END OF BORING "DRY"

24 HOURS

While Drilling "DRY"

SHEET 1 of



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
	1	SS	22	15.6					Brown sandy silty CLAY, moist (
							6.0	757.0	
	2	SS	22						Firm gray silty fin to coarse SAND, trace small gravel, moist (S
							13.0	750.0	
	3	SS	21						Firm gray fine SAND, trace silt, moist (SP-
							18.0	745.0	
	4	SS	32						Dense to firm gray gravelly (small to medium) fine to ar SAND, occasional clayey sand pockets, moist (
	5	SS	25						
							27.0	736.0	
	6	SS	16	17.6	2.25*				Very tough to hard gray silty CLAY, trace to little sand, trace gravel, occasional silt pockets, moist (
	7	SS	18	17.1	2.25*				
	8	SS	26	14.2	4.5+*				

*-Approximate unconfined compre strength based on measurements a calibrated pocket penetromet

Boring Log Continued

DRILL RIG NO. 53

TESTING SERVICE CORPORATION

PROJECT H.O.D. L .FILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60521

BORING 1207 (Cont'd.) DATE STARTED 2-13-81 DATE COMPLETED 2-13-81 JOB 18,037

ELEVATIONS

GROUND SURFACE 763.0

END OF BORING 718.0

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

While Drilling "DRY"

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										Hard brownish-gray silty CLAY, trace sand and gravel, moist (CL)
45		9	SS	34	18.5	4.5+*				
		End of Boring at 45.0 feet								
50										
55										
60										
65										
70										
75										
80										

*Approximate unconfined compressi strength based on measurements a calibrated pocket penetrometer.

PROJECT H.O.D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60

BORING 1208 DATE STARTED 2-13-81 DATE COMPLETED 2-13-81 JOB 18,

ELEVATIONS

GROUND SURFACE 743.9

END OF BORING 698.9

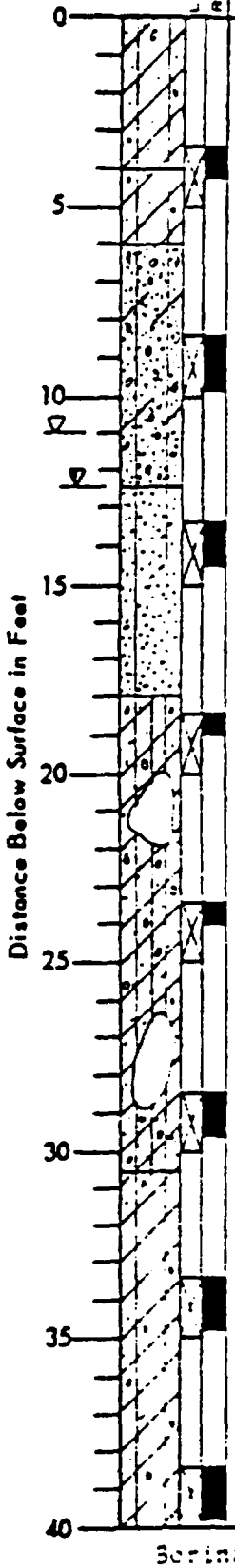
WATER TABLE

AT END OF BORING -11.0'

24 HOURS

While Drilling -12.5'

SHEET 1 of



SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
								FILL - Gray and brown silty Cl trace sand and gravel (
1	SS	12	17.8	1.0*		4.0	739.9	
								Tough gray silty CLAY, trace sand and gravel, moist (C
						6.0	737.9	
2	SS	28	13.5					Firm gray silty fine to co e SAND and small GRAVEL with pockets of silty clay, moist (SM-U
						12.5	731.4	
3	SS	15						Firm gray fine SAND, trace silt, wet (SP-
						18.0	725.9	
4	SS	54	20.4					
5	SS	24	13.4					Very dense to firm gray cl sandy SILT, some gravel, occasional cobbles and boulder layer of silt from 28.5' to 30.5', very moist (ML
6	SS	51						
						30.5	713.4	
								Very tough gray silty CLAY, tr sand and gravel, moist (CL
7	SS	31	16.6	2.75*				
8	SS	29	17.0	2.75*				

*-Approximate unconfined compre strength based on measurements a calibrated pocket penetromet

Boring Log Continued

TESTING SERVICE CORPORATION

PROJECT H.O.D. DFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 6052!

BORING 1208(Cont'd.) DATE STARTED 2-13-81 DATE COMPLETED 2-13-81 JOB 18,03

ELEVATIONS

GROUND SURFACE 743.9

END OF BORING 698.9

WATER TABLE

AT END OF BORING -11.0'

24 HOURS

While Drilling -12.5'

SHEET 2 of

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										
		9	SS	32	16.8	3.25*				Very tough gray silty CLAY, trace sand and gravel, moist (CL)
45										
		End of Boring at 45.0 feet								
50										
55										
60										
65										
70										
75										
80										

*-Approximate unconfined compress strength based on measurements a calibrated pocket penetrometer

PROJECT H.O.D. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60

BORING 1209 DATE STARTED 2-16-81 DATE COMPLETED 2-16-81 JOB 18.0

ELEVATIONS

GROUND SURFACE 756.1

END OF BORING 706.1

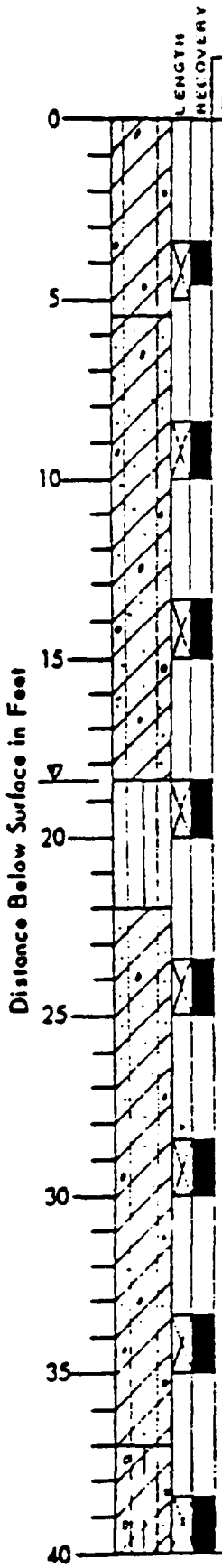
WATER TABLE

AT END OF BORING "DRY"

24 HOURS

While Drilling -18.5'

SHEET 1



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
	1	SS	31	12.2					FILL - Gray sandy silty CLAY, trace gravel
							5.5	750.6	
	2	SS	12	17.8	2.5*				Very tough to tough gray silty CLAY, trace sand and gravel, moist
	3	SS	13	17.7	1.75*				
							18.5	737.6	
	4	SS	25						Firm gray SILT, wet
							22.0	734.1	
	5	SS	17	15.7	1.75*				Tough to very tough gray silty CLAY with seams of silt above 27.0', trace sand and gravel, moist
	6	SS	16	18.5	2.0*				
	7	SS	20	17.7	2.25*				
							37.0	719.1	
	8	SS	21	17.4	3.25*				Firm gray very clayey SILT and very tough gray very silty CLA trace sand and gravel, moist

*-Approximate unconfined compres strength based on measurement a calibrated pocket penetromet

Boring Log Continued

TESTING SERVICE

PROJECT H.O.D. L NDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 6052

BORING 1209(Cont'd.) DATE STARTED 2-16-81 DATE COMPLETED 2-16-81 JOB 18,03

ELEVATIONS

GROUND SURFACE 756.1

END OF BORING 706.1

WATER TABLE

AT END OF BORING "DRY"

24 HOURS

While Drilling -18.5'

LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
	9	SS	24	14.5	3.0*				Firm gray very clayey SILT and very tough gray very silty CLAY, trace sand and gravel, moist (CL-ML)
							47.0	709.1	
	10	SS	22	21.7	3.75*				Very tough gray silty CLAY, trace sand and gravel, moist (CL)

End of Boring at 50.0 feet

*-Approximate unconfined compress strength based on measurements a calibrated pocket penetrometer

Distance Below Surface in Feet: 40, 45, 50, 55, 60, 65, 70, 75, 80

PROJECT H.O.D. L FILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 900 JORIE BOULEVARD, OAK BROOK, ILLINOIS 60

BORING 1210 DATE STARTED 2-16-81 DATE COMPLETED 2-16-81 JOB 18.

ELEVATIONS

GROUND SURFACE 741.5

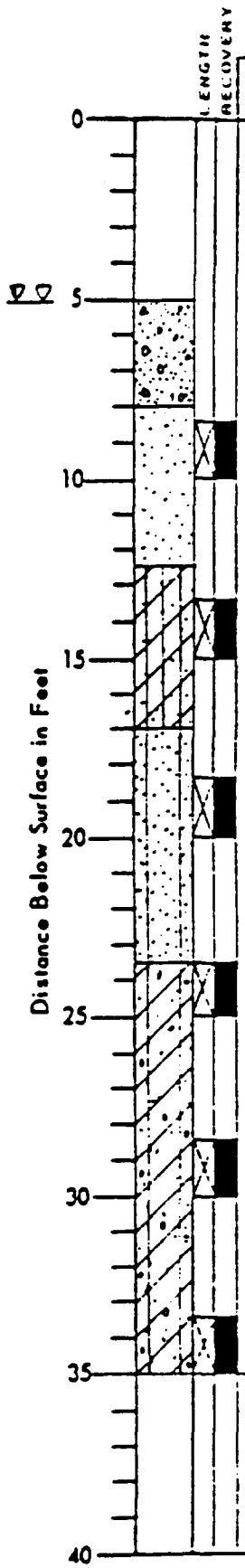
END OF BORING 706.5

WATER TABLE

AT END OF BORING - 5.0'

24 HOURS

While Drilling - 5.0'



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
									FILL - Top 5 feet of material was placed to make the bore hole location accessible for a drill rig.
							5.0	736.5	Brown fine to coarse SAND and small GRAVEL, saturated
							8.0	733.5	
	1	SS	8						Loose gray fine SAND, saturated
							12.5	729.0	
	2	SS	19	13.5					Firm gray clayey sandy SILT, moist
							17.0	724.5	
	3	SS	6						Loose gray silty fine SAND, wet
							23.5	718.0	
	4	SS	15	14.3	2.0*				Very tough gray silty CLAY, t to some sand, trace gravel, moist (C
	5	SS	19	12.9	2.5*				
	6	SS	22	14.7	2.75*				

End of Boring at 35.0 feet

*-Approximate unconfined compr strength based on measuremen a calibrated pocket penetromet

TESTING SERVICE CORPORATION

C6

TESTING SERVICE CORPORATION, 1983
(LP1-LP10)

PROJECT H.O LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC. 3003 Butterfield Road, Oak Brook, Illinois

BORING 1 DATE STARTED 05-19-83 DATE COMPLETED 05-19-83 JOB 19,6

ELEVATIONS

TOP OF PVC CASING 797.73

END OF BORING

STATION: 1+80 S 13+35 W P1

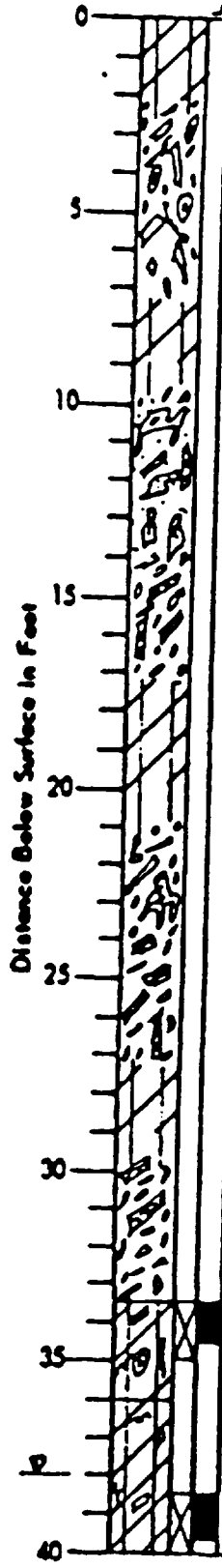
WATER TABLE

AT END OF BORING

24 HOURS

WHILE DRILLING 38.0'

SHEET 1 of 2



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
									FILL - Refuse with layers of silty Clay
	1	SS	16				33.5		FILL - Gray silty CLAY, trace refus
							36.0		FILL - Brown, gray and black silty CLAY with refuse
	2	SS	44						

PROJECT H. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC. 3003 Butterfield Road, Oak Brook, Illinois

BORING 1 DATE STARTED 05-19-83 DATE COMPLETED 05-19-83 JOB 1

ELEVATIONS

TOP OF PVC CASING

END OF BORING

STATION 1+80 S
13+35 W

WATER TABLE

AT END OF BORING

24 HOURS

WHILE DRILLING 38.0'

SHEET 2

Distance Below Surface in Feet	Length Recovery	Sample No.	Type	N	WC	Q_u	% DRY	Depth	Elev.	Soil Descriptions
40										FILL - Brown, gray & black si CLAY with REFUSE
								42.0		
45		3	SS	19						Gray silty CLAY, trace sand a gravel, moist
50										
55										
60										
65										
70										
75										
80										

END OF BORING AT 45.0'

BOTTOM OF PVC SCREEN: 43.0'
TOP OF PVC SCREEN: 13.0'
PEA GRAVEL BACKFILL FROM BOTTOM OF SCREEN TO 4.5'
CLAY BACKFILL FROM 4.5' TO 2.0'
CONCRETE FROM 2.0' TO SURFACE

TESTING SERVICE CORPORATION

PROJECT H. LANDFILL, ANTIOCH, ILLINOIS

CLIENT WA & AMANGEMENT, INC. 3003 Butte eld Road, Oak Brook, Illinois

BORING 8 DATE STARTED 05-20-83 DATE COMPLETED 05-20-83 JOB 19

ELEVATIONS

TOP OF PVC CASING 796.23

END OF BORING

STATION: 6+50 S 5+00 W

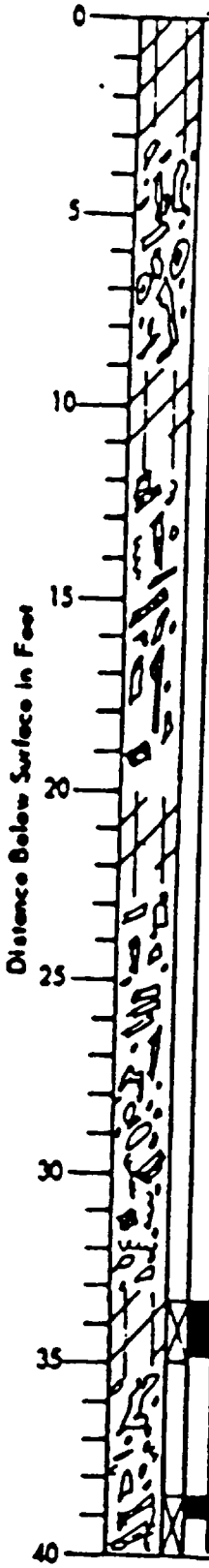
WATER TABLE

AT END OF BORING

24 HOURS

WHILE DRILLING 42.0'

SHEET 1 of 2



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
									FILL - REFUSE with layers of silty clay.
	1	SS	23						
	2	SS	100/6"						

TESTING SERVICE CORPORATION

PROJECT H.O.P[illegible]NDFILL, ANTIOCH, ILLINOIS

CLIENT WAST[illegible] MANAGEMENT, INC. 3003 Butter[illegible]ld Road, Oak Brook, Illi[illegible]

BORING 8 DATE STARTED 05-20-83 DATE COMPLETED 05-20-83 JOB 19,

ELEVATIONS

TOP OF PVC CASING 796.23

END OF BORING

WATER TABLE

AT END OF BORING

24 HOURS

WHILE DRILLING 42.0'

STATION: 6+50 S
5+00 W

SHEET 2 o

LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							41.0		FILL - REFUSE with layers of sil CLAY.
	3	SS	17						Gray silty CLAY, trace sand an gravel, moist

END OF BORING AT 43.5'

BOTTOM OF PVC SCREEN: 43.0'
TOP OF PVC SCREEN: 13.0'
PEA GRAVEL BACKFILL FROM BOTTOM OF SCREEN TO 4.0'
CLAY BACKFILL FROM 4.0' TO 2.0'
CONCRETE FROM 2.0' TO SURFACE

Distance Below Surface in Feet: 40, 45, 50, 55, 60, 65, 70, 75, 80

TESTING SERVICE CORPORATION

DRILL RIG NO. ATV

PROJECT H.O.' LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC. 3003 Butterfield Road, Oak Brook, Illinois

BORING 9 DATE STARTED 05-20-83 DATE COMPLETED 05-20-83 JOB 19,6

ELEVATIONS

TOP OF PVC CASING 796.93

END OF BORING

STATION: 6+50 S 10+00 W P9

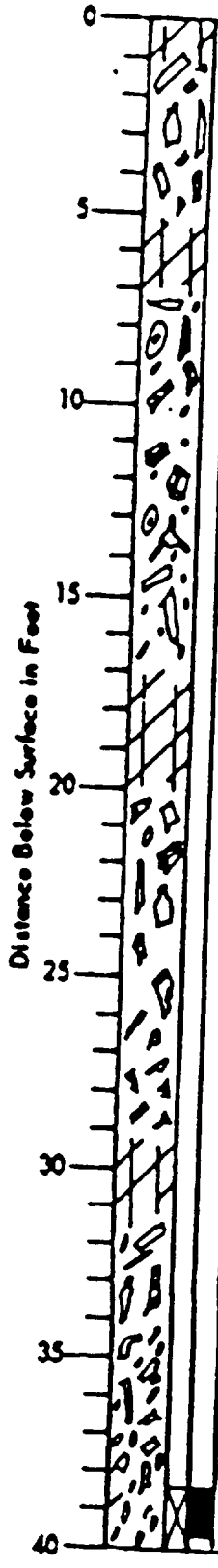
WATER TABLE

AT END OF BORING

24 HOURS

WHILE DRILLING 42.0'

SHEET 1 of 2



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
									FILL - REFUSE with layers of silty Clay.
	1	SS	19						

TESTING SERVICE CORPORATION

PROJECT ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC. 3003 Butterfield Road, Oak Brook, Illinc

BORING 9 DATE STARTED 05-20-83 DATE COMPLETED 05-20-83 JOB 1

ELEVATIONS

TOP OF PVC CASING 796.93

END OF BORING

STATION: 6+50 S
10+00 W

WATER TABLE

AT END OF BORING

24 HOURS

WHILE DRILLING 42.0'

SHEET 2

LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
	2	SS	15						Gray silty CLAY, trace sand and gravel, moist

END OF BORING AT 43.5'

BOTTOM OF PVC SCREEN: 43.0'
TOP OF PVC SCREEN: 13.0'
PEA GRAVEL BACKFILL FROM BOTTOM OF SCREEN TO 4.0'
CLAY BACKFILL FROM 4.0' TO 2.0'
CONCRETE FROM 2.0' TO GROUND SURFACE

Distance Below Surface in Feet: 40, 45, 50, 55, 60, 65, 70, 75, 80

TESTING SERVICE CORPORATION

PROJECT H LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC. 3003 Butterfield Road, Oak Brook, Illinois

BORING 10 DATE STARTED 05-23-83 DATE COMPLETED 05-23-83 JOB 19.6

ELEVATIONS

TOP OF PVC CASING 795.06

END OF BORING

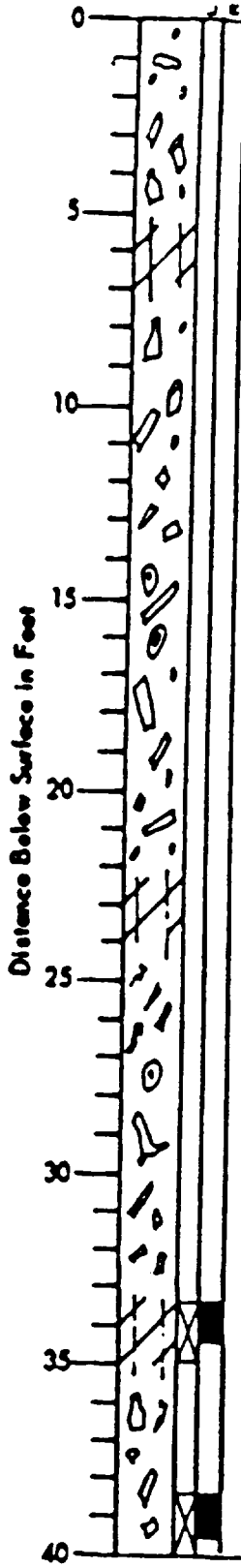
WATER TABLE

AT END OF BORING

24 HOURS

STATION: 7+50 S 14+50 W P10

SHEET 1 of 2



LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
									FILL - REFUSE with layers of silty Clay.
	1	SS	16						
	2	SS	10						

PROJECT H.O.I LANDFILL, ANTIOCH, ILLINOID

CLIENT WASTE MANAGEMENT, INC. 3003 Butterfield Road, Oak Brook, Illinois

BORING 10 DATE STARTED 05-23-83 DATE COMPLETED 05-23-83 JOB 1

ELEVATIONS

TOP OF PVC CASING 795.06

END OF BORING

WATER TABLE

AT END OF BORING

24 HOURS

STATION: 7+50 S
14+50 W

SHEET 2

Distance Below Surface in Feet	LENGTH	RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	% DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
40											FILL - REFUSE with layers of si Clay
									43.0		Gray silty CLAY, trace sand and gravel, moist
45											
50											
55											
60											
65											
70											
75											
80											

END OF BORING AT 45.0'

BOTTOM OF PVC SCREEN: 43.0'
TOP OF PVC SCREEN: 13.0'
PEA GRAVEL BACKFILL FROM BOTTOM OF SCREEN TO 4.0
CLAY BACKFILL FROM 4.0' TO 2.0'
CONCRETE FROM 2.0' TO GROUND SURFACE

PROJECT H O D LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT INC., 1300 WILLOW R, NORTHBROOK, ILLINOIS 6006

BOR.NO 1+80S, 10+00W DATE STARTED 9-17-84 DATE COMPLETED 9-18-84 JOB 20

ELEVATIONS

GROUND SURFACE 795.1

END OF BOR.NO 720.1

WATER TABLE

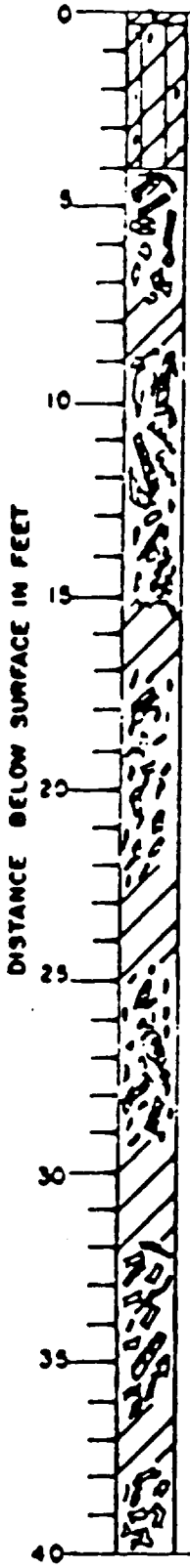
AT END OF BOR.NO

24 HOURS

WHILE DRILLING

P2A

SHEET 1 OF 3



LENGTH RECOVERED	SAMPLE NO	SAMPLE TYPE	N	WC	Q_u	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							3"	794.8	FILL: Black clayey TOPSOIL
							4.0	691.1	FILL: Brown silty CLAY, trace sand and gravel
									REFUSE with thin layers of silty clay

DISTANCE BELOW SURFACE IN FEET: 0, 5, 10, 15, 20, 25, 30, 35, 40

TESTING SERVICE CORPORATION

DRILL RIG NO 103

BORING LOG CONTINUE

PROJECT H O D LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT INC., 1300 WILLOW ROA NORTHBROOK, ILLINOIS 6006

BORING 1+80S, 10+00W DATE STARTED 9-17-84 DATE COMPLETED 9-18-84 JOB

ELEVATIONS

GROUND SURFACE 795.1

END OF BORING 720.1

WATER TABLE

AT END OF BORING

24 HOURS

SHEET 2 o

Distance Below Surface in Feet	Length Recovery	Sample No.	Type	N	WC	Q_u	γ DRY	Depth	Elev.	Soil Descriptions
40										
45										
50										REFUSE with thin layers of silty clay
55		1	SS	60						
60		2	SS	110						
65		3	SS	50/3"						
70		4	SS	90						
								72.5	722.6	Gray silty CLAY, trace sand and gravel, moist (CL)
75		5	SS	27						
80										

End of Boring at - 75.0 Feet

TESTING SERVICE CORPORATION

DRILL RIG NO. 103

BORING LOG CONTINUE

PROJECT H O D LANDFILL, ANTIOCH, ILLINOIS

CLIENT WAST MANAGEMENT, INC., 1300 WILLOW D, NORTHBROOK, ILLINOIS 6006

BORING 1+80S, 10+00W DATE STARTED 9-17-84 DATE COMPLETED 9-18-84 JOB 20,8

ELEVATIONS

GROUND SURFACE 795.1

END OF BORING 720.1

WATER TABLE

AT END OF BORING

24 HOURS

WHILE DRILLING

SHEET 3 OF 3

LENGTH RECOVERY	SAMPLE NO	SAMPLE TYPE	N	WC	Q_u	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS

DISTANCE BELOW SURFACE IN FEET

INSTALLED LEACHATE COLLECTION WELL

1) Bottom of 65' screen at 71'6" (723.6)
2) Small gravel backfill from bottom of hole to 4.5'
3) Bentonite pellets from 4.5 to 3.5'
4) Portland cement grout with bentonite from 3.5' to surface
5) Steel protector pipe set in grout
6) Elevation of top of steel protector pipe: 798.00 (Lid open
7) Total length of PVC (screen & solid): 74'0"

TESTING SERVICE CORPORATION

DRILL RIG NO.

PROJECT H O D LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 1300 WILLOW RD, NORTHBROOK, ILLINOIS 60

BOR.NO 1+80S, 5+05W DATE STARTED 9-19-84 DATE COMPLETED 9-21-84 JOB 20.

ELEVATIONS

GROUND SURFACE 792.4

END OF BOR.NO 717.4

WATER TABLE

AT END OF BORING

24 HOURS

WHILE DRILLING

P3A

SHEET 1 OF 3

LENGTH RECOVERY	SAMPLE NO	SAMPLE TYPE	N	WC	Q_u	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							2"	792.2	FILL: Dark brown clayey TOPS
									FILL: Brown silty CLAY, tra sand and gravel
							5.5	786.9	
									REFUSE with thin layers of silty clay

DISTANCE BELOW SURFACE IN FEET: 0, 5, 10, 15, 20, 25, 30, 35, 40

TESTING SERVICE CORPORATION

DRILL RIG NO. 103

BORING LOG CONTINUE

PROJECT H O D LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 1300 WILLOW D, NORTHBROOK, ILLINOIS 60062

BORING 1+80S, 5-05W DATE STARTED 9-20-84 DATE COMPLETED 9-21-84 JOB 20,

ELEVATIONS

GROUND SURFACE 792.4

END OF BORING 717.4

WATER TABLE

AT END OF BORING

24 HOURS

SHEET 2 of

Distance Below Surface in Feet	LENGTH RECOVERY	SAMPLE NO.	TYPE	N	WC	Q_u	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
40										
45										
50										
55										REFUSE with thin layers of silty clay
60										
65										
70								72.0	720.4	
		1	SS	39	17.6	3.75*				Very tough gray silty CLAY, tr sand and gravel, moist (CL)
75										
				End of Boring at - 75.0 Feet						
80										

*Approximate unconfined compressio strength based on measurements wi a calibrated pocket penetrometer.

TESTING SERVICE CORPORATION

DRILL RIG NO. 103

BORING LOG CONTINUED

PROJECT H O D LANDFILL, ANTIOCH, ILLINOIS

CLIENT WASTE MANAGEMENT, INC., 1300 WILLOW R , NORTHBROOK, ILLINOIS 60

BOR.NO 1+80S, 5+05W DATE STARTED 9-20-84 DATE COMPLETED 9-21-84 JOB 2C

ELEVATIONS

GROUND SURFACE 792.4

END OF BORING 717.4

WATER TABLE

AT END OF BORING

24 HOURS

WHILE DRILLING

SHEET 3 OF 3

LENGTH RECOVERY	SAMPLE NO	SAMPLE TYPE	N	WC	Q_u	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS

DISTANCE BELOW SURFACE IN FEET

INSTALLED LEACHATE COLLECTION WELL

1). Bottom of 65' screen at 72'7" (719.8)

2). Small gravel backfill from bottom of hole to 5.0'

3). Bentonite pellets from 5.0' to 4.0'

4). Portland cement grout with bentonite from 4.0' to surface

5). Steel protector pipe set in grout

6). Elevation of top of steel protector pipe: 795.06 (Lid ope

7). Total length of PVC (screen + solid): 74'11"

TESTING SERVICE CORPORATION

DRILL RIG NO. 103

C7

TESTING SERVICE CORPORATION, 1989-1990
(B1-B75)

TSC
TESTING SERVICE CORPORATION

Subsurface Exploration
Geotechnical Engineering
Construction Materials Engineering & Testing
Environmental Engineering
Geosciences & Hydrogeologic Studies
Monitoring Wells

February 21, 1991

WARZYN
FILE COPY
JOB #
NAME
CATEGORY
DESCRIPTION
SUBMITTED BY

WASTE MANAGEMENT OF NORTH AMERICA, INC.
Midwest Region
Two Westbrook Corporate Center
Suite 1000
Westchester, Illinois 60153

Attention: Mr. March Smith

RE: L - 27,306
H.O.D. LANDFILL
Antioch, Illinois

Dear Mr. Smith:

TESTING SERVICE CORPORATION (TSC) has completed the work included in making shallow probes of final cover material placed across the entire site at H.O.D. Landfill. The probes were made for the purpose of determining the thickness of the final cover. Several visits to this site were made between July, 1989, and February, 1991, at which time a total of 75 cover probes were made.

The probes were placed on a grid pattern with 200 foot spacings north to south and 150 feet east to west. This allowed for a drilling density of approximately one probe for every 30,000 square feet or three-quarters of an acre. This was done to achieve random samples and yet obtain representative coverage of the final cover over the entire site. The locations and recorded thicknesses of final cover are listed in Table 1 included with this correspondence. Also enclosed is a boring location plan. The probes are numbered B-1 through B-75.

The probes were made according to currently recommended American Society for Testing and Materials procedures. The work was performed using hand auger equipment or with a truck mounted drill rig. When using the truck mounted drill rig, the probes were drilled using solid stem auger and samples were obtained with a split spoon sampling device. The samples were taken solely for the purpose of identifying the final cover and were discarded once they were identified and described. At the completion of drilling, the boreholes were sealed to ground surface with hydrated sodium bentonite pellets.

A minimum thickness of 4.0 feet has been established for the final cover at this site based on requirements of the operating permit and the corporate policy of Waste Management. To document this thickness, the probes were advanced until either a full 4.0 feet of final cover had been sampled or refuse was encountered. Final cover depths in excess of 4.0 feet were not documented. The field work was supervised by a geologist from Testing Service Corporation.

The results of the probes are listed in Table 1 included with this correspondence. The table shows that all 75 locations contained a minimum 4.0 feet of final cover material.

It has been a pleasure to assist you with this work. Please call if there are any questions or when we can be of further service.

Respectfully submitted,

TESTING SERVICE CORPORATION

Wayne W. Moky

Wayne W. Moky
President and
Registered Professional Engineer
Illinois No. 35768

WWM:JEM:kw

Enclosures: Table 1
Boring Location Plan

Prepared by:

Jane E. Matheney

Jane E. Matheney
Project Geologist

TABLE 1

H.O.D. LANDFILL

ANTIOCH, ILLINOIS

FINAL COVER PROBES

COVER PROBE NUMBER	LOCATION	COVER THICKNESS (FEET)
1	1+00S/25+50W	4.0 +
2	1+00S/14+00W	4.0 +
3	1+00S/22+50W	4.0 +
4	1+00S/21+00W	4.0 +
5	1+00S/19+00W	4.0 +
6	3+00S/19+00W	4.0 +
7	3+00S/20+50W	4.0 +
8	3+00S/22+00W	4.0 +
9	3+00S/23+50W	4.0 +
10	3+00S/25+00W	4.0 +
11	5+00S/18+00W	4.0 +
12	5+00S/19+50W	4.0 +
13	5+00S/21+00W	4.0 +
14	5+00S/22+50W	4.0 +
15	5+00S/24+00W	4.0 +
16	7+00S/18+00W	4.0 +
17	6+00S/24+00W	4.0 +
18	6+00S/22+50W	4.0 +
19	6+00S/25+00W	4.0 +
20	7+50S/25+50W	4.0 +
21	9+00S/25+50W	4.0 +
22	10+50S/25+50W	4.0 +
23	11+50S/25+50W	4.0 +
24	10+50S/24+40W	4.0 +
25	12+00S/23+00W	4.0 +
26	12+35S/23+00W	4.0 +
27	12+35S/21+50W	4.0 +
28	12+35S/20+00W	4.0 +
29	9+00S/24+40W	4.0 +
30	10+65S/23+20W	4.0 +
31	10+65S/21+50W	4.0 +
32	10+65S/20+00W	4.0 +
33	9+40S/20+00W	4.0 +
34	9+40S/21+50W	4.0 +
35	9+40S/23+20W	4.0 +
36	0+50S/17+00W	4.0 +
37	0+50S/15+50W	4.0 +
38	0+50S/14+00W	4.0 +
39	0+50S/12+50W	4.0 +
40	0+50S/11+00W	4.0 +

(TABLE 1 CON'T)

COVER PROBE NUMBER	LOCATION	COVER THICKNESS (FEET)
41	0+50S/09+50W	4.0 +
42	0+50S/08+00W	4.0 +
43	0+50S/06+50W	4.0 +
44	0+50S/05+00W	4.0 +
45	2+50S/05+00W	4.0 +
46	2+50S/06+50W	4.0 +
47	2+50S/08+00W	4.0 +
48	2+50S/09+50W	4.0 +
49	2+50S/11+00W	4.0 +
50	2+50S/12+50W	4.0 +
51	2+50S/14+00W	4.0 +
52	2+50S/15+50W	4.0 +
53	2+50S/17+00W	4.0 +
54	4+50S/17+00W	4.0 +
55	4+50S/15+50W	4.0 +
56	4+50S/14+00W	4.0 +
57	4+50S/12+50W	4.0 +
58	4+50S/11+00W	4.0 +
59	4+50S/09+50W	4.0 +
60	4+50S/08+00W	4.0 +
61	4+50S/06+50W	4.0 +
62	4+50S/05+00W	4.0 +
63	6+50S/05+00W	4.0 +
64	6+50S/06+50W	4.0 +
65	6+50S/08+00W	4.0 +
66	6+50S/09+50W	4.0 +
67	6+50S/11+00W	4.0 +
68	6+50S/12+50W	4.0 +
69	6+50S/14+00W	4.0 +
70	6+50S/15+50W	4.0 +
71	6+50S/17+00W	4.0 +
72	8+50S/17+00W	4.0 +
73	8+50S/15+50W	4.0 +
74	8+50S/14+00W	4.0 +
75	8+00S/12+50W	4.0 +

S 1,500

NTOUR

CONTOUR

COLLECTION MANHOLE

OBE

NOTE

THIS PLAN WAS DEVELOPED TO PROVIDE
A MINIMUM 4' COVER OF COMPACTED CLAY.

H.O.D. LANDFILL CLOSURE PROJECT
CONTRACT DRAWING NO. 2

S 2,000

REV	DATE	DESCRIPTION	DR BY	APP BY
			SRF	CML
	5/89	CONTRACT DRAWINGS		

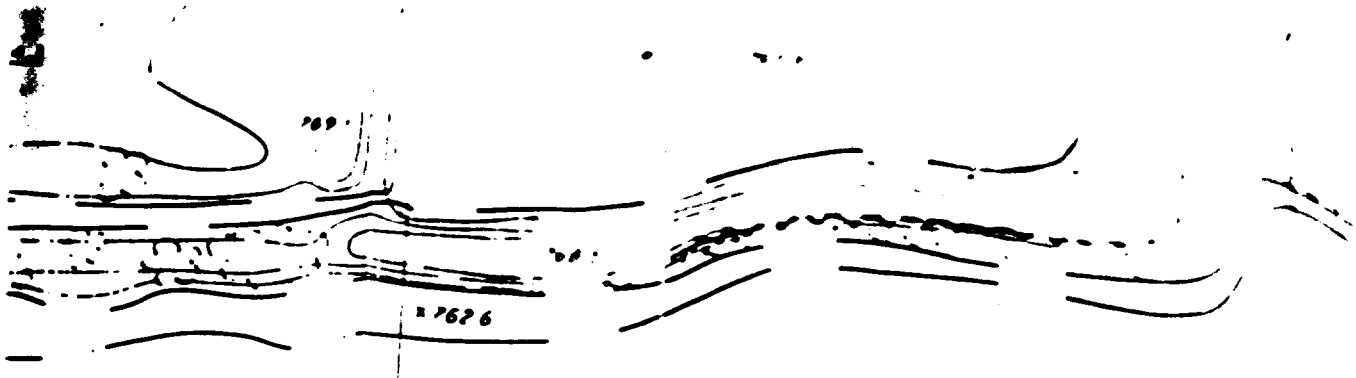
DES BY	TAJ	TAJ	PROJECT NO 171CO	DATE MARCH 1989
DRN BY	WWD	WWD	PROJECT H.O.D. 30 ACRE LANDFILL GRADING PLAN	
CHK BY	AJO	AJO		
ERV BY	JR	JR	SHEET TITLE	
GRV BY	JPD	JPD	FINAL GRADES	
APP BY	CML	CML		

Waste Management of North America, Inc.
Oak Brook, Illinois 60521

SHEET 1 OF 1

SHEET NO 1

A.A.S.C. 2144



LEGEND

780 — EXISTING CONTOUR

780 — PROPOSED CONTOUR

LEACHATE COLLECTION MANHOLE

B-9 COVER PROBE

NOTE

THIS PLAN WAS
A MINIMUM 4' C

H.O.D. LANDFILL
CONTRACT DRAW

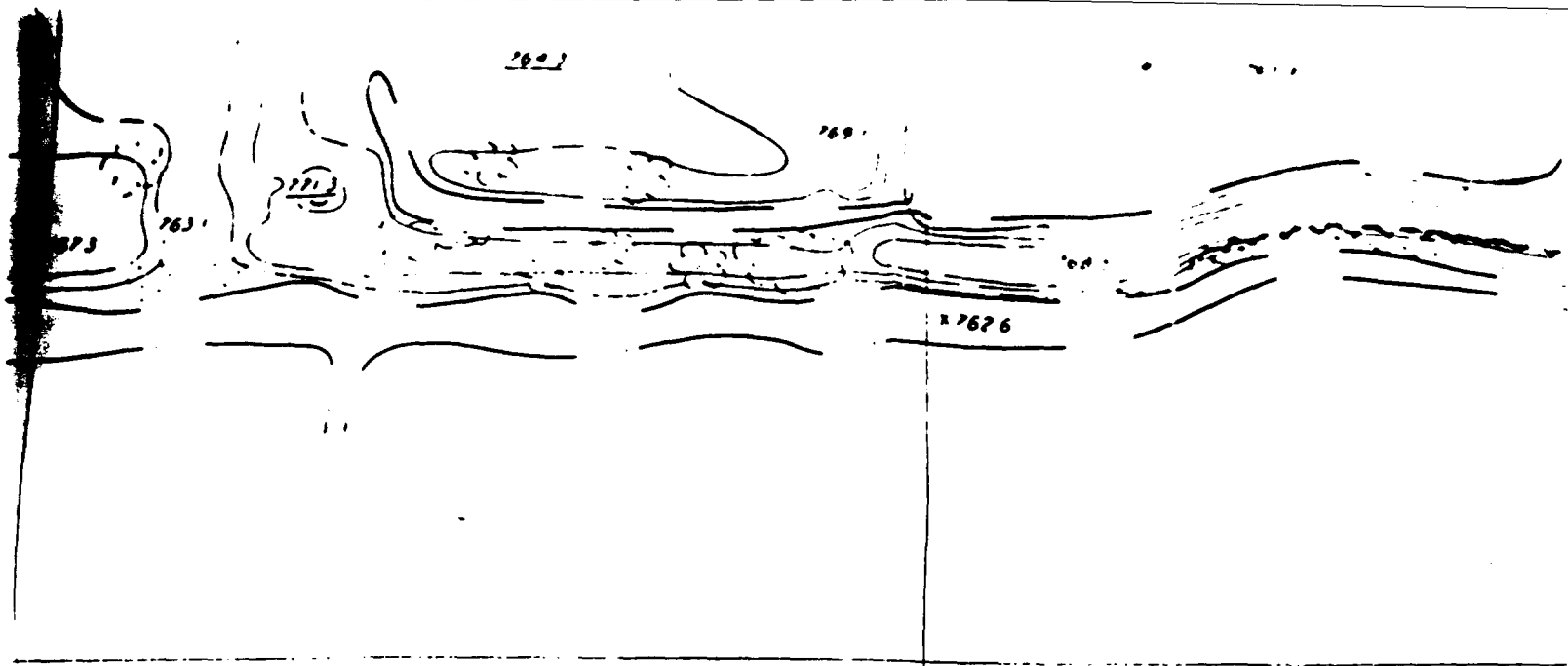
S 2,000

-N-

CORPORATION
RSEN DRIVE
LINOIS 60188
L-27,306

	5/89	CONTRACT DRAWINGS	
REV	DATE	DESCR	
DES BY	TAJ	TAJ	PROJECT NO
DRN BY	WWD	WWD	PROJECT
CHK BY	AJO	AJO	
ERV BY	JR	JR	SHEET TITLE
GRV BY	JPD	JPD	
APP BY	CML	CML	

Waste Mana
of North Ame
Oak Brook, Illino



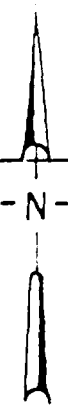
LEGEND

780 — EXISTING CONTOUR

750 — PROPOSED CONTOUR

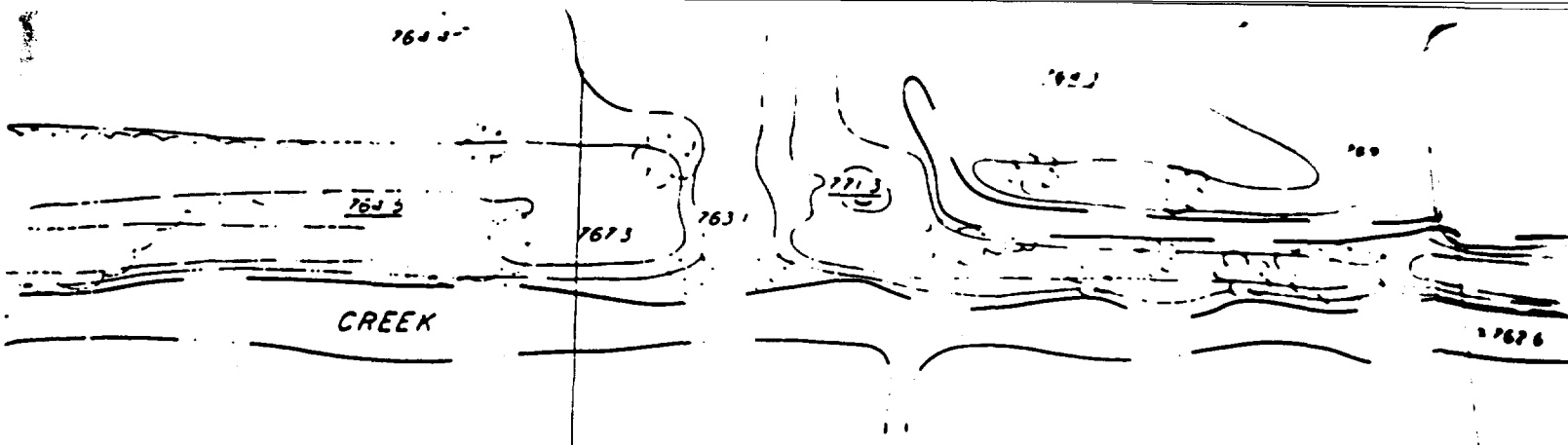
○ LEACHATE COLLECTION

● B-9 COVER PROBE



S 2,000

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188
AUGUST 3, 1990 L-27,306



CT LEGEND

FILL AREA LIMITS

EXISTING ROADWAY-LEFT IN PLACE

EXISTING ROADWAY-SPECIAL EXCAVATION AND DISPOSAL

AGGREGATE BASE COURSE-TYPE A

CMP CULVERT INSTALLATION LOCATION

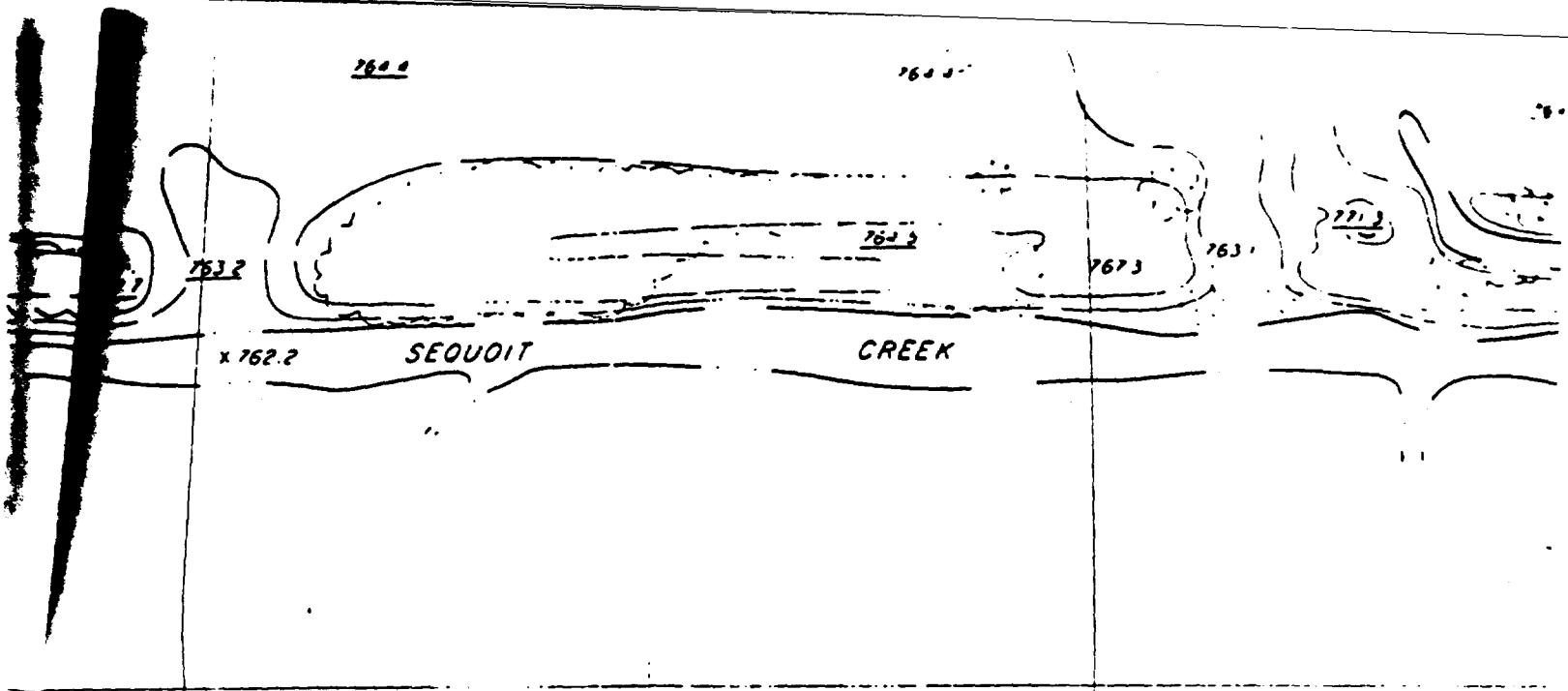
EQUIPMENT ACCESS ROUTES

100 200 300

CONTOUR INTERVAL 2'

PHOTOGRAPHY 5-27-87

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188
AUGUST 3, 1990 L-27,306



CONTRACT LEGEND

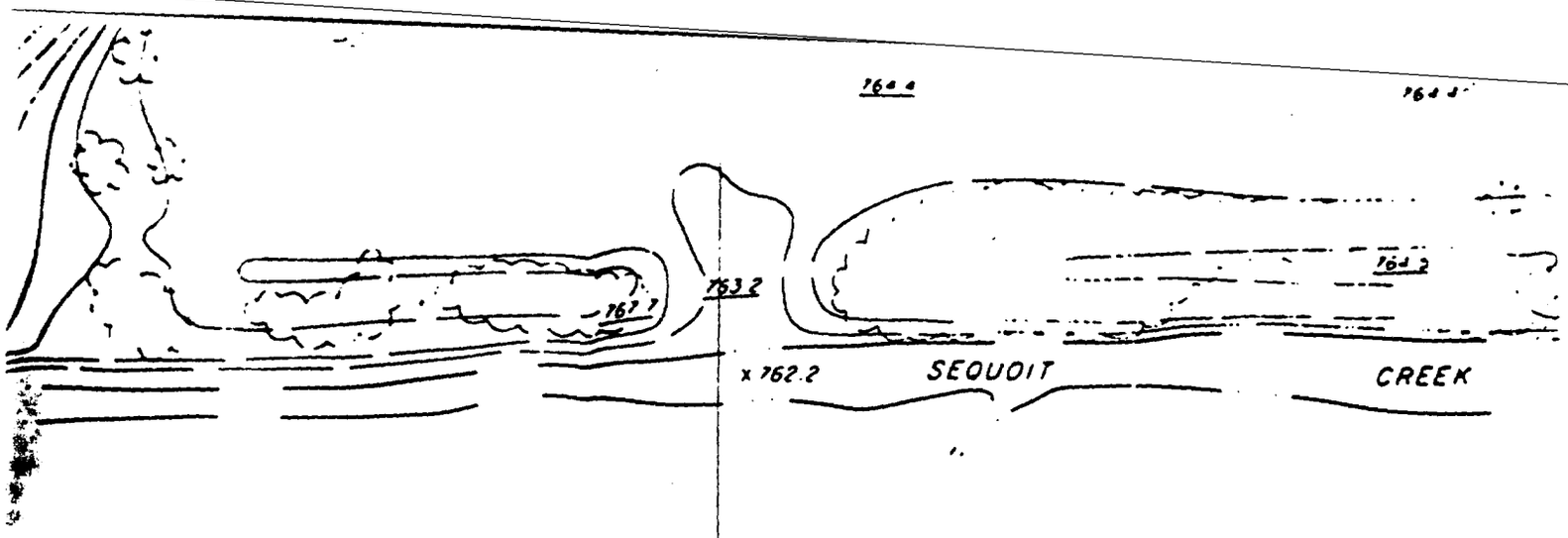
- FILL AREA LIMITS
- EXISTING ROADWAY-LEFT IN PLACE
- EXISTING ROADWAY-SPECIAL EXCAVATION AND DISPOSAL
- AGGREGATE BASE COURSE-TYPE A
- CMP CULVERT INSTALLATION LOCATION
- EQUIPMENT ACCESS ROUTES

100 0 100 200 300

SCALE 1" = 300' CONTOUR INTERVAL 2'

DATE OF PHOTOGRAPHY 5-27-87

TESTING SE
457 EAST
CAROL STRE
AUGUST 3, 1



CATION OF FINAL COVER PROBES
WEST HALF DRILLED JULY, 1989
EAST HALF DRILLED JULY, 1990

CONTRACT LEGEND

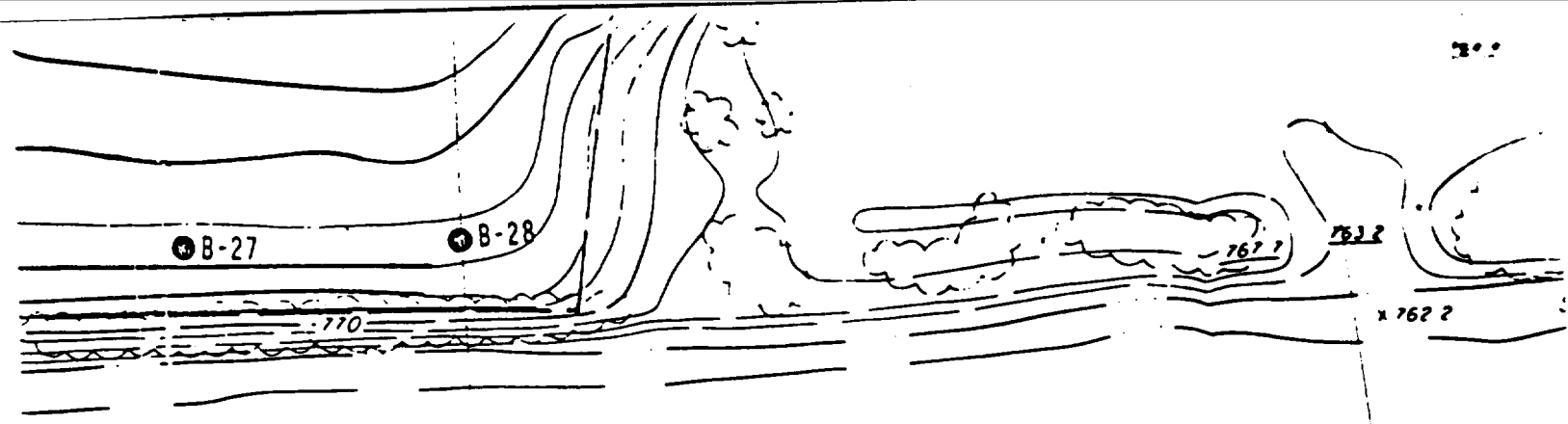
- FILL AREA LIMITS
- EXISTING ROADWAY-LEFT IN PLACE
- EXISTING ROADWAY-SPECIAL EXCAVATION AND DISPOSAL
- AGGREGATE BASE COURSE-TYPE
- CMP CULVERT INSTALLATION LOC
- EQUIPMENT ACCESS ROUTES

100 0 100 200

SCALE 1" = 100'

CONTOUR INTERV

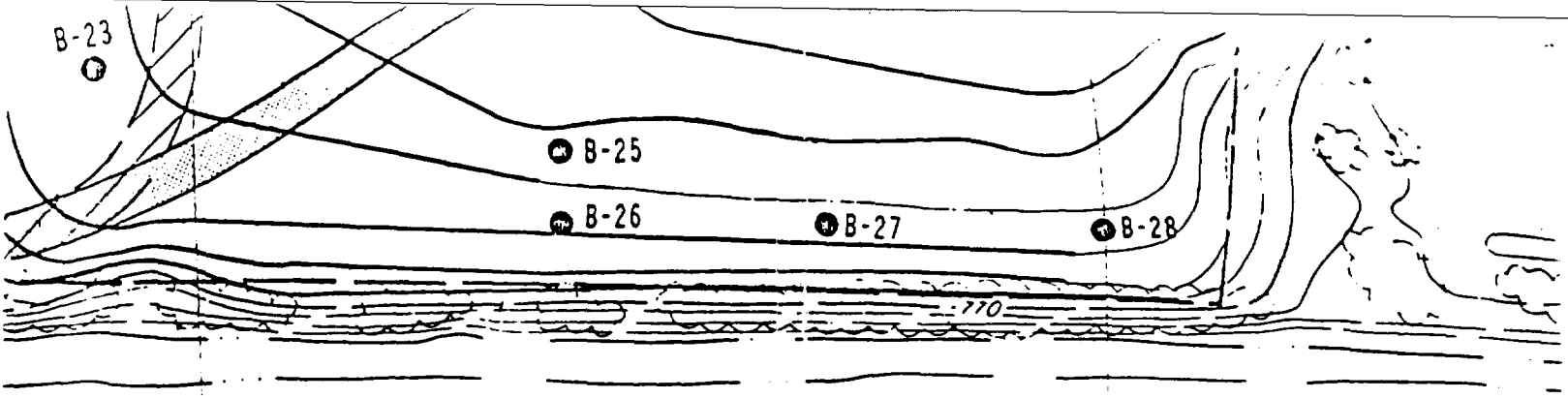
DATE OF PHOTOGRAPHY 5-27-87



LOCATION OF FINAL COVER PROBES
WEST HALF DRILLED JULY, 1989
EAST HALF DRILLED JULY, 1990

100

ES NOT GUARANTEED IN OBSCURED AREAS SHOWN
ED CONTOURS AND UNDERLINED ELEVATIONS.

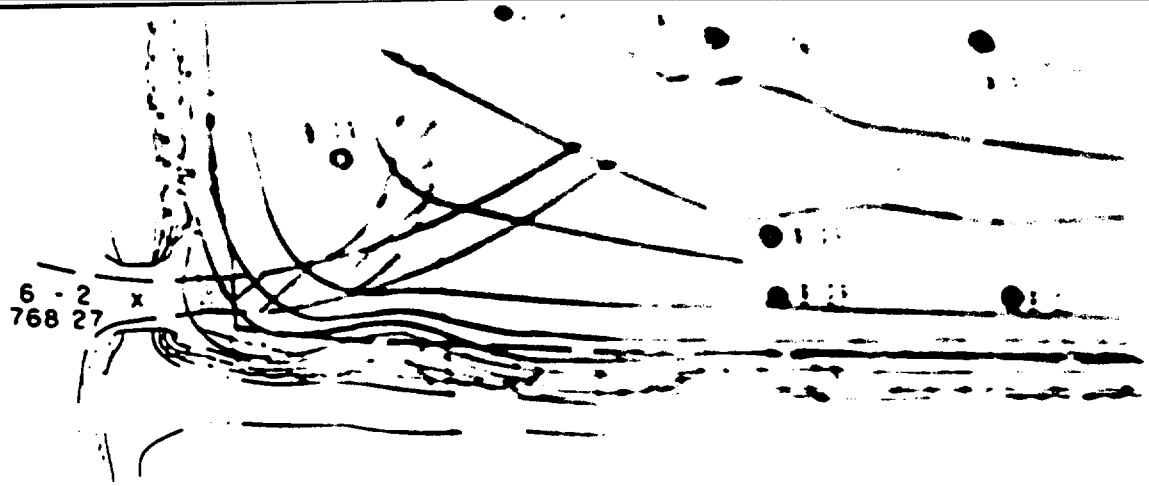


LOCATION OF FIN

WEST HALF DRIL

EAST HALF DRIL

ACCURACIES NOT GUARANTEED IN OBSCURED AREAS SHOWN BY DASHED CONTOURS AND UNDERLINED ELEVATIONS.



ABRAMS

AERIAL SURVEY CORPORATION
124 N. LARCH ST. LANSING, MICHIGAN 48933

ACCURACIES NOT GUARAN
BY DASHED CONTOURS A

ABRAMS

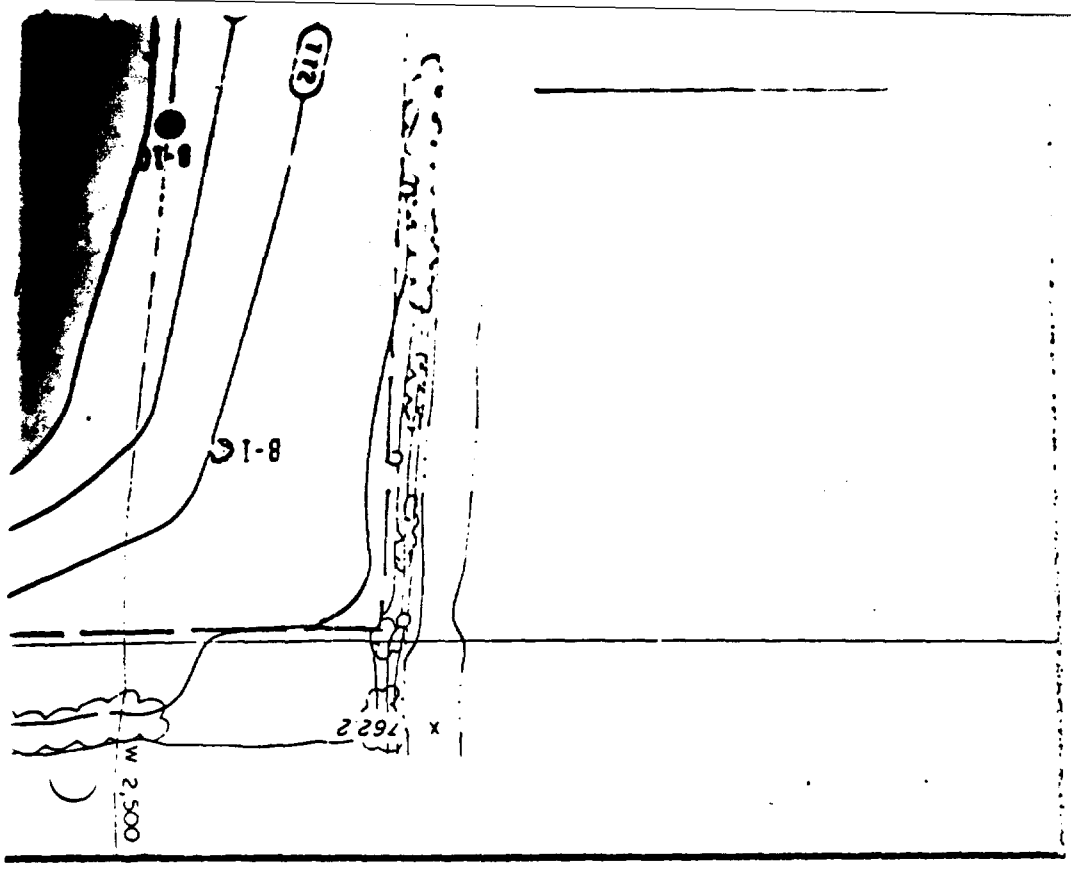
AERIAL SURVEY CORPORATION

124 N. LARCH ST. LANSING, MICHIGAN 48933

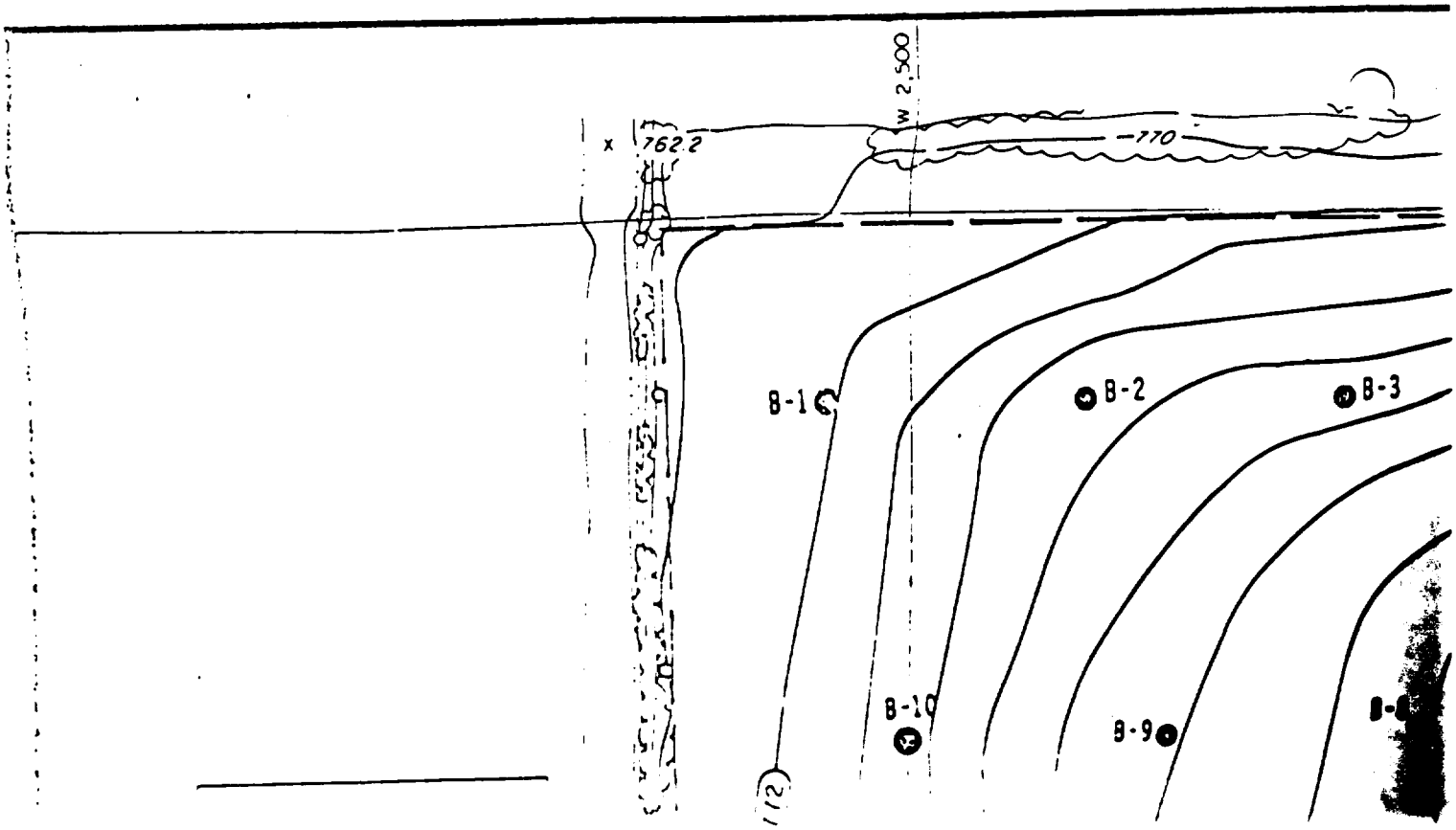
ABR

AERIAL S

124 N. LARCH S



112
8-1
8-1
762.2
W 2,500


W 2,500
762.2
770
B-1
B-2
B-3
B-10
B-9

W 2,000
W 2,500
B-4
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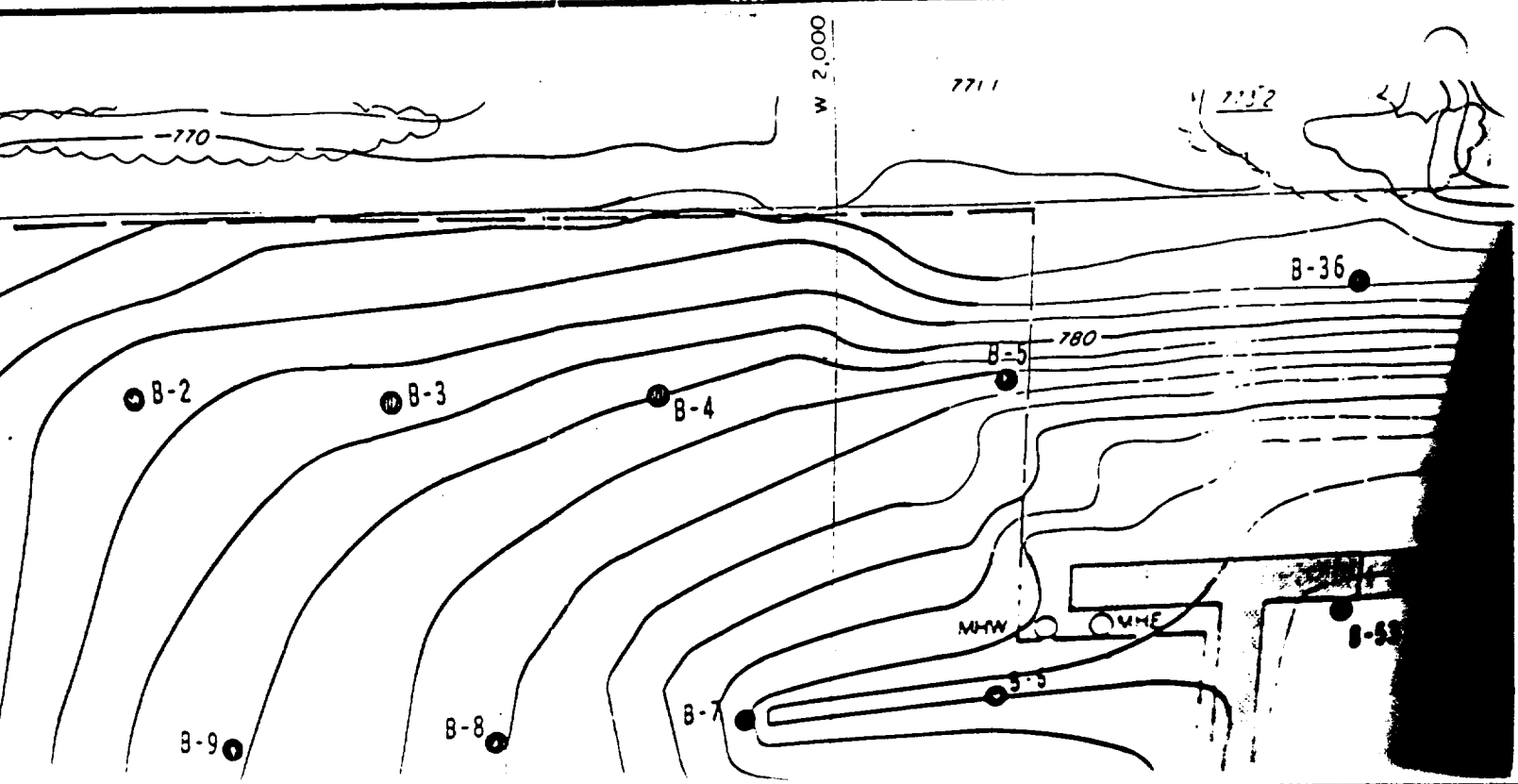
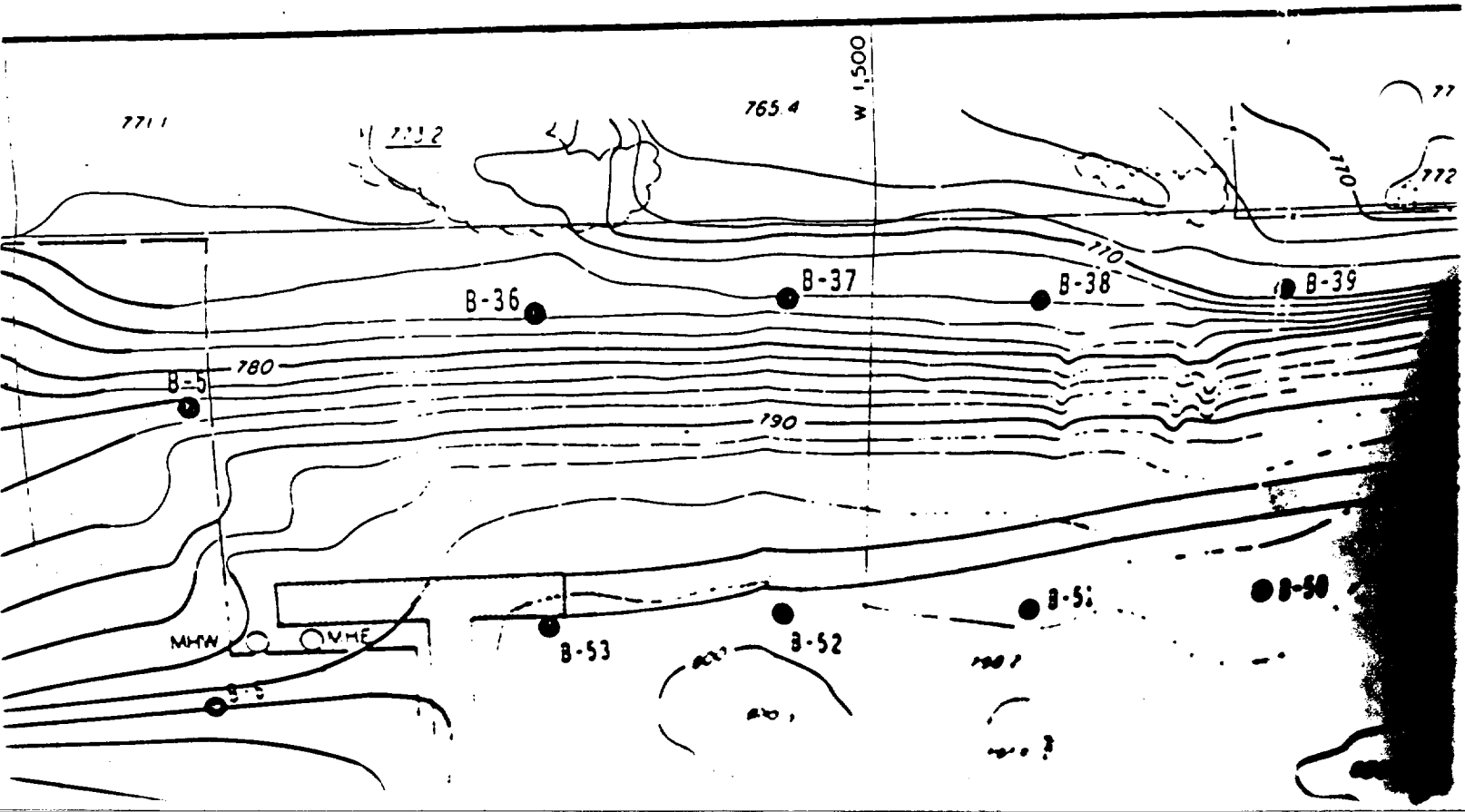
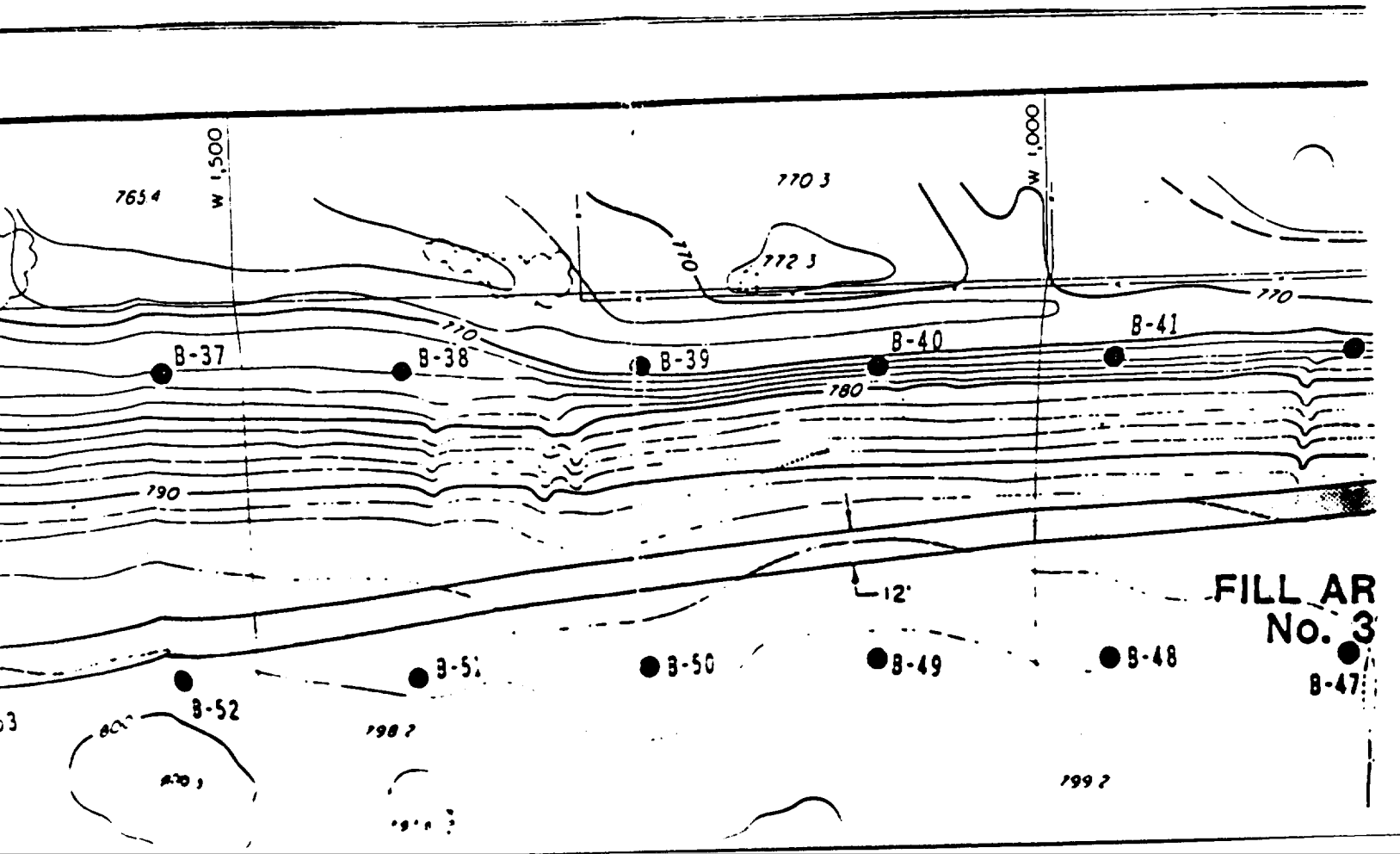
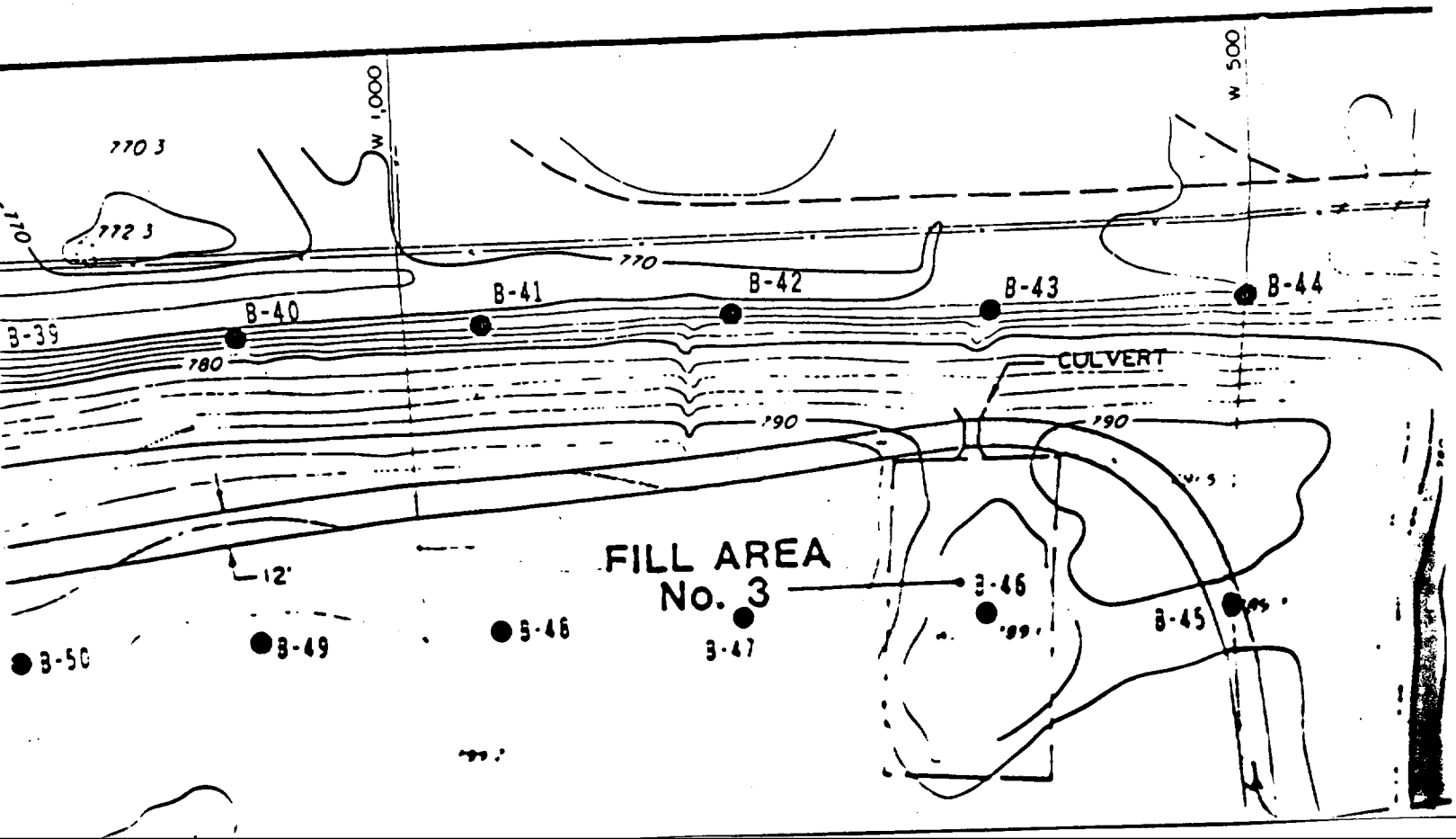
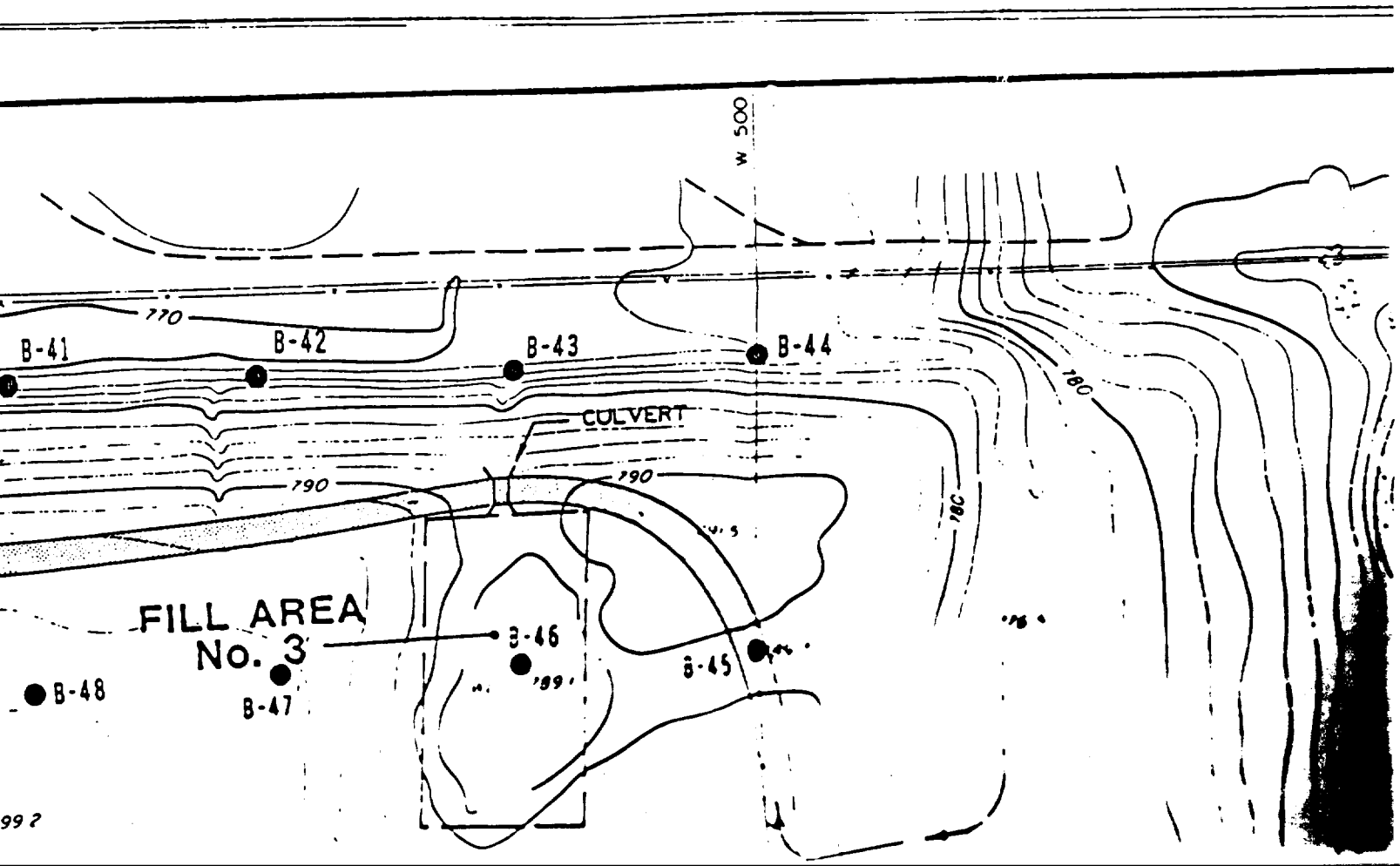
B-2
B-8
B-9
B-1
-770
-622

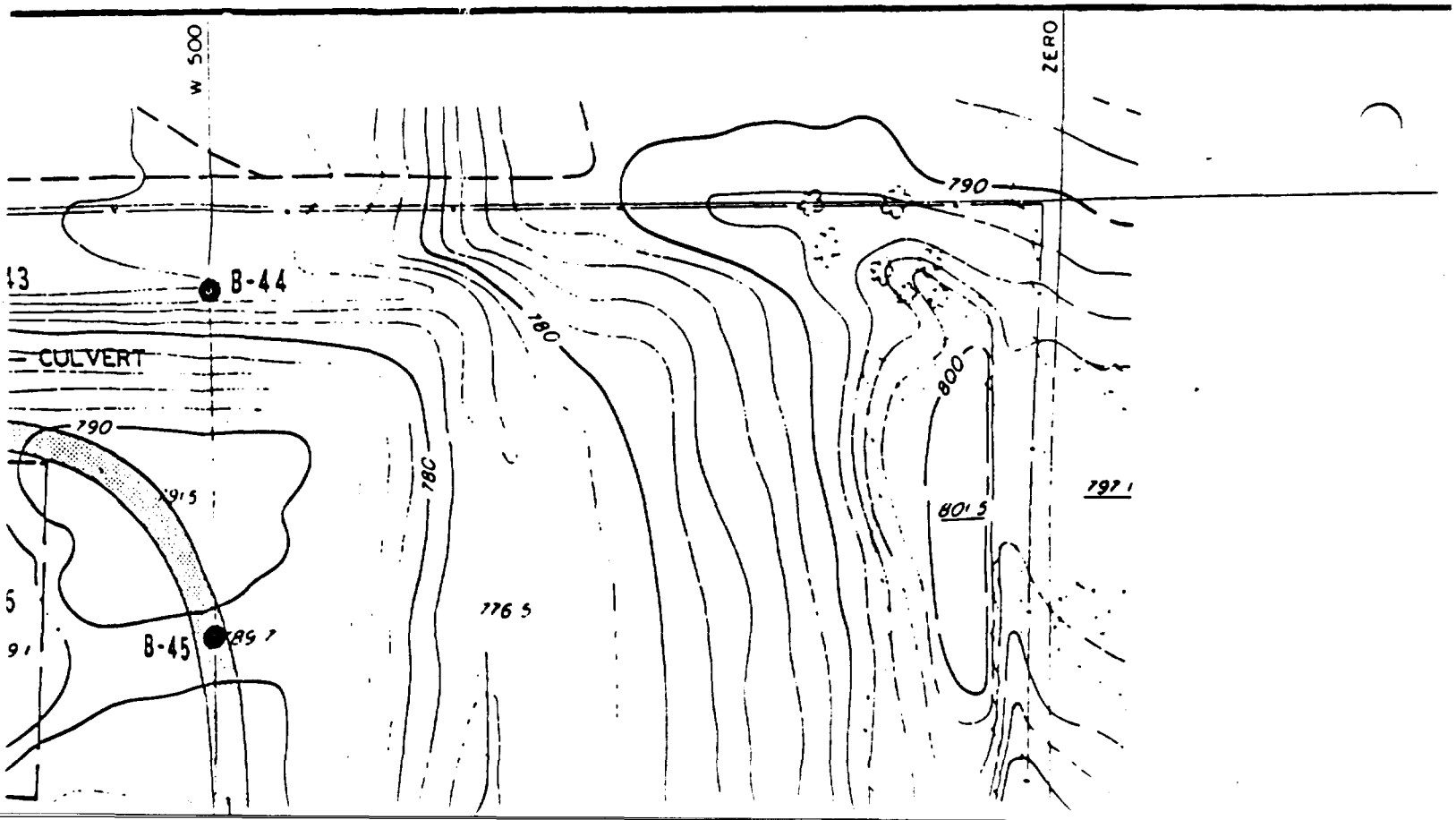

W 2,000
770
780
B-36
B-5
B-2
B-3
B-4
MHW
MHE
B-7
B-8
B-9

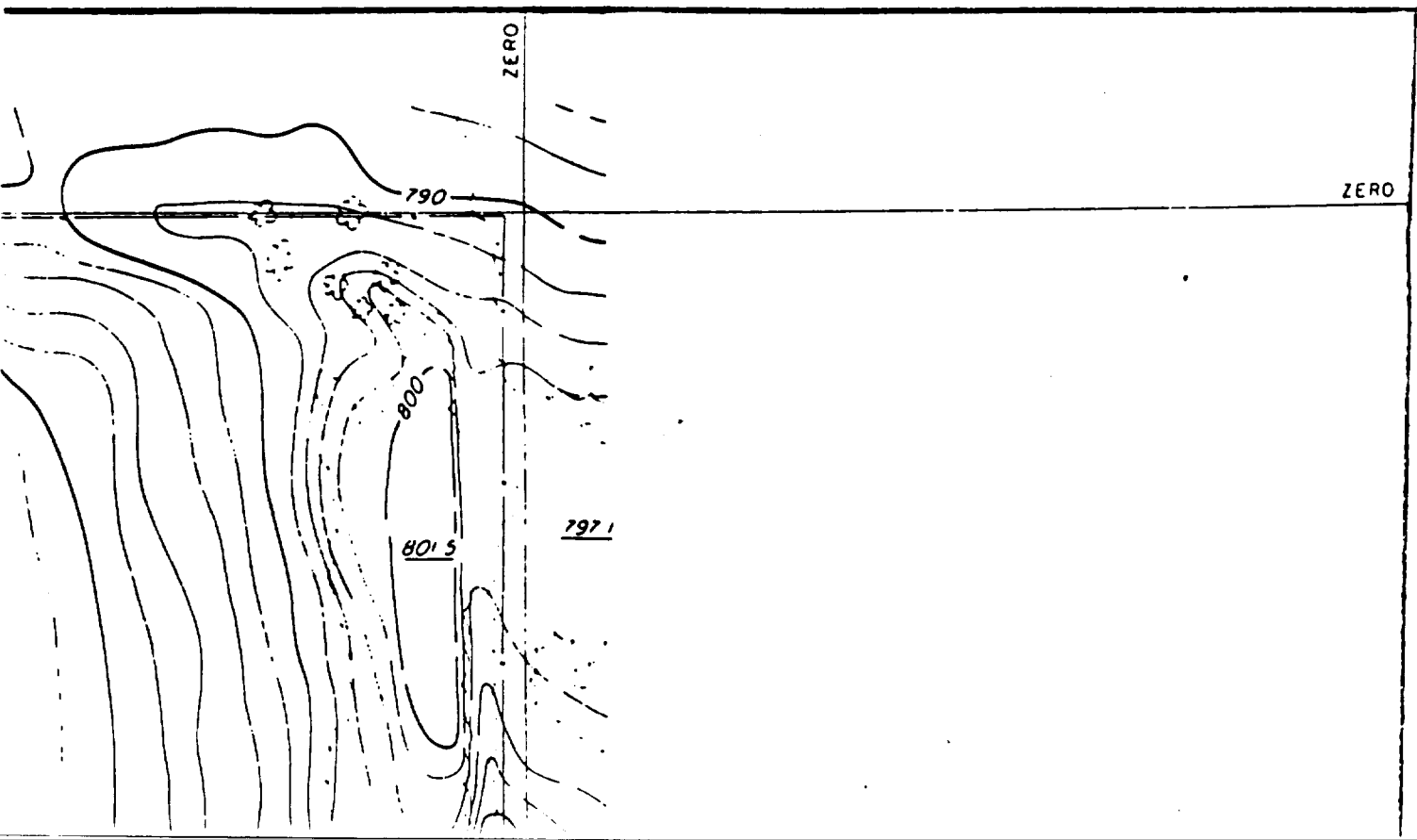

W 1,500
765.4
B-36
B-37
B-38
B-39
B-5
780
790
770
B-53
B-52
MHW
MHE


W 1,500
W 1,000
765.4
770.3
772.3
770
770
770
B-37
B-38
B-39
B-40
B-41
780
790
12'
FILL AR
No. 3
B-52
B-51
B-50
B-49
B-48
B-47
798.2
799.2


W 1,000
W 500
770 3
772 3
770
B-39
B-40
B-41
B-42
B-43
B-44
780
CULVERT
790
790
12'
FILL AREA
No. 3
B-46
B-45
B-50
B-49
B-48
B-47


W 500
770
B-41
B-42
B-43
B-44
CULVERT
790
790
780
FILL AREA
No. 3
B-46
B-45
B-48
B-47


W 500
ZERO
790
B-44
CULVERT
780
800
790
780
776 5
B-45
801 5
797 1


ZERO
ZERO
790
800
801.5
797.1

C8

KELLETT'S WELL BORING, INC., 1988
(GWF1-GWF14)

BRAUER LAND SURVEYING
residential · commercial · agricultural · land planning

5404 W. Elm St., Suite B
McHenry, Illinois 60050
815 / 385-1470

AUGUST 24, 1988

GRID LOCATION AND GROUND ELEVATIONS GAS WELL FLARES

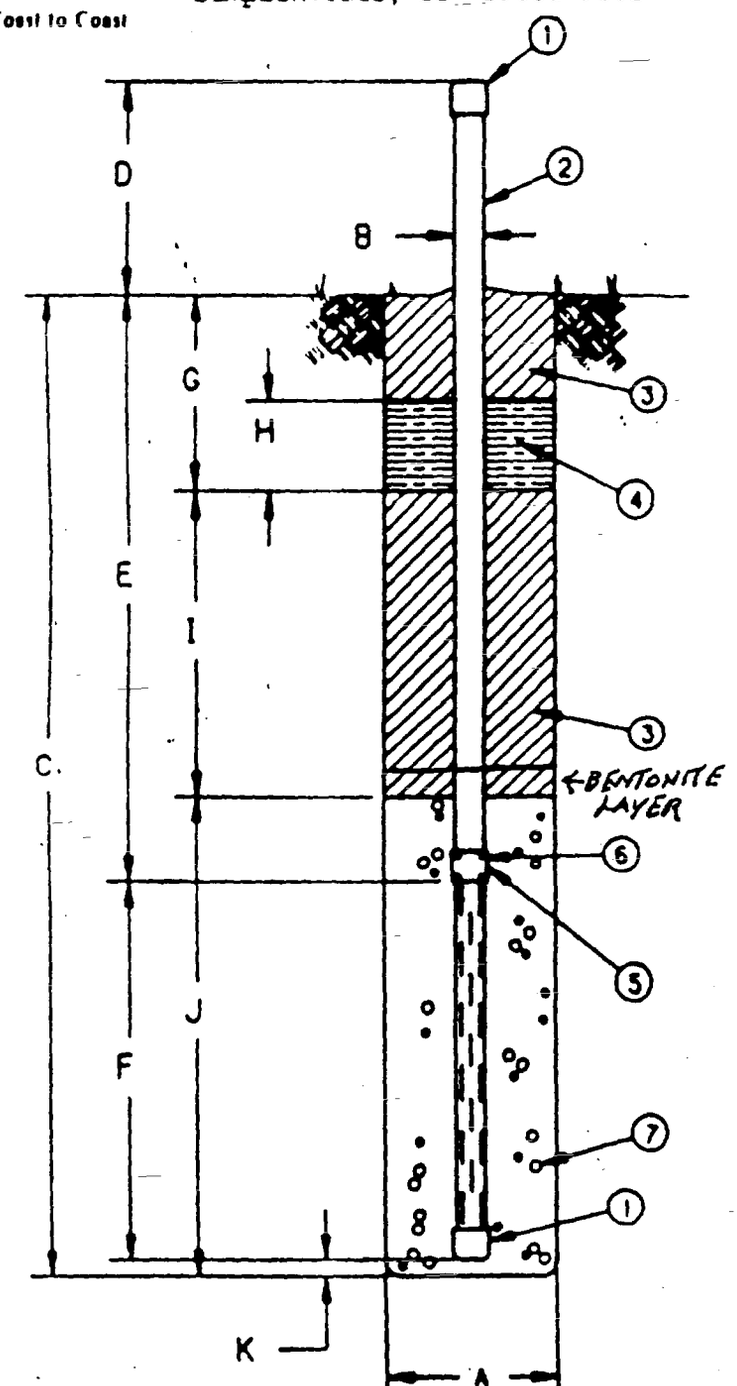
GWF	1	2 + 63 S	17 + 75 W	795.0 +2
GWF	2	2 + 28 S	14 + 86 W	796.2 ✓
GWF	3	2 + 32 S	11 + 49 W	797.2 ✓
GWF	4	2 + 27 S	8 + 55 W	795.0 ✓
GWF	5	2 + 11 S	5 + 37 W	789.2 +5
GWF	6	3 + 78 S	7 + 47 W	791.2 +6
GWF	7	3 + 90 S	10 + 70 W	795.9 +3
GWF	8	4 + 46 S	14 + 50 W	797.4 +4
GWF	9	4 + 94 S	16 + 72 W	797.0 +2
GWF	10	6 + 87 S	17 + 59 W	792.7 ✓
GWF	11	6 + 69 S	15 + 85 W	793.6 ✓
GWF	12	6 + 20 S	12 + 93 W	792.5 +1
GWF	13	5 + 36 S	8 + 50 W	794.7 ✓
GWF	14	5 + 43 S	5 + 75 W	792.2 +1

WELL DESIGN (As-Built)

SITE LOCATION Hod LANDFILL WELL LOCATION _____

DRILLING DATE 6-22-88 WELL No. 1

KELLETTS WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	36
B	PIPE SIZE	8
C	BORE DEPTH	42
D	SOLID PIPE ABOVE GROUND	3
E	SOLID PIPE BELOW GROUND	20
F	SLOTTED PIPE LENGTH	22
G	COVER DEPTH	2
H	BENTONITE LAYER	2
I	SOIL BACKFILL	12
J	GRAVEL PACK	23
K	GRAVEL BASE	0
	REFUSE DEPTH	37
	REFUSE TEMP RANGE	81-99

NOTES

HEAVY WATER IN BOTTOM

SITE LOCATION Hod LA FILL DRILL TIME
DATE 6-12-88
WELL NO. 1 42'

RECOVERY WELL BORING LOG

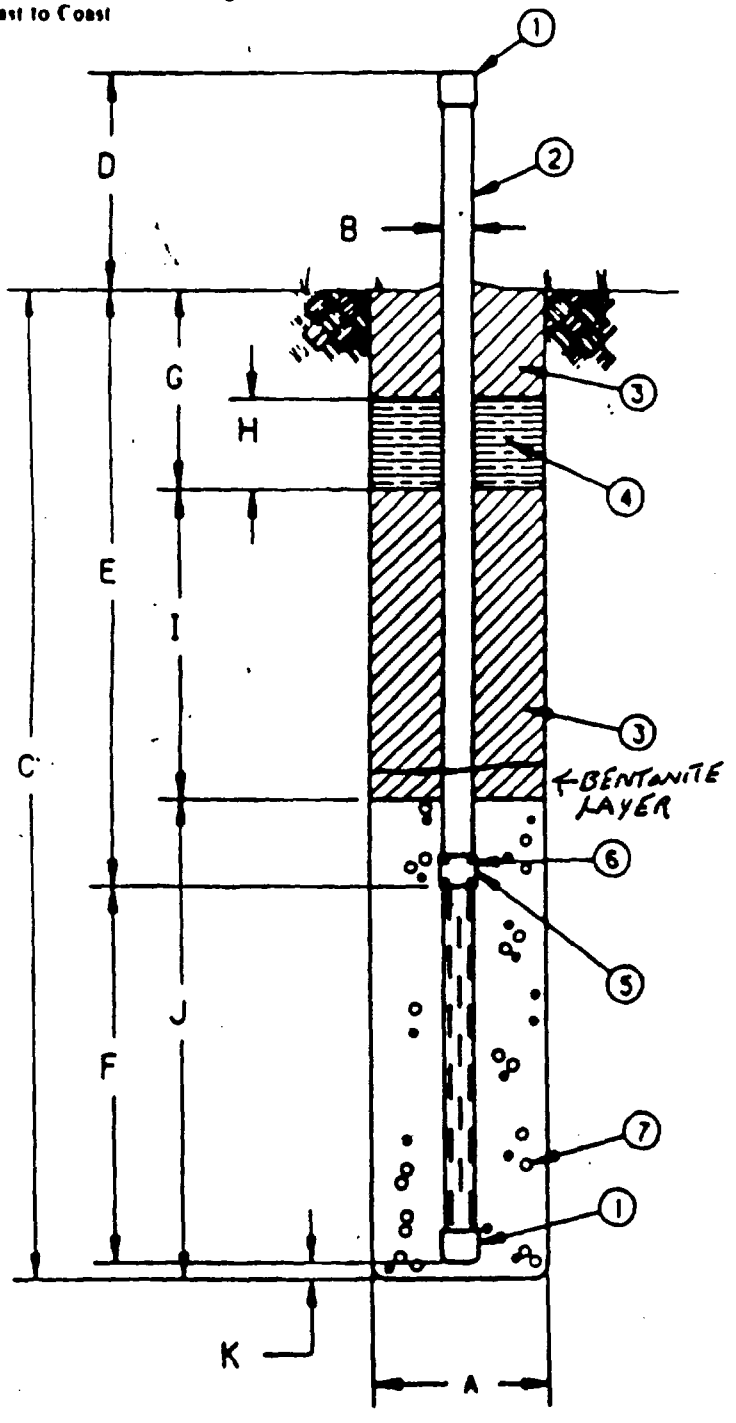
DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
0-5	CLAY COVER			
5-10	HOUSEHOLD REFUSE	SLIGHT	DRY	81° 1983
10-15	CLAY PAPER wood	"	"	
15-20	COMMERCIAL REFUSE	"	"	86° 1982
20-25	RESIDENTIAL REFUSE	SLIGHT	"	
25-30	wood CLAY PAPER	"	"	89° 1982
30-35	COMMERCIAL REFUSE	"	DAMP	
35-40	RESIDENTIAL REFUSE	"	SATURATED	99° 1982
40-42	CLAY wood	"	"	
				20' SOLID PIPE
				22' SLOTTED "
				WATER IN BOTTOM

WELL DESIGN (As-Built)

SITE LOCATION Hod Landfill WELL LOCATION _____

DRILLING DATE 6-22-88 WELL No. 2

KELLETT'S WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	36
B	PIPE SIZE	8
C	BORE DEPTH	47
D	SOLID PIPE ABOVE GROUND	3
E	SOLID PIPE BELOW GROUND	20
F	SLOTTED PIPE LENGTH	27
G	COVER DEPTH	5
H	BENTONITE LAYER	2
I	SOIL BACKFILL	12
J	GRAVEL PACK	28
K	GRAVEL BASE	0
	REFUSE DEPTH	42
	REFUSE TEMP RANGE	77-94

NOTES

WATER ON BOTTOM

SITE LOCATION Hod LA FILL DRILL TIME
DATE 6-22-88
WELL NO. 2 47'

RECOVERY WELL BORING LOG

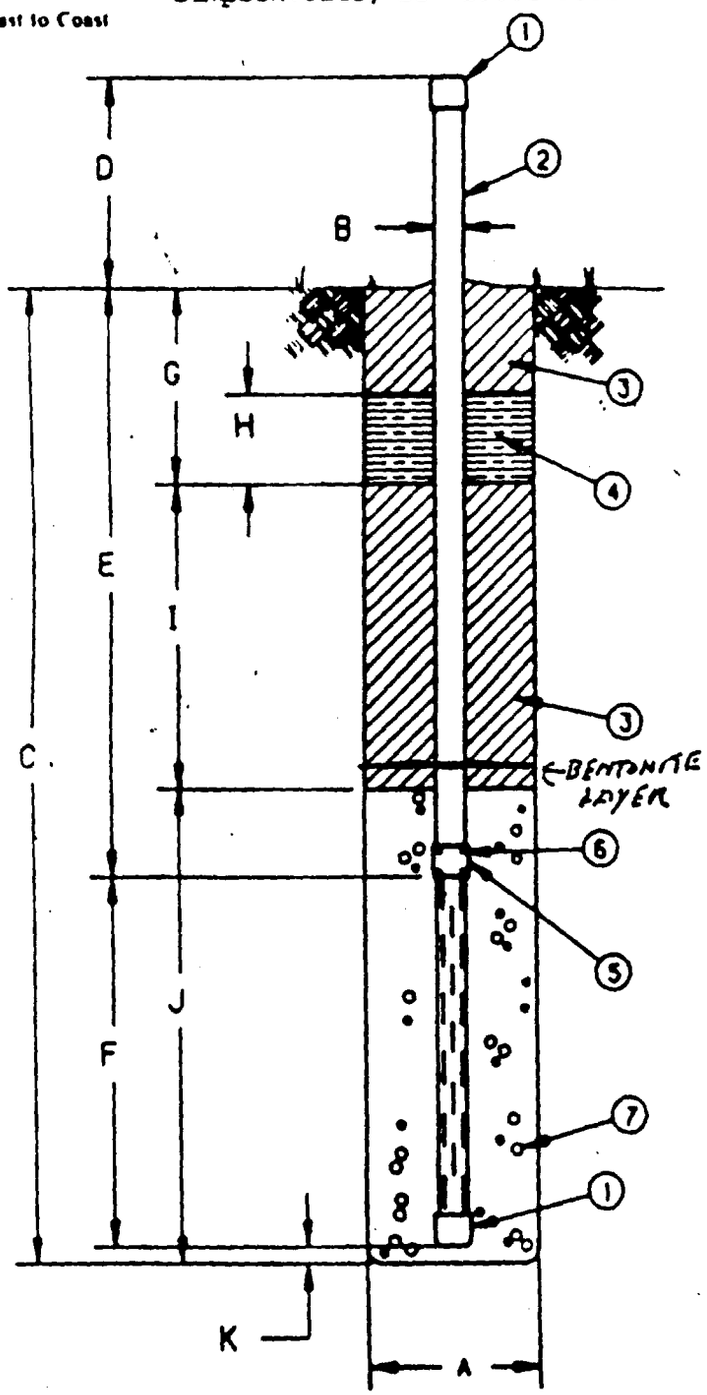
DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
0-5	CLAY COVER			
5-10	RESIDENTIAL REFUSE	SLIGHT	DRY	77° 1983
10-15	"	"	"	
15-20	Wood TIRES PLASTIC	"	"	80° 1983
20-25	COMMERCIAL REFUSE	"	"	
25-30	RESIDENTIAL REFUSE	"	MOIST	86° 1982
30-35	CLAY Wood TIRES	"	"	
35-40	RESIDENTIAL REFUSE	"	WET	91°
40-47	COMMERCIAL REFUSE	SLIGHT	SATURATED	94° 1977
				20' SOLID PIPE
				27' SLOTTED "
				WATER IN BOTTOM

WELL DESIGN (As-Built)

SITE LOCATION Hod LANDFILL WELL LOCATION _____

DRILLING DATE 6-22-88 WELL No. 3

KELLETT'S WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	36"
B	PIPE SIZE	"
C	BORE DEPTH	45'
D	SOLID PIPE ABOVE GROUND	3 "
E	SOLID PIPE BELOW GROUND	20 "
F	SLOTTED PIPE LENGTH	25' "
G	COVER DEPTH	5' "
H	BENTONITE LAYER	2 "
I	SOIL BACKFILL	12 "
J	GRAVEL PACK	26 "
K	GRAVEL BASE	0 "
	REFUSE DEPTH	40 "
	REFUSE TEMP RANGE	86-96 "

NOTES

WATER IN BOTTOM

SITE LOCATION Hodge Landfill

DATE 6-22-82

WELL NO. 3 45'

DRILL TIME

RECOVERY WELL BORING LOG

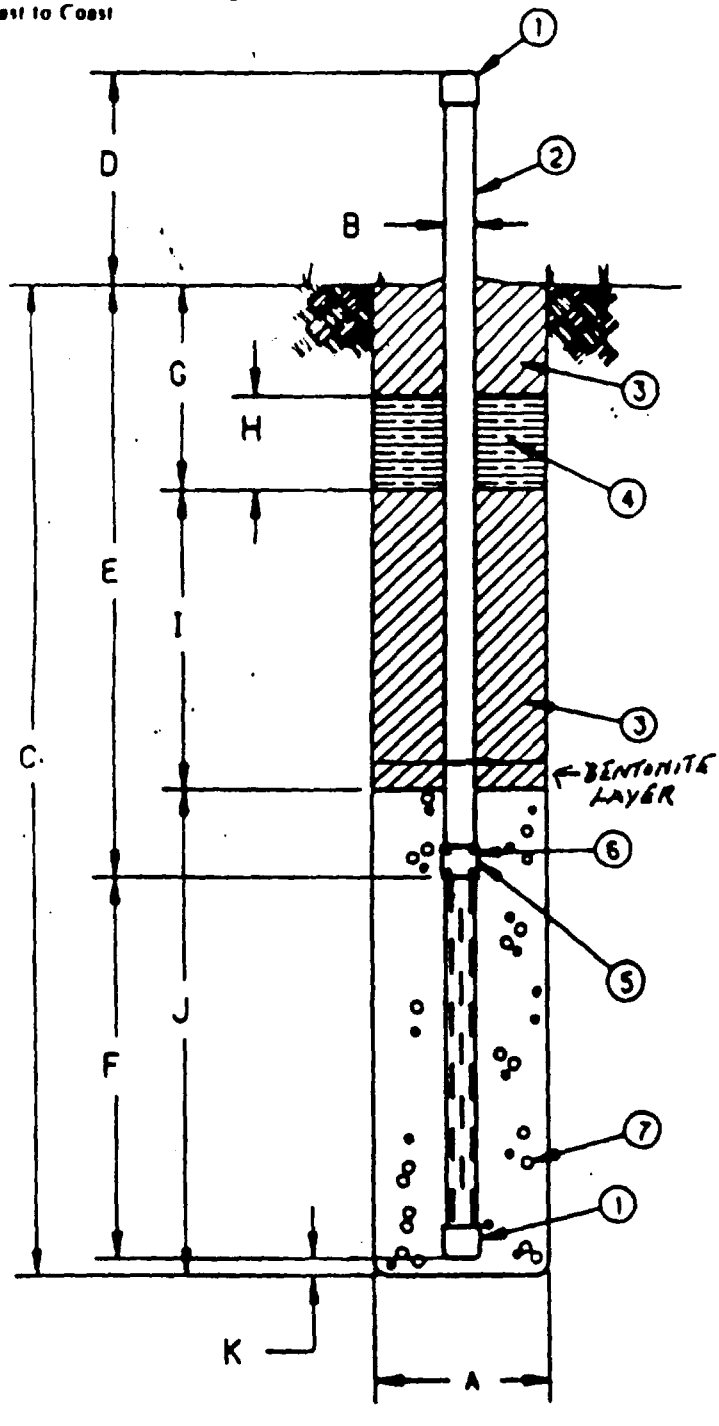
DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
0-5'	CLAY COVER			
5-10	RESIDENTIAL REFUSE	SLIGHT	DRY	86° 1983
10-15'	RESIDENTIAL REFUSE	"	"	
15-20	Wood CLAY TIRES	"	"	89° 1983
20-25'	COMMERCIAL REFUSE	"	damp	
25-30	RESIDENTIAL REFUSE	"	"	92° 1983
30-35'	RESIDENTIAL REFUSE	"	"	
35-40	Wood PLASTIC TIRES	"	WET	96° 1982
40-45'	CLAY Wood PAPER	"	SATURATED	
				20' SOLID PIPE
				25' SLOTTED "
				WATER IN BOTTOM

WELL DESIGN (As-Built)

SITE LOCATION Hod Landfill WELL LOCATION _____

DRILLING DATE 6-22-88 WELL No. 4

KELLETT'S WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	36
B	PIPE SIZE	8
C	BORE DEPTH	45'
D	SOLID PIPE ABOVE GROUND	3
E	SOLID PIPE BELOW GROUND	20
F	SLOTTED PIPE LENGTH	25'
G	COVER DEPTH	2'
H	BENTONITE LAYER	2
I	SOIL BACKFILL	12
J	GRAVEL PACK	26
K	GRAVEL BASE	0
	REFUSE DEPTH	40
	REFUSE TEMP RANGE	84-94

NOTES

WATER IN BOTTOM

SITE LOCATION Hod LA FILL — DRILL TIME _____

DATE 6-22-88

WELL NO. H 45'

RECOVERY WELL BORING LOG

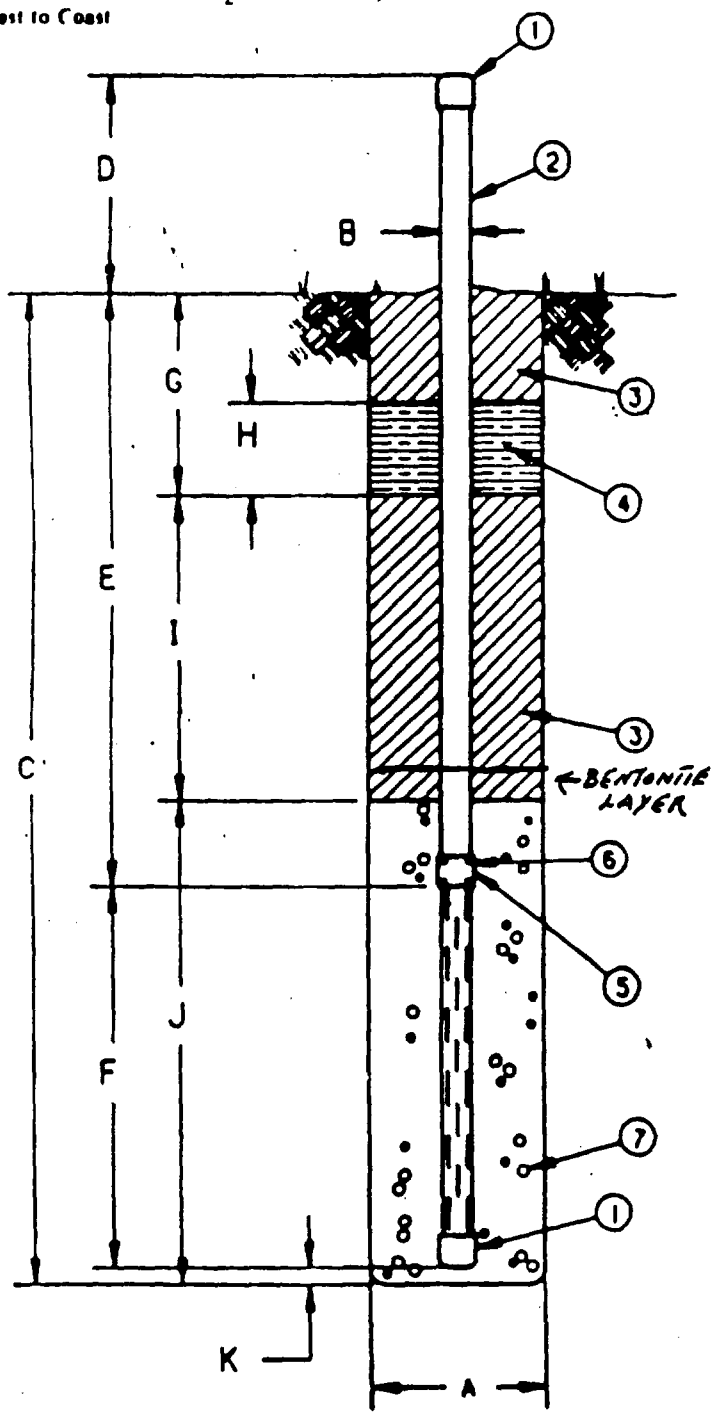
DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
0-5'	CLAY COVER			
5-10	RESIDENTIAL REFUSE	SLIGHT	dRY	86° 1983
10-15'	wood PLASTIC TIRES	"	"	
15-20	COMMERCIAL REFUSE	"	"	88° 1982
20-25'	RESIDENTIAL REFUSE	"	"	
25-30	wood CLAY TIRES	SLIGHT	MOIST	94° 1982
30-35'	RESIDENTIAL REFUSE	"	"	
35-40	COMMERCIAL REFUSE	"	WET	96° 1981
40-45'	wood CLAY PAPER	"	SATURATED	
				20' SOLID PIPE
				25' SLOTTED "
				WATER IN BOTTOM

WELL DESIGN (As-Built)

SITE LOCATION Hod LANDFILL WELL LOCATION _____

DRILLING DATE 4-22-88 WELL No. 5

KELLETT'S WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	36
B	PIPE SIZE	8
C	BORE DEPTH	32'
D	SOLID PIPE ABOVE GROUND	3
E	SOLID PIPE BELOW GROUND	20
F	SLOTTED PIPE LENGTH	32'
G	COVER DEPTH	3'
H	BENTONITE LAYER	2
I	SOIL BACKFILL	12
J	GRAVEL PACK	36
K	GRAVEL BASE	0
	REFUSE DEPTH	50
	REFUSE TEMP RANGE	84-99

NOTES

WATER IN BOTTOM

SITE LOCATION Hod LA 'FILL

DATE 6-22-88

WELL NO. 2

DRILL TIME

RECOVERY WELL BORING LOG

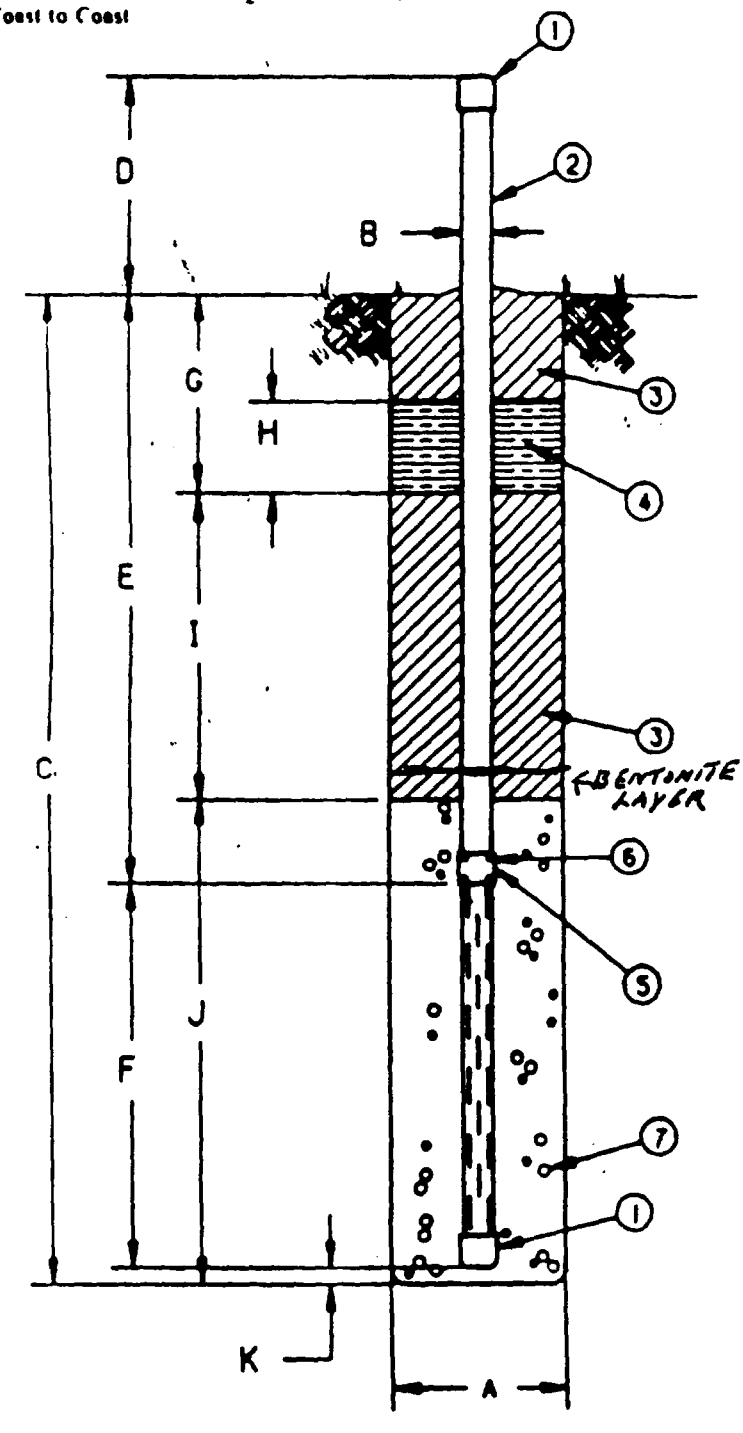
DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS	
0-5'	CLAY COVER				
5'-10	RESIDENTIAL REFUSE	SLIGHT	DRY	84°	1983
10-15	CLAY PLASTIC Wood	"	"		
15'-20	COMMERCIAL REFUSE	"	"	86°	1983
20-25'	RESIDENTIAL REFUSE	"	"		
25'-30	Wood PAPER TIRES	"	"	90°	1982
30-35'	COMMERCIAL REFUSE	"	"		
35'-40	RESIDENTIAL REFUSE	MODERATE	WET	96°	1982
40-45	Wood PLASTIC TIRES	"	"		
45'-50	RESIDENTIAL REFUSE	"	"	99°	1982
50-55'	Wood PAPER CLAY	"	SATURATED		
				20' SOLID PIPE	
				35' SLOTTED "	
				WATER IN BOTTOM	

WELL DESIGN (As-Built)

SITE LOCATION Hod LANDFILL WELL LOCATION _____

DRILLING DATE 6-23-88 WELL No. 6

KELLETT'S WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1	CAP
2	PIPE
3	SOIL BACKFILL
4	BENTONITE LAYER
5	COUPLING
6	LAG BOLTS
7	GRAVEL

SPECIFICATIONS

A	BORE SIZE	36
B	PIPE SIZE	8
C	BORE DEPTH	41
D	SOLID PIPE ABOVE GROUND	3
E	SOLID PIPE BELOW GROUND	20
F	SLOTTED PIPE LENGTH	21
G	COVER DEPTH	5
H	BENTONITE LAYER	2
I	SOIL BACKFILL	12
J	GRAVEL PACK	22
K	GRAVEL BASE	0
	REFUSE DEPTH	36
	REFUSE TEMP RANGE	84-94

NOTES

WATER IN BOTTOM

SITE LOCATION Hod LA FILL
DATE 6-23-82
WELL NO. 6- 41'

FILL TIME

RECOVERY WELL BORING LOG

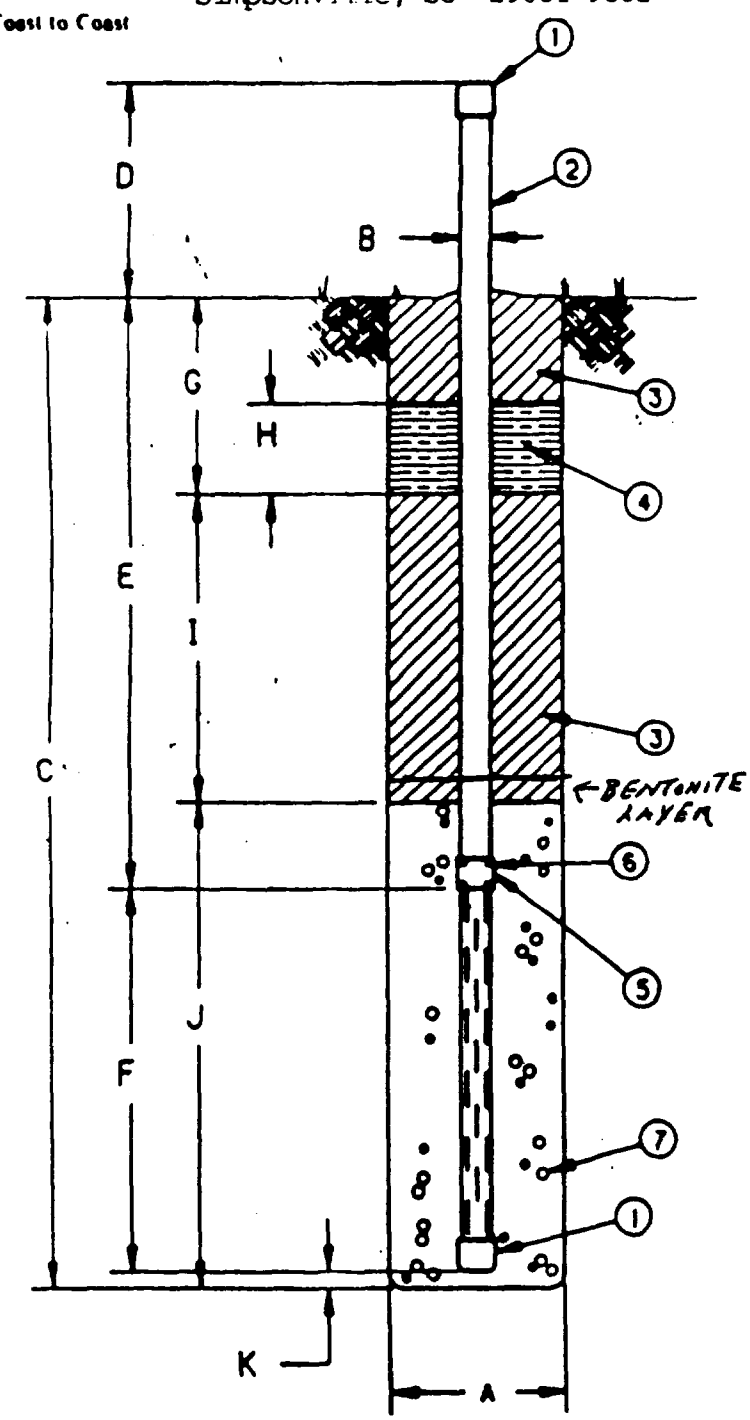
DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
0-5	CLAY COVER			
5-10	RESIDENTIAL REFUSE	SLIGHT	dRY	84° 1983
10-15	CLAY Wood PAPER	"	"	
15-20	COMMERCIAL REFUSE	"	"	86° 1983
20-25	TIRES Wood PLASTIC	"	"	
25-30	RESIDENTIAL REFUSE	"	"	91° 1982
30-35	COMMERCIAL REFUSE	SLIGHT	WET	
35-41	CLAY Wood PAPER	"	SATURATED	94° 1982
				20' SOLID PIPE
				21' SLOTTED "
				WATER IN BOTTOM

WELL DESIGN (As-Built)

SITE LOCATION Hod Landfill WELL LOCATION _____

DRILLING DATE 6-24-88 WELL No. 48 1

KELLETTS WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	36
B	PIPE SIZE	8
C	BORE DEPTH	48
D	SOLID PIPE ABOVE GROUND	3
E	SOLID PIPE BELOW GROUND	20
F	SLOTTED PIPE LENGTH	28
G	COVER DEPTH	3'
H	BENTONITE LAYER	2
I	SOIL BACKFILL	12
J	GRAVEL PACK	29
K	GRAVEL BASE	0
	REFUSE DEPTH	43
	REFUSE TEMP RANGE	84-97

NOTES

WATER IN BOTTOM

SITE LOCATION Hod L LdFill

DRILL TIME

DATE 6-24-85

WELL NO. #7 48'

RECOVERY WELL BORING LOG

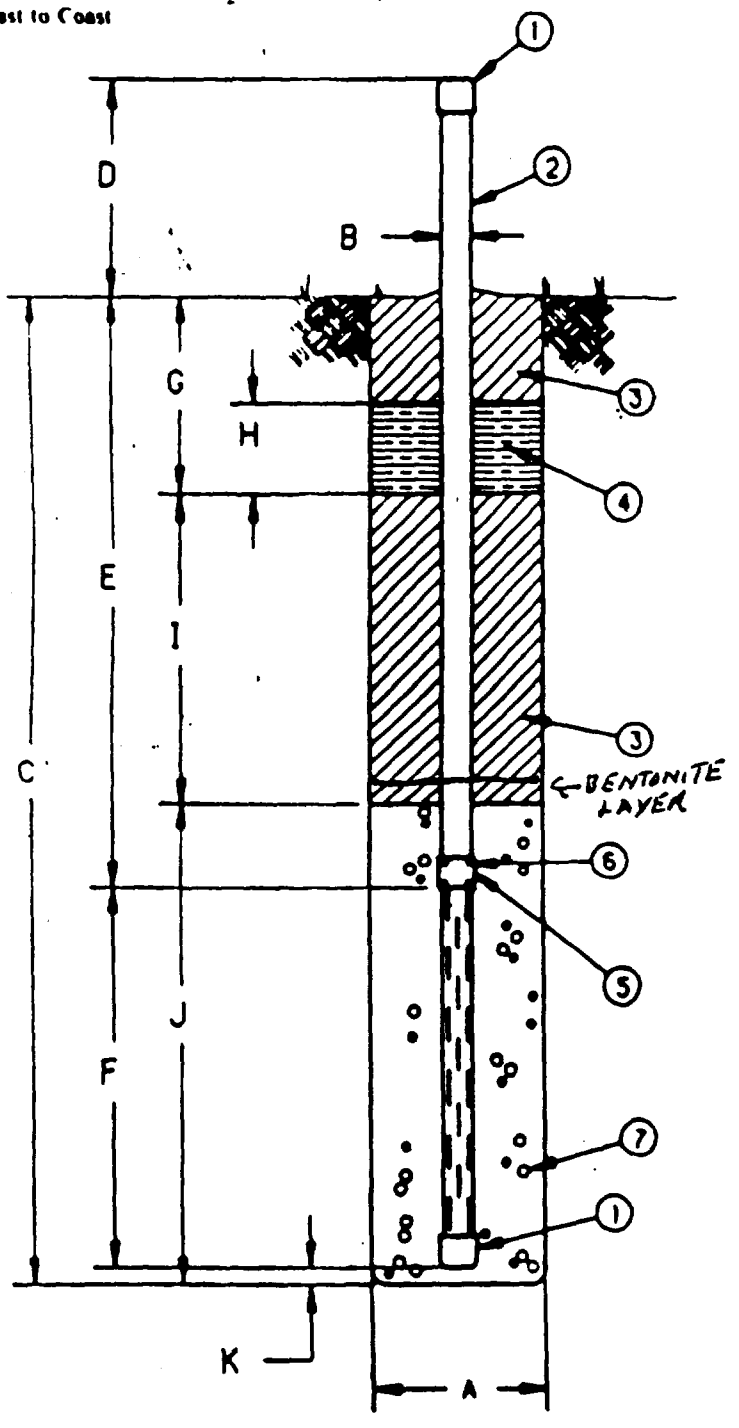
DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
0-5'	CLAY COVER			
5-10	CLAY TIRES WOOD	SLIGHT	DRY	84° 1983
10-15	RESIDENTIAL REFUSE	"	"	
15-20	COMMERCIAL REFUSE	"	"	88° 1983
20-25	WOOD METAL TIRES	"	"	
25-30	RESIDENTIAL REFUSE	MODERATE	MOIST	92° 1982
30-35	COMMERCIAL REFUSE	"	"	
35-40	RESIDENTIAL REFUSE	"	"	97° 1982
40-48	CLAY WOOD PAPER	HIGH	SATURATED	
				20' SOLID PIPE
				28' SLOTTED "
				WATER IN BOTTOM

WELL DESIGN (As-Built)

SITE LOCATION Hod LANDFILL WELL LOCATION _____

DRILLING DATE 6-24-88 WELL No. 8

KELLETT'S WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	36 "
B	PIPE SIZE	8 "
C	BORE DEPTH	48 "
D	SOLID PIPE ABOVE GROUND	3 "
E	SOLID PIPE BELOW GROUND	20 "
F	SLOTTED PIPE LENGTH	28 "
G	COVER DEPTH	5 "
H	BENTONITE LAYER	2 "
I	SOIL BACKFILL	12 "
J	GRAVEL PACK	29 "
K	GRAVEL BASE	0 "
	REFUSE DEPTH	43 "
	REFUSE TEMP RANGE	81-94 "

NOTES

WATER IN BOTTOM

SITE LOCATION Hod LA Fill DRILL TIME
DATE 6-24-88
WELL NO. 8 48'

RECOVERY WELL BORING LOG

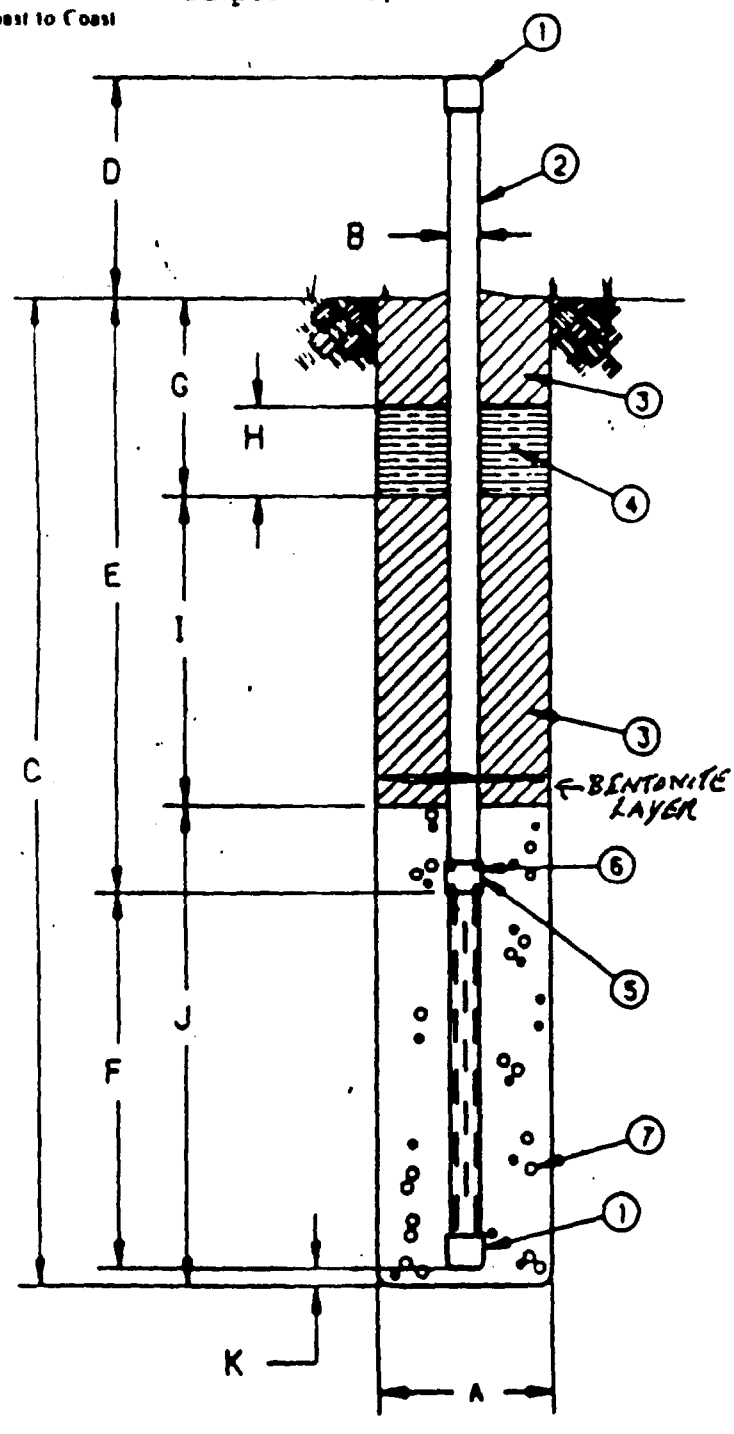
DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
0-5	CLAY COVER			
5-10	CLAY PLASTIC WOOD	SLIGHT	DRY	81' 1983
10-15	RESIDENTIAL REFUSE	"	"	
15-20	"	"	"	84 1982
20-25	COMMERCIAL REFUSE	"	"	
25-30	RESIDENTIAL REFUSE	MEDIUM	MOIST	91' 1981
30-35	WOOD PLASTIC PAPER	"	"	
35-40	RESIDENTIAL REFUSE	"	"	94' 1981
40-48	CLAY PAPER WOOD	HIGH	SATURATED	
				20' SOLID PIPE
				28' SLOTTED "
				WATER IN BOTTOM

WELL DESIGN (As-Built)

SITE LOCATION Hod LANDFILL WELL LOCATION _____

DRILLING DATE 6-26-88 WELL No. 9

KELLETT'S WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	36
B	PIPE SIZE	8
C	BORE DEPTH	47
D	SOLID PIPE ABOVE GROUND	3
E	SOLID PIPE BELOW GROUND	20
F	SLOTTED PIPE LENGTH	27
G	COVER DEPTH	5
H	BENTONITE LAYER	2
I	SOIL BACKFILL	12
J	GRAVEL PACK	28
K	GRAVEL BASE	0
	REFUSE DEPTH	42
	REFUSE TEMP RANGE	81-94

NOTES

WATER IN BOTTOM

SITE LOCATION Hodl idFill
DATE 6-25-82
WELL NO. #9 47'

DRILL TIME

RECOVERY WELL BORING LOG

DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
0-5	CLAY COVER			
5-10	CLAY WOOD PAPER	SLIGHT	DRY	81° 1983
10-15	RESIDENTIAL REFUSE	"	"	
15-20	COMMERCIAL REFUSE	"	"	84° 1982
20-25	DEMOLITION DEBRIS	"	"	
25-30	COMMERCIAL REFUSE	MEDIUM	MOIST	89° 1981
30-35	RESIDENTIAL REFUSE	"	"	
35-40	RESIDENTIAL REFUSE	"	"	94° 1981
40-48	CLAY WOOD PAPER	HIGH	SATURATED	
				20' SOLID PIPE
				28' SLOTTED "
				WATER IN BOTTOM

WELL DESIGN (As-Built)

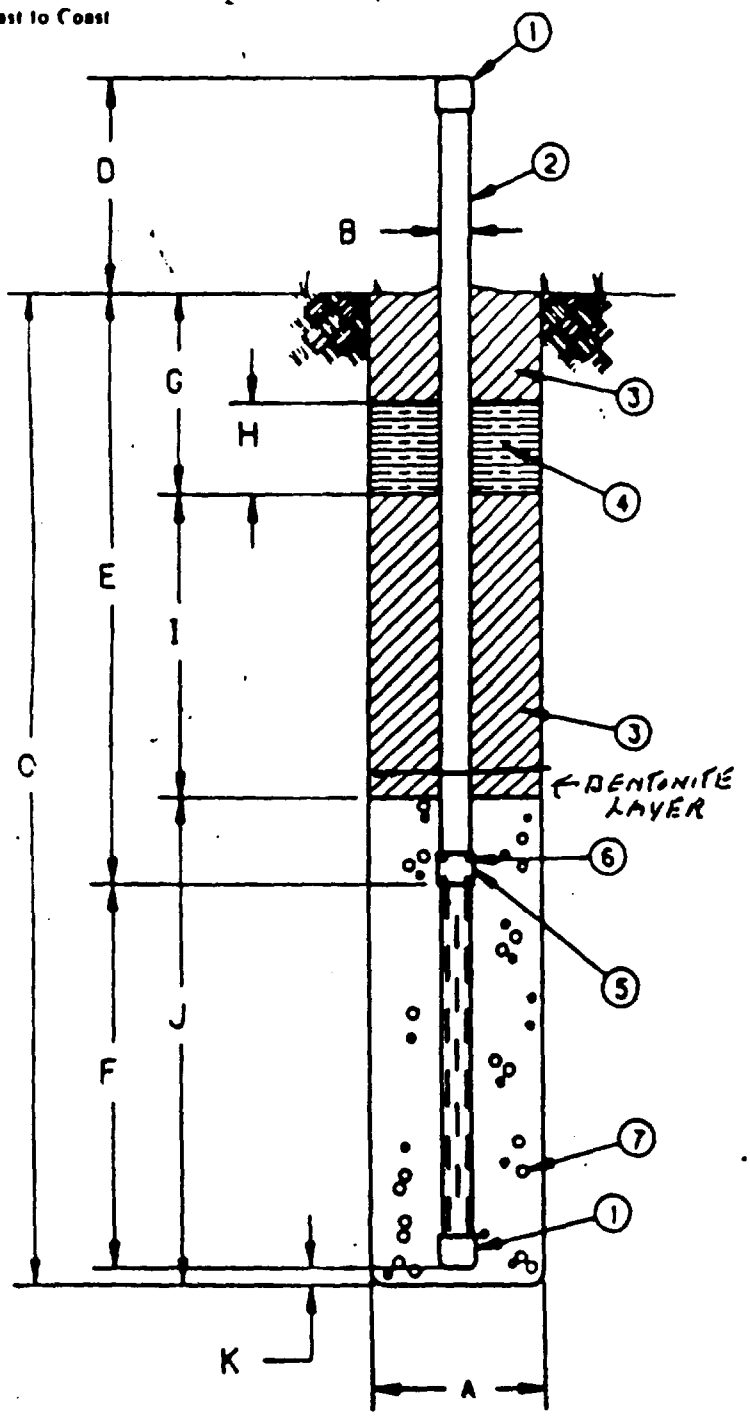
SITE LOCATION Hod Landfill

WELL LOCATION

DRILLING DATE 6-25-88

WELL No. 10

KELLETT'S WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	36
B	PIPE SIZE	8
C	BORE DEPTH	38
D	SOLID PIPE ABOVE GROUND	3
E	SOLID PIPE BELOW GROUND	20
F	SLOTTED PIPE LENGTH	18
G	COVER DEPTH	2
H	BENTONITE LAYER	1
I	SOIL BACKFILL	12
J	GRAVEL PACK	19
K	GRAVEL BASE	0
	REFUSE DEPTH	33
	REFUSE TEMP RANGE	81-91

NOTES

WATER IN BOTTOM

SITE LOCATION Hod 'ANdFILL DRILL TIME
DATE 6-25-8
WELL NO. #10 38'

RECOVERY WELL BORING LOG

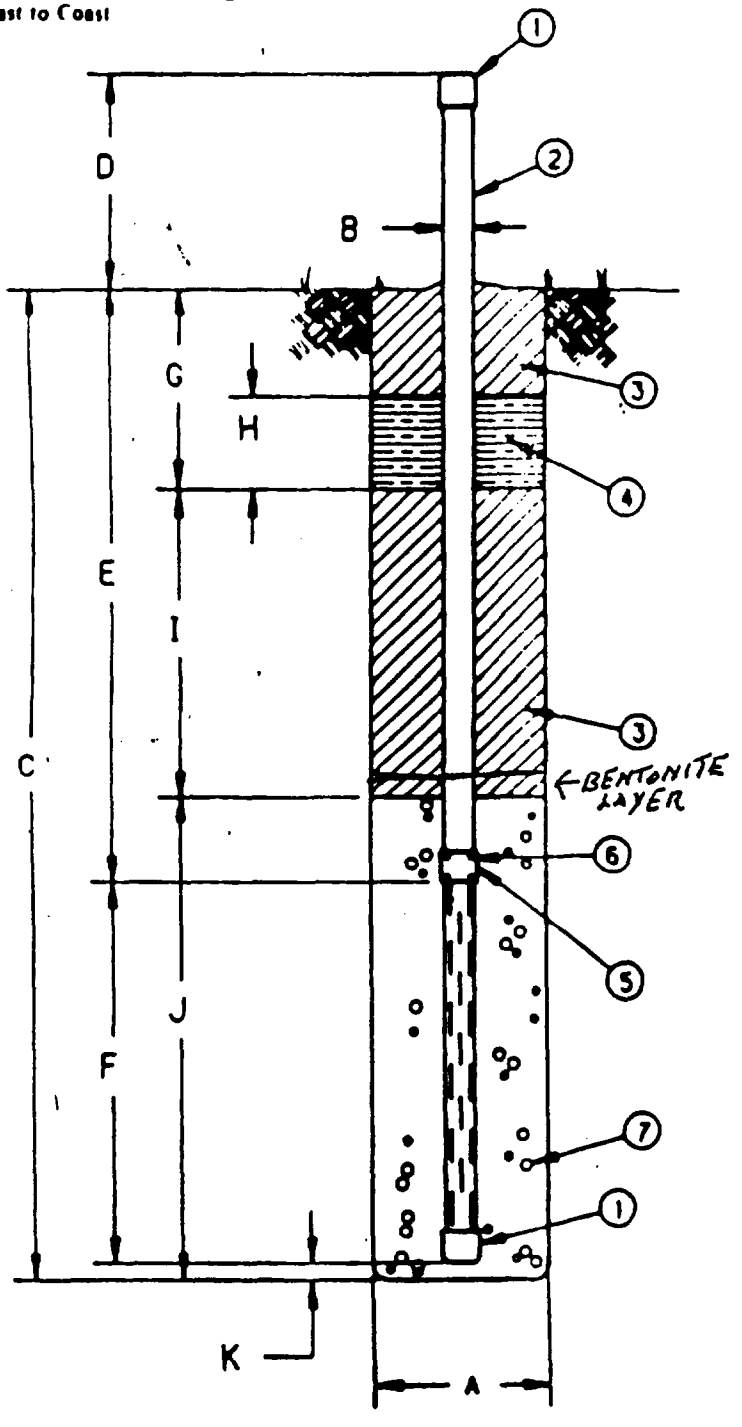
DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
0-5	CLAY COVER			
5-10	WOOD CLAY PAPER	SLIGHT	dRY	81° 1982
10-15	RESIDENTIAL REFUSE	"	"	
15-20	COMMERCIAL REFUSE	HIGH	MOIST	88° 1981
20-25	WOOD CLAY TIRES	"	"	
25-30	RESIDENTIAL REFUSE	"	"	91° 1979
30-38	CLAY WOOD PAPER	"	SATURATED	
				20' SOLID PIPE
				18' SLOTTED "
				WATER IN BOTTOM

WELL DESIGN (As-Built)

SITE LOCATION Hod Landfill WELL LOCATION _____

DRILLING DATE 6-24-88 WELL No. 21

KELLETT'S WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	36
B	PIPE SIZE	8
C	BORE DEPTH	40
D	SOLID PIPE ABOVE GROUND	3
E	SOLID PIPE BELOW GROUND	20
F	SLOTTED PIPE LENGTH	20
G	COVER DEPTH	5
H	BENTONITE LAYER	2
I	SOIL BACKFILL	12
J	GRAVEL PACK	21
K	GRAVEL BASE	6
	REFUSE DEPTH	32
	REFUSE TEMP RANGE	79-89

NOTES

WATER IN BOTTOM

SITE LOCATION Hod L dFILL
DATE 6-24-88
WELL NO. # 11 40'

DRILL TIME

RECOVERY WELL BORING LOG

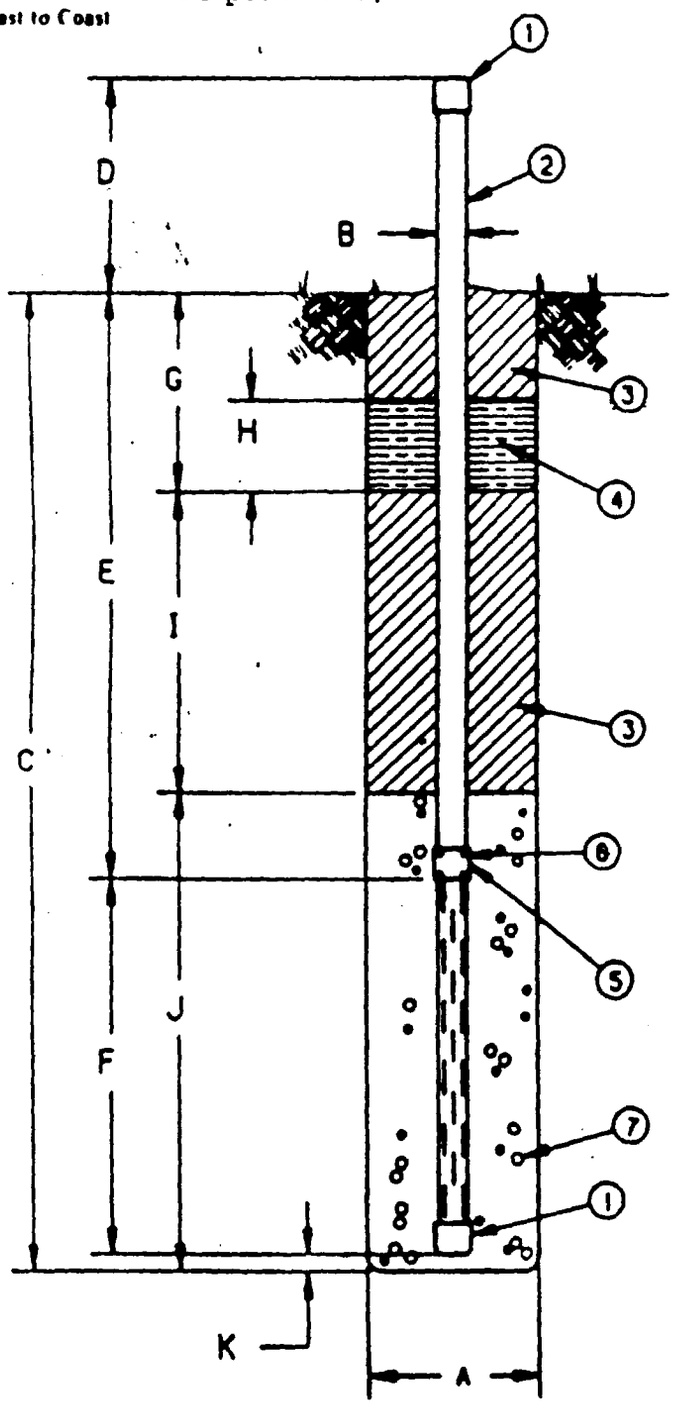
DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
0-5	CLAY COVER			
5-10	CLAY WOOD TIRES	SLIGHT	dRY	79° 1983
10-15	RESIDENTIAL REFUSE	"	"	
15-20	COMMERCIAL REFUSE	"	"	82° 1982
20-25	WOOD TIRES PAPER	MEDIUM	WET	
25-30	COMMERCIAL REFUSE	"	"	86° 1982
30-35	WOOD TIRES PLASTIC	"	"	
35-40	CLAY WOOD PAPER	HIGH	SATURATED	89° 1982
				20' SOLID PIPE
				20' SLOTTED "
				WATER IN BOTTOM

WELL DESIGN (As-Built)

SITE LOCATION Hod Landfill WELL LOCATION _____

DRILLING DATE 6-24-88 WELL No. 12

KELLETTS WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	34 "
B	PIPE SIZE	8 "
C	BORE DEPTH	22 "
D	SOLID PIPE ABOVE GROUND	3 "
E	SOLID PIPE BELOW GROUND	12 "
F	SLOTTED PIPE LENGTH	10 "
G	COVER DEPTH	3 "
H	BENTONITE LAYER	1 "
I	SOIL BACKFILL	5 "
J	GRAVEL PACK	11 "
K	GRAVEL BASE	0 "
	REFUSE DEPTH	22 "
	REFUSE TEMP RANGE	77-79 "

NOTES

HEAVY WATER IN WELL

SITE LOCATION Hod Landfill DRILL TIME
DATE 6-24-80
WELL NO. 12 22'

RECOVERY WELL BORING LOG

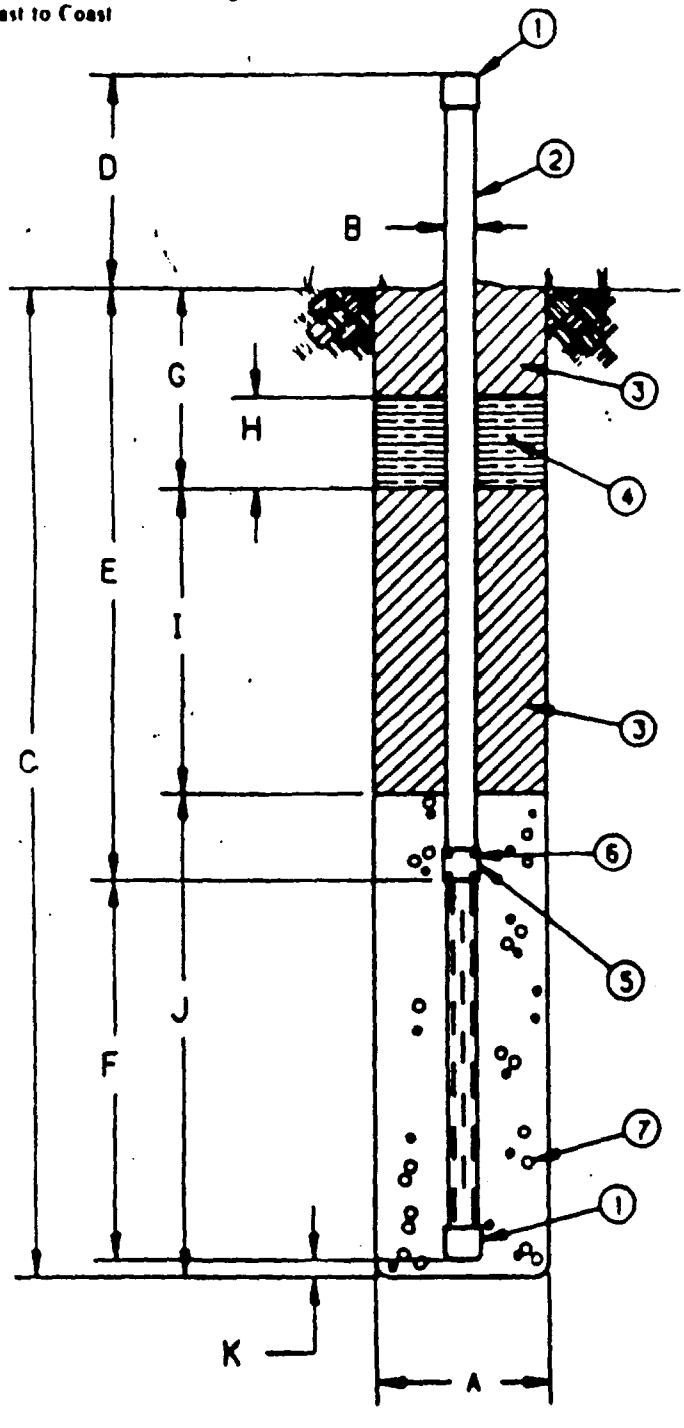
DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
0-5	CLAY COVER			
5-10	RESIDENTIAL REFUSE	SLIGHT	dRY	77'
10-15	CLAY Wood TIRES	HIGH	MOIST	1982
15-20	COMMERCIAL REFUSE	"	SATURATED	79'
20-22	Wood TIRES PAPER	"	"	
				12' SOLID PIPE
				10' SLOTTED "
				HEAVY WATER IN WELL
				Could NOT dig ANY
				deeper

WELL DESIGN (As-Built)

SITE LOCATION Hod Landfill WELL LOCATION _____

DRILLING DATE 6-23-88 WELL No. 13

KELLETT'S WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	36
B	PIPE SIZE	8
C	BORE DEPTH	45'
D	SOLID PIPE ABOVE GROUND	3
E	SOLID PIPE BELOW GROUND	20
F	SLOTTED PIPE LENGTH	25'
G	COVER DEPTH	5'
H	BENTONITE LAYER	2
I	SOIL BACKFILL	12
J	GRAVEL PACK	26
K	GRAVEL BASE	0
	REFUSE DEPTH	40
	REFUSE TEMP RANGE	86-94

NOTES

WATER IN BOTTOM

'FILL 45'

DRILL TIME

RECOVERY WELL BORING LOG

ION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
ER			
ERCIAL FUSE	SLIGHT	DRY	86' 1983
ME AL FUSE	"	"	88 1983
Y PAPER WOOD	"	"	91 1982
ESIDENTIAL REFUSE	"	"	94 1982
TIRES PAPER WOOD	"	WET	
RESIDENTIAL REFUSE	SLIGHT	"	
COMMERCIAL REFUSE	"	SATURATED	
CLAY PAPER WOOD	"		
45'			

20' SOLID PIPE
25' SLOTTED "

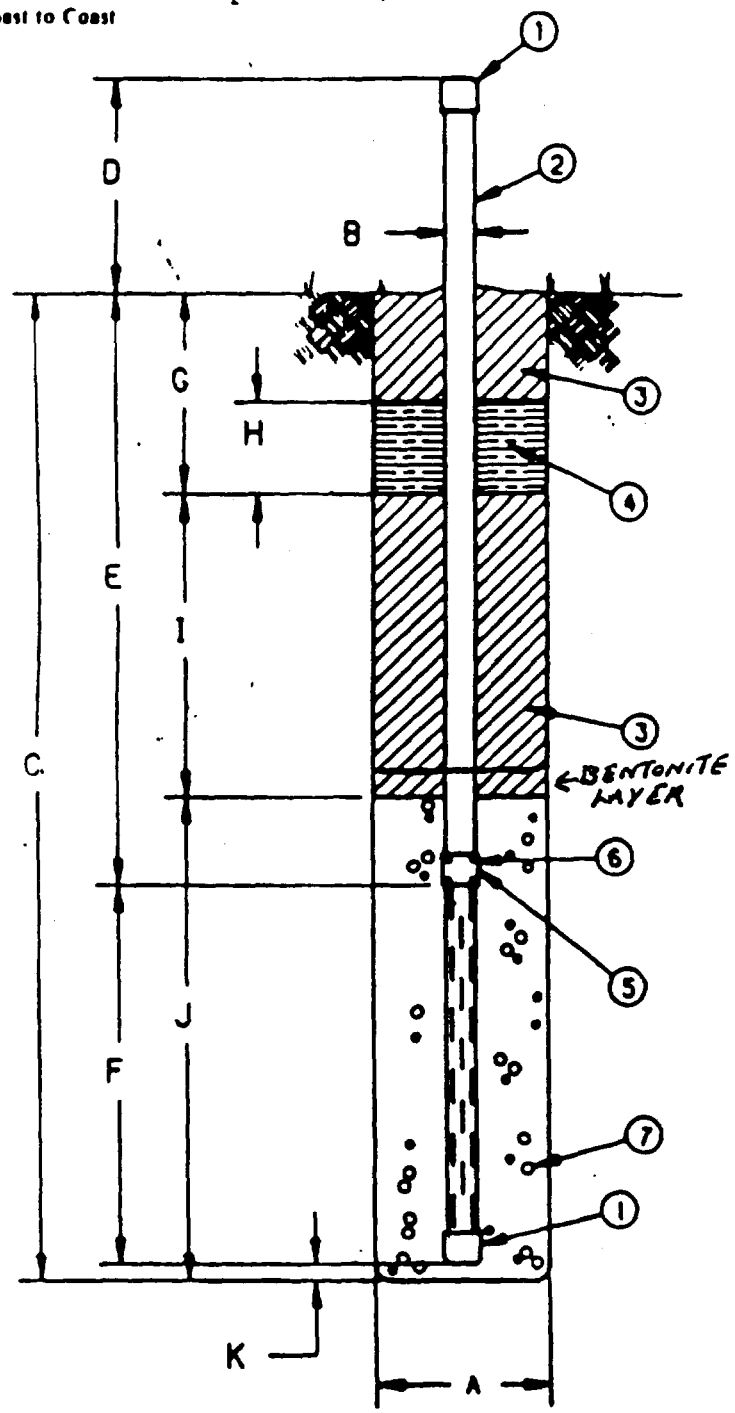
WATER IN BOTTOM

WELL DESIGN (As-Built)

SITE LOCATION Hod LANDFILL WELL LOCATION _____

DRILLING DATE 6-23-88 WELL No. ~~13~~ 14

KELLETT'S WELL BORING, INC.
3447 Fork Shoals Rd.
Simpsonville, SC 29681-9802
Coast to Coast



MATERIAL LIST

1 CAP
2 PIPE
3 SOIL BACKFILL
4 BENTONITE LAYER
5 COUPLING
6 LAG BOLTS
7 GRAVEL

SPECIFICATIONS

A	BORE SIZE	36
B	PIPE SIZE	8
C	BORE DEPTH	43
D	SOLID PIPE ABOVE GROUND	3
E	SOLID PIPE BELOW GROUND	20
F	SLOTTED PIPE LENGTH	23
G	COVER DEPTH	5'
H	BENTONITE LAYER	2
I	SOIL BACKFILL	1'
J	GRAVEL PACK	24
K	GRAVEL BASE	0
	REFUSE DEPTH	38
	REFUSE TEMP RANGE	86-96

NOTES

WATER IN BOTTOM

DATE 6-23-8 DRILL TIME

WELL NO. 14 43'

RECOVERY WELL BORING LOG

DEPTH	COMPOSITION	DEGREE OF DECOMPOSITION	MOISTURE	COMMENTS
0-5'	CLAY COVER			
5'-10	COMMERCIAL REFUSE	SLIGHT	DRY	86° 1983
10-15'	WOOD CLAY PAPER	"	"	
15'-20	TIRES PLASTIC WOOD	"	"	88° 1982
20-25'	RESIDENTIAL REFUSE	"	"	
25'-30	COMMERCIAL REFUSE	SLIGHT	MOIST	91° 1982
30-35'	TIRES PLASTIC METAL	"	"	
35'-40	RESIDENTIAL REFUSE	"	SATURATED	96° 1982
40-43	CLAY WOOD	"	"	
				20' SOLID PIPE
				23' SLOTTED "
				WATER IN BOTTOM

C9

U.S. EPA, 1987
(SB1, SB1A, USID-US7S)

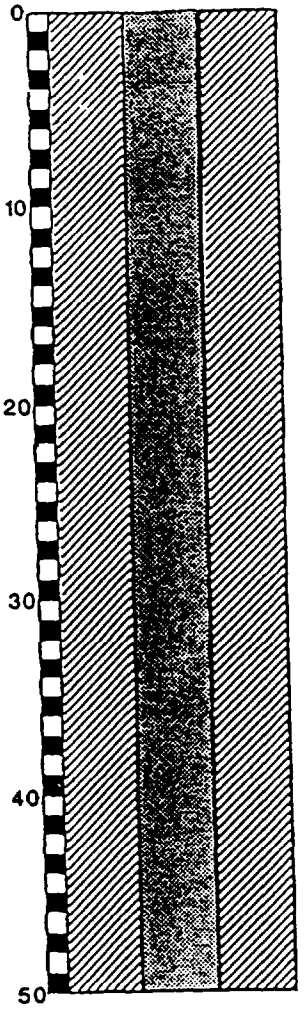
Project Name H.O.D. Landfill
Project No. F05-8702-124/FIL0141
ILD980605836

Date Prepared 1-12-88; rev. 5-3-89
Prepared by D. Lombardi, T. Pachowicz

Boring/Well No. SB1
Location See Figure 3-2
Owner N.A.
Ground Elevation 794.68
Top of Inner Casing Elev. N.A.
Drilling Firm Fox Drilling Inc.
Geologist Lombardi, Pachowicz,
Start & Completion Dates 4-28-87, 4-29-87
Type of Rig CME 750

Method of Drilling Rotary Wash

Depth (ft) Description



Silty CLAY, trace sand and gravel

WELL DATA

Boring Diam. 4 in.
Boring Depth 50 ft.
Casing Diam. N.A.
Screen Diam. N.A.
Screen Interval N.A.
Screen Type N.A.
Well Type N.A.
Well Construction:
Filter Pack N.A.
Seal Volclay Grout
Grout Volclay Grout
Lock No. N.A.

TEST DATA

Static Water Elev. _____ Date _____
Static Water Elev. _____ Date _____
Hydraulic
Conductivity Test Yes _____ No X
Test Date _____
Results _____
Comments _____

SAMPLES FOR CHEMICAL ANALYSIS

Soils None
No. of Samples _____
Date _____
Parameters _____

Sample Depths _____

Groundwater None
No. of Samples _____
Date _____
Parameters _____

Split Samples Yes _____ No X
Recipient _____

Comments _____

REMARKS

Project Name H.O.D LANDFILL Boring Well No. SB1

Sample Depth (ft.)	Blow Count	Description
1 - 2.5	8-9-11	Clayey SILT, weak red (2.5YR 4/2), trace fine pebbles, moist.
5 - 6.5	9-18-27	Silty CLAY, yellowish brown (10YR 5/4), mottled, rootlets, heavy, oxidation, fine grained sand seam 0.5 in.
8.5 - 10	9-27-35	Silty CLAY, yellowish brown (10YR 5/4), mottled, trace rootlets, oxidation.
13.5 - 15	12-15-23	12 in. CLAY, yellowish brown (10YR 5/4), mottled, oxidation, moist. 6 in. CLAY, yellowish brown (10YR 5/4), 1/8 in. thick silt seams, moist.
18.5 - 20	8-9-12	Interbedded CLAY and SILT, gray (10YR 5/1), sand seams, yellowish brown (10YR 5/6), medium to coarse grained, moderately sorted, subangular to subrounded, moist.
23.5 - 25	15-28-30	silty CLAY, gray (10YR 5/1), trace fine to medium pebbles, subrounded to rounded, trace silt seams, moist.
28.5 - 30	11-22-29	silty CLAY, gray (10YR 5/1), trace fine pebbles. silt and sand seams.
33.5 - 35	10-15-22	No Recovery.
38.5 - 40	15-20-20	silty CLAY, gray (10YR 5/1), trace fine to medium pebbles, silt content decreases downward.
43.5 - 45	14-14-19	silty CLAY, as above.
50		END OF BORING

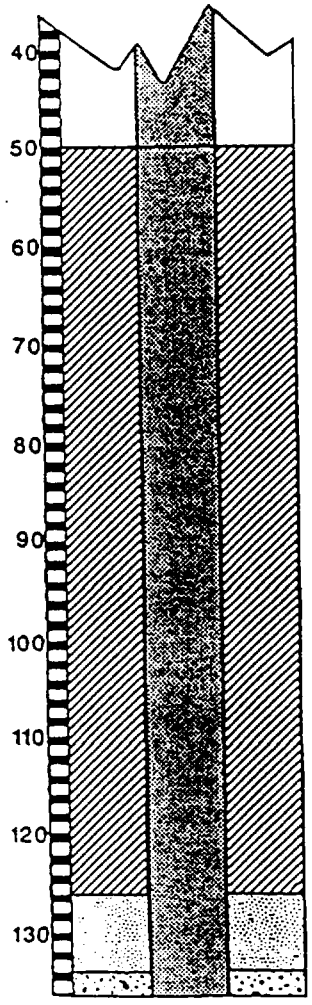
Project Name H.O.D. Landfill
Project No. F05-8702-124/FIL0141
ILD980605836

Date Prepared 1-12-88; rev. 5-3-89
Prepared by D. Lombardi, T. Pachowicz

Boring/Well No. SB1a
Location See Figure 3-2
Owner N.A.
Ground Elevation 794.68
Top of Inner Casing Elev. N.A.
Drilling Firm Fox Drilling Inc.
Geologist Lombardi, Pachowicz, Smith
Start & Completion Dates 5-19-87,5-20-87
Type of Rig Mobile B-61

Method of Drilling Rotary Wash

Depth (ft) Description



See log for SB1

Silty CLAY, trace sand and gravel,occasional silt seams

Fine to medium SAND, some silt, trace gravel

SAND and GRAVEL

WELL DATA

Boring Diam. 3 in.
Boring Depth 136.5 ft.
Casing Diam. N.A.
Screen Diam. N.A.
Screen Interval N.A.
Screen Type N.A.
Well Type N.A.
Well Construction:
Filter Pack N.A.
Seal Volclay Grout
Grout Volclay Grout
Lock No. N.A.

TEST DATA

Static Water Elev. _____ Date _____
Static Water Elev. _____ Date _____
Hydraulic
Conductivity Test Yes _____ No X
Test Date _____
Results _____
Comments _____

SAMPLES FOR CHEMICAL ANALYSIS

Soils None
No. of Samples _____
Date _____
Parameters _____

Sample Depths _____

Groundwater None
No. of Samples _____
Date _____
Parameters _____

Split Samples Yes _____ No _____
Recipient _____

Comments _____

REMARKS

Project Name H.O.D. Landfill Boring Well No. SB1a

Sample Depth (ft.)	Blow Count	Description
0 - 50		See Log for SB1.
50 - 51.5	12-14-21	CLAY, gray (5Y 5/1), trace pebbles, trace coarse sand, moist.
55 - 56.5	8-13-18	12 in. gravelly CLAY, gray (5Y 5/1). 6 in. sandy CLAY, gray (5Y 5/1), fine to coarse sand, moist.
60 - 61.5	8-13-23	Silty CLAY, gray (5Y 5/1), trace gravel, trace sand.
65 - 66.5	10-18-23	No Recovery.
70 - 71.5	13-20-27	Silty CLAY, gray (5Y 5/1), trace pebbles, silt content decreases downward,
75 - 76.5	12-20-38	Silty CLAY, as above.
80 - 81.5	9-18-27	CLAY to silty clay, gray (5Y 5/1).
85 - 86.5	10-16-31	CLAY, as above.
90 - 91.5	12-26-34	Silty CLAY, gray (5Y 5/1), trace pebbles.
95 - 96.5	14-27-37	No Recovery.
100 - 101.5	20-24-58	Silty CLAY, gray (5Y 5/1), fine sand seams, moist.
105 - 106.5	30-42-46	Silty CLAY, dark gray (5Y 4/1), moist.
110 - 111.5	21-25-35	CLAY, dark gray (5Y 4/1), trace fine sand seams 1/8 in. thick, moist.
115 - 116.5	18-23-35	Silty CLAY, dark gray (5Y 4/1), trace fine sand seams, moist.
120 - 121.5	14-17-25	Gravelly CLAY, dark gray (5Y 4/1), some fine sand seams, moist.
125 - 126.5	38-70-66	8 in. CLAY, dark gray (5Y 4/1). 2 in. GRAVEL, dark gray (5Y 4/1), fine to coarse. 6 in. silty SAND, dark gray, fine to medium grained, moderately sorted, scattered coarse grains, subangular to rounded, quartzose with some feldspar and lithic fragments.
135 - 136.5	34-38-33	SAND, gray (5Y 5/1), medium to coarse grained, well sorted, subrounded to rounded, saturated. And GRAVEL, gray (5Y 5/1), fine to medium pebbles, subrounded to rounded, varied lithology, saturated.
136.5		END OF BORING