HILL-BETTY (ENGINEERS) LTD.

CIVIL ENGINEERS AND CONTRACTORS

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March 14 , 2007

REPORT ON

SOILS INVESTIGATION

AT

ROYAL REST, BURNT GROUND

HANOVER

1.0 INTRODUCTION

This report presents the findings of a soils investigation carried out on a site at Royal Rest, Burnt Ground, Hanover. As we understand it, the location investigated is to be used as a cemetery. Authority to proceed with the site investigation was received from Dr. Ravidya Burrowes of Environmental Management Consultants (Caribbean) Limited and was based on the acceptance of our financial quotation.

The objectives of the investigation were to evaluate the subsurface conditions on the site and to assess the percolation capabilities of the soils.

2.0 FIELD WORK

The subsurface conditions on the site were evaluated February 2007 by the drilling of three boreholes. The drilling crew consisted of Mr. E. Anderson, (supervisor and main logger), Mr. M. Sinclair, Mr. M. Jackson and Mr. R. Parnell. The borehole locations were advised by Dr. Burrowes.

Borehole No. 1 was taken to depth of 9.1m (30-feet) below existing ground elevations; borehole No. 2 was taken to depth of 12.2 m (40-feet) and borehole No. 3 was taken to depth of 13.7m (45-feet).

The boreholes were advanced by using a truck-mounted drill rig with hollow stem auger attachments. Representative samples of the soils penetrated were recovered from the boreholes by using a split spoon sampler and standard penetration test procedures.

Borehole logs showing the types of soils encountered on the site are contained in appendix 1.

3.0 FIELD TEST

Standard penetration tests were carried out in the boreholes at the depths as shown on the office borehole logs. The results of these tests are called N-values, and where soils are encountered, they are indices of the relative densities (and hence, their bearing capacities), when the overburden, groundwater conditions and grain size distribution of the soils are taken into account.

The N-values are the number of blows required to drive a standard penetration tool a specific distance into the soil, using a standard application. N-values as obtained are recorded as well as plotted with depth on the office borehole logs.

Percolation tests were carried out in each borehole to determine the absorption characteristics of the soils encountered on the site. The test was carried out over the whole depth of the boreholes.

In carrying out the test, the boreholes were cleared out to the depth explored and then saturated with water continuously. After the saturation period, the boreholes were refilled with water and measurements were made of the fall in water levels over the final measured 30-minute period.

Percolation rates obtained are tabulated below.

TABLE 1: PERCOLATION RATE

BOREHOLE NO.	DIMENSION	PERCOLATION RATE (MIN / INCH)
1	9.1m x 10cm (Dia.)	10
2	12.2m x 10cm (Dia.)	10
3	13.7m x 10cm (Dia.)	12

4.0 SUBSURFACE CONDITIONS

The types of soils encountered on the site during the drilling operation are shown on the office borehole logs contained in appendix 1.

The subsurface conditions as profiled on the borehole logs show, varying combinations of sand, gravel, silt and clay to the depths explored.
The densities of the sand/gravel soils range from 'loose' (borehole No. 3), to 'compact' (borehole Nos. 1 and 2), to 'dense' (borehole No. 1), to 'very dense' (all boreholes). The consistencies of the silt/clay soils range from 'stiff' (borehole No. 3), to 'very stiff' (borehole Nos. 1 and 3), to 'hard' (all boreholes).

5.0 GROUNDWATER OBSERVATIONS

During the drilling operations, groundwater was encountered in borehole No. 3 only, at a depth of 6.1m (20- feet). There was no noticeable change in the water level at the end of the drilling.

6.0 LABORATORY TESTS

The samples recovered from the field exploration were returned to our laboratory in Kingston, where they were carefully laid out and visually examined. Based on this examination, together with the field data, samples were selected and tested for index and classification parameters. The tests conducted include sieve analysis and atterberg limits.

Laboratory test results are contained in appendix 2.

7.0 BEARING CAPACITY CONSIDERATIONS

For the area represented by borehole No. 1, the average allowable bearing pressure to a depth of 1.2m (4-feet) is 3.41 kg/cm^2 (7000 p.s.f.). Below this depth and to a depth of 2.0m (6.5-feet), the average allowable bearing pressure is 1.46 kg/cm^2 (3000 p.s.f.). Below this depth and to a depth of 2.7m (9-feet), the average allowable bearing pressure is 4.39 kg/cm^2 (9000 p.s.f.). Below this depth and to a depth of 3.5m (11.5-feet), the average allowable bearing pressure is 4.88 kg/cm^2 (10000 p.s.f.). Below this depth and to a depth of 5.0m (16.5-feet), the average allowable bearing pressure is 3.41 kg/cm^2 (7000 p.s.f.). Below this depth and to a depth of 6.6m (21.5-feet), the average allowable bearing pressure is 4.39 kg/cm^2 (9000 p.s.f.). Below this depth and to the end of the borehole, the average allowable bearing pressure is 5.85 kg/cm^2 (12000 p.s.f.).

For the area represented by borehole No. 2, the average allowable bearing pressure to a depth of 2.0m (6.5-feet) is 2.68 kg/cm^2 (5500 p.s.f.). Below this depth and to a depth of 2.7m (9-feet), the average allowable bearing pressure is 2.44 kg/cm^2 (5000 p.s.f.). Below this depth and to a depth of 3.5m (11.5-feet), the average allowable bearing pressure is 4.88 kg/cm^2 (10000 p.s.f.). Below this depth and to a depth of 5.0m (16.5-feet), the average allowable bearing pressure is 4.39 kg/cm^2 (9000 p.s.f.). Below this depth and to

a depth of 6.6m (21.5-feet), the average allowable bearing pressure is 4.88 kg/cm^2 (10000 p.s.f.). Below this depth and to a depth of 8.1m (26.5-feet), the average allowable bearing pressure is 1.95 kg/cm^2 (4000 p.s.f.). Below this depth and to a depth of 11.1m (36.5-feet), the average allowable bearing pressure is 3.41 kg/cm^2 (7000 p.s.f.). Below this depth and to the end of the borehole, the average allowable bearing pressure is 5.85 kg/cm^2 (12000 p.s.f.).

For the area represented by borehole No. 3, the average allowable bearing pressure to a depth of 1.2m (4-feet) is 1.22 kg/cm^2 (2500 p.s.f.). Below this depth and to a depth of 2.7m (9-feet), the average allowable bearing pressure is 0.73 kg/cm^2 (1500 p.s.f.). Below this depth and to a depth of 5.0m (16.5-feet), the average allowable bearing pressure is 1.46 kg/cm^2 (3000 p.s.f.). Below this depth and to a depth of 8.1m (26.5-feet), the average allowable bearing pressure is 1.22 kg/cm^2 (2500 p.s.f.). Below this depth and to a depth of 9.6m (31.5-feet), the average allowable bearing pressure is 1.95 kg/cm^2 (4000 p.s.f.). Below this depth and to a depth of 11.1m (36.5-feet), the average allowable bearing pressure is 1.46 kg/cm^2 (3000 p.s.f.). Below this depth and to the end of the borehole, the average allowable bearing pressure is 2.93 kg/cm^2 (6000 p.s.f.).

HILL-BETTY (ENGINEERS) LIMITED

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S. GRAHAM
Geologist.

OFFICE BORE HOLE LOG

BORE HOLE 1 SHEET OF 1

HB

PROJECT Soils Investigation at Royal Rest

LOCATION Burnt Ground, Hanover

DATE Feb. 2007 SURFACE ELEVATION

TYPE OF BORING

HOLLOW STEM AUGER ☑ ROTARY DRILLING ☐

CONE PENETRATION ☐ WASH BORING ☐

TEST PIT ☐

DIA. OF BORING

DEPTH (METERS)	SAMPLE NO.	SAMPLE TYPE	SAMPLE CONDITION	% RECOVERY	STANDARD PENETRATION TEST 1st 0-15M	2nd 0-15M	3rd 0-15M	SOIL LEGEND	DESCRIPTION OF STRATA	LABORATORY TESTS PERFORMED
									Compact light brown gravel and organic clay (OH)	A, M
1.5	1	SS	D	72	7	8	10		Very stiff light brown sandy organic clay with some gravel (OH)	A, M
	2	SS	D	67	9	12	13		Compact light brown silty sandy gravel	
3	3	SS	D	72	10	12	18		Dense cream brown sandy gravel	
	4	SS	D	61	10	17	24		Hard light brown gravelly organic clay with some sand	
4.5	5	SS	D	56	25	30	36		Hard light brown sandy organic clay with some gravel	
6	6	SS	D	72	30	35	48		Very dense light brown clayey sandy gravel (OH)	A, M
7.5	7	SS	D	72	36	48	51		Very dense cream brown sandy gravel	
9	8	SS	D	22	51/4"	-	-			

● unc. compr. str. (T/ft.^{2}) 1 2 3 4 5 6

W_P W W_L

CONE PENETRATION ☐

N – VALUE ☐

10 20 30 40 50 60

SOIL SYMBOLS: SHATTERED BEDROCK, FILL, PEAT OR ORGANICS, CLAY, SILT, SAND, GRAVEL, BOULDER, SEA SHELLS, SOUND BEDROCK

SAMPLE CONDITION
D – DISTURBED
L – LOST
F – FAIR
G – GOOD (UNDISTURBED)

SAMPLE TYPE
SS – SPLIT SPOON
TW – THIN WALL SHELBY
BS – BAG SAMPLE
WS – WASH SAMPLE
RC – ROCK CORE

LABORATORY TEST SYMBOLS
A – ATTERBERG LIMITS
C – CONSOLIDATION
D – DENSITY
H – HYDROMETER
M – MECH. ANALYSIS
S – SHEAR
T – TRIAXIAL

OTHER SYMBOLS
WATER LEVEL

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OFFICE BOREHOLE LOG

BORE HOLE 2 SHEET 1 OF 2

PROJECT Soils Investigation at Royal Rest

LOCATION Burnt Ground, Hanover

DATE Feb. 2007 SURFACE ELEVATION

TYPE OF BORING

HOLLOW STEM AUGER ☑ ROTARY DRILLING ☐

CONE PENETRATION ☐ WASH BORING ☐

TEST PIT ☐

DIA. OF BORING

DEPTH (METERS)	SAMPLE NO.	SAMPLE TYPE	SAMPLE CONDITION	% RECOVERY	STANDARD PENETRATION TEST 1st 0.15M	2nd 0.15M	3rd 0.15M	DESCRIPTION OF STRATA	LABORATORY TESTS PERFORMED
	1	SS	D	61	8	10	11	Compact light brown gravelly silty sand (MH)	A, M
1.5	2	SS	D	44	10	10	12	Hard light brown sandy silt with trace gravel (MH)	A
	3	SS	D	72	18	19	28	Very dense light brown silty sand and gravel	M
3	4	SS	D	56	22	26	38	Very dense light brown silty sand with some gravel	M
4.5	5	SS	D	78	27	27	32	Very dense light brown sand and gravel with some clay (OH)	A
6	6	SS	D	89	27	31	34	Hard light brown sandy organic clay with trace gravel	
7.5	7	SS	D	83	28	30	38	Hard light brown clayey silt with some sand and gravel	

unc. compr. str. (T/ft.²) 1 2 3 4 5 6

W_P W W_L

CONE PENETRATION ☐

N – VALUE ☐

10 20 30 40 50 60

SOIL LEGEND

SOIL SYMBOLS: SHATTERED BEDROCK, FILL, PEAT OR ORGANICS, CLAY, SILT, SAND, GRAVEL, BOULDER, SEA SHELLS, SOUND BEDROCK

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OTHER SYMBOLS
WATER LEVEL

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OFFICE BOR LE LOG

BORE HOLE 2 SHEET 1 OF 2

PROJECT Soils Investigation at Royal Rest

LOCATION Burnt Ground, Hanover

DATE Feb. 2007 SURFACE ELEVATION

TYPE OF BORING

HOLLOW STEM AUGER ☑ ROTARY DRILLING ☐

CONE PENETRATION ☐ WASH BORING ☐

TEST PIT ☐

DIA. OF BORING

DEPTH (METERS)	SAMPLE NO.	SAMPLE TYPE	SAMPLE CONDITION	% RECOVERY	STANDARD PENETRATION TEST 1st 0·15M	2nd 0·15M	3rd 0·15M	SOIL LEGEND	DESCRIPTION OF STRATA	LABORATORY TESTS PERFORMED
9	8	SS	D	44	32	51/2"	-		Hard light brown clayey silt with some sand and gravel	
10·6	9	SS	D	44	46	51/2"	-		Hard light brown sandy clayey silt	
12	10	SS	D	17	51/3"	-	-		Very dense cream brown sandy gravel	
13·5									End of borehole - 12.2m	
15										
16·9										

unc. compr. str. (T/ft.²) 1 2 3 4 5 6

W_P W W_L

CONE PENETRATION ☐

N – VALUE ☐ 10 20 30 40 50 60

SOIL SYMBOLS: SHATTERED BEDROCK; FILL; PEAT OR ORGANICS; CLAY; SILT; SAND; GRAVEL; BOULDER; SEA SHELLS; SOUND BEDROCK

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OTHER SYMBOLS
WATER LEVEL

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OFFICE BOR(LE LOG

BORE HOLE 3 SHEET (OF 2

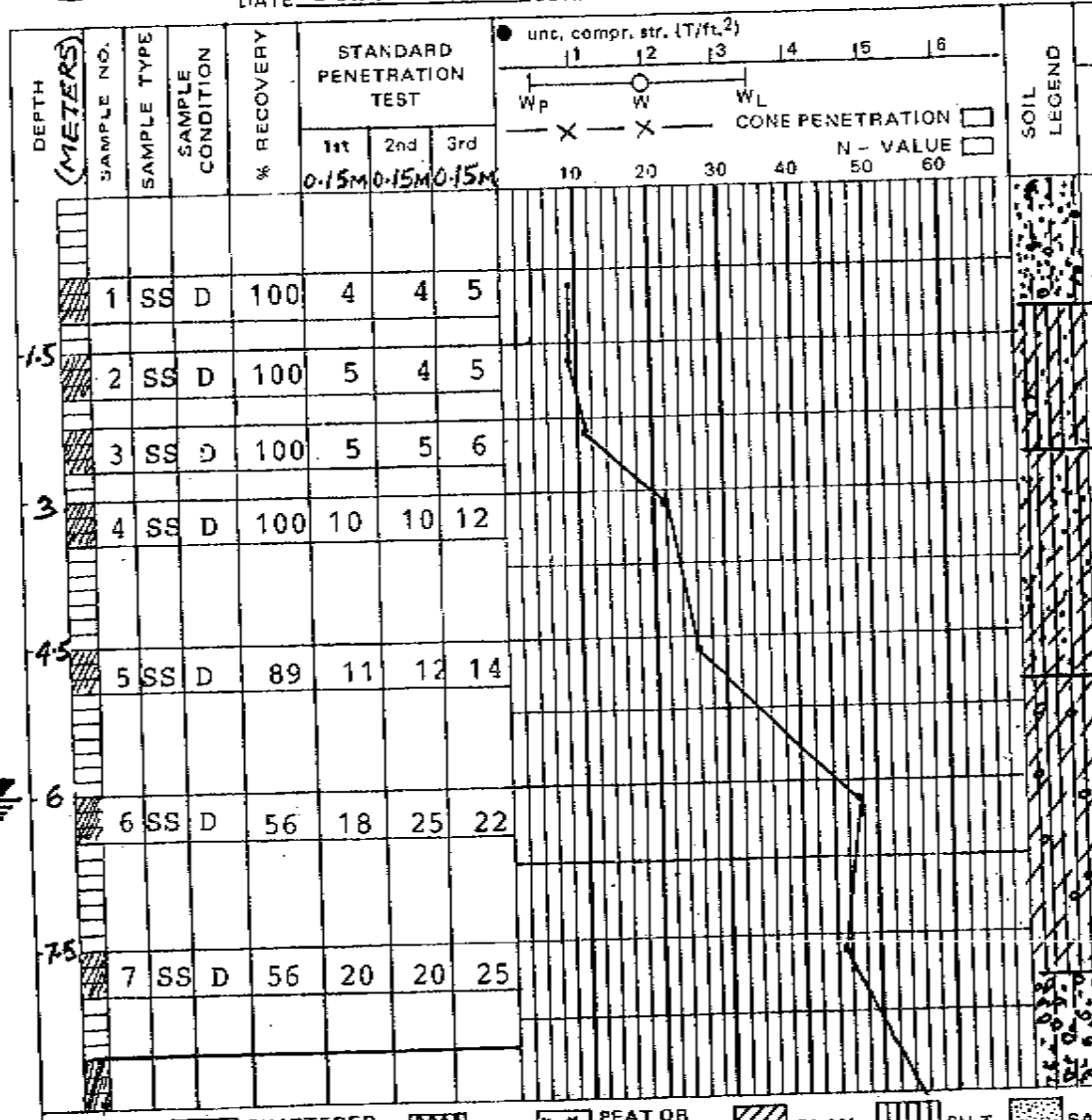
PROJECT Soils Investigation at Royal Rest

LOCATION Burnt Ground, Hanover

DATE Feb. 2007 SURFACE ELEVATION

TYPE OF BORING
HOLLOW STEM AUGER ☐ ROTARY DRILLING ☐
CONE PENETRATION ☐ WASH BORING ☐
TEST PIT ☐

DIA. OF BORING



DESCRIPTION OF STRATA	LABORATORY TESTS PERFORMED
Loose light brown silty sand with trace gravel	M
Stiff light brown clayey silt with some sand (MH)	A
Very stiff light brown clayey silt with some sand	
Hard light brown clayey silt with trace gravel	
Very dense light brown silty gravelly sand	

SOIL SYMBOLS: SHATTERED BEDROCK; FILL; PEAT OR ORGANICS; CLAY; SILT; SAND; GRAVEL; BOULDER; SEA SHELLS; SOUND BEDROCK

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BORE HOLE 3 SHEET 1 OF 2

PROJECT Soils Investigation at Royal Rest

LOCATION Burnt Ground, Hanover

DATE Feb. 2007 SURFACE ELEVATION

TYPE OF BORING

HOLLOW STEM AUGER ✓ ROTARY DRILLING

CONE PENETRATION WASH BORING

TEST PIT

DIA. OF BORING

DEPTH (METERS)	SAMPLE NO.	SAMPLE TYPE	SAMPLE CONDITION	% RECOVERY	STANDARD PENETRATION TEST 1st 0.15M	2nd 0.15M	3rd 0.15M	unc. compr. str. (T/ft.²) 1 2 3 4 5 6 / W_P W W_L / CONE PENETRATION / N – VALUE 10 20 30 40 50 60	SOIL LEGEND	DESCRIPTION OF STRATA	LABORATORY TESTS PERFORMED
0										Very dense light brown silty gravelly sand	
	8	SS	D	67	20	26	30			Hard light brown sandy silt with some gravel	
10.5	9	SS	D	78	31	32	34			Very dense light brown silty gravel and sand	M
12	10	SS	D	11	51/2"	–	–			Very dense light brown gravel with some sand and silt	
13.5	11	SS	D	6	51/1"	–	–			End of borehole - 13.7m	
15											
16.5											

SOIL SYMBOLS: SHATTERED BEDROCK; FILL; PEAT OR ORGANICS; CLAY; SILT; SAND; GRAVEL; BOULDER; SEA SHELLS; SOUND BEDROCK

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TERMS USED ON BOREHOLE LOGS

COARSE GRAINED SOILS (major portion retained on No. 200 sieve): includes boulders, gravels and sands either separately or in combination or with some silt.

DESCRIPTIVE TERM	VERY LOOSE	LOOSE	~~MEDIUM~~ COMPACT	DENSE	VERY DENSE	
Relative Density	0	15%	35%	65%	85%	100%
N – Value (blows/ft.)	0	4	10	30	50	
ϕ (degrees)*	25-30	27-32	30-35	35-40	38-43	
Density (pcf) moist	<100	95-125	110-130	110-140	130+	
Submerged	<60	55-65	60-70	65-85	75+	

* Increase 5 degrees for soils containing less than 5% fine sand or silt

FINE GRAINED SOILS (major portion passing No. 200 sieve): includes inorganic and organic silts and clays, gravelly sandy silty clays and claycy silts.

DESCRIPTIVE TERM	VERY SOFT	SOFT	~~MEDIUM~~ FIRM	STIFF	VERY STIFF	HARD
Undrained shear strength (ksf)	0	0.5	1.0	2.0	4.0	8.0
N – value (blows/ft)	0	2	4	8	16	32
Density (pcf) (saturated)		100-120	110-130	120-140		130+

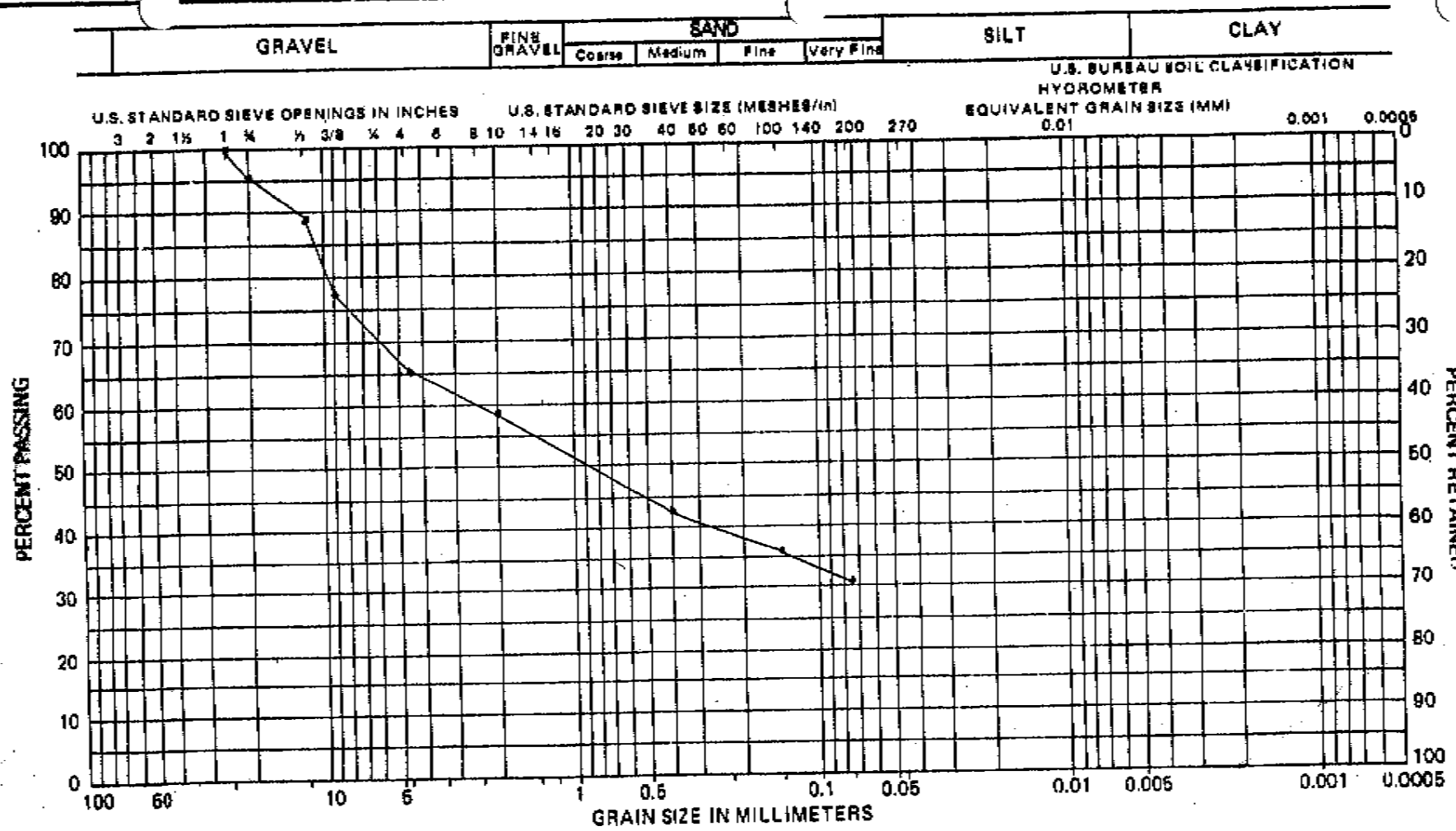
TERMINOLOGY

Terminology used for describing various soil strata encountered in a borehole is based upon the proportion of individual particle sizes in the deposit as follows:

DESCRIPTIVE TERM	PROPORTION (%)
Trace	<10
Some	10 - 20
Adjective (eg silty)	20 - 35
And (eg silt and sand)	35 - 50

P – Penetration tool penetrates soil under weight of hammer (N-value = 0)

R – Penetration tool driven but does not penetrate soil



GRAVEL		SAND			CLAY & SILT
Coarse	Fine	Coarse	Medium	Fine	

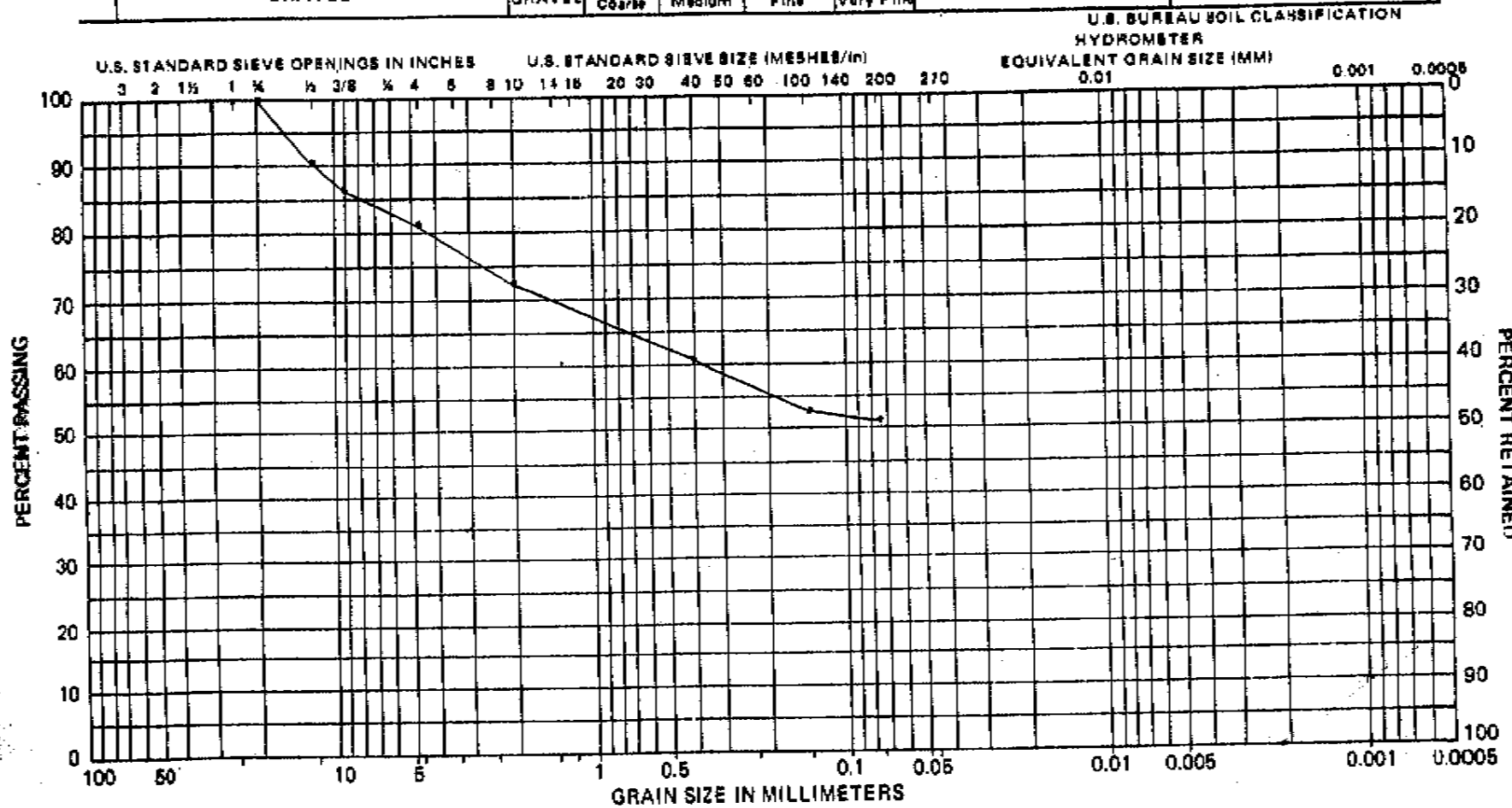
Unified Classification

LOCATION	SAMPLE No.	DEPTH	DESCRIPTION
Burnt Ground Hanover	BH 1/1	0.8m - 1.2m	Sandy gravel and organic clay

GRAIN SIZE DISTRIBUTION

APPENDIX
FIGURE
PROJECT

GRAVEL	FINE GRAVEL	SAND				SILT	CLAY
		Coarse	Medium	Fine	Very Fine		



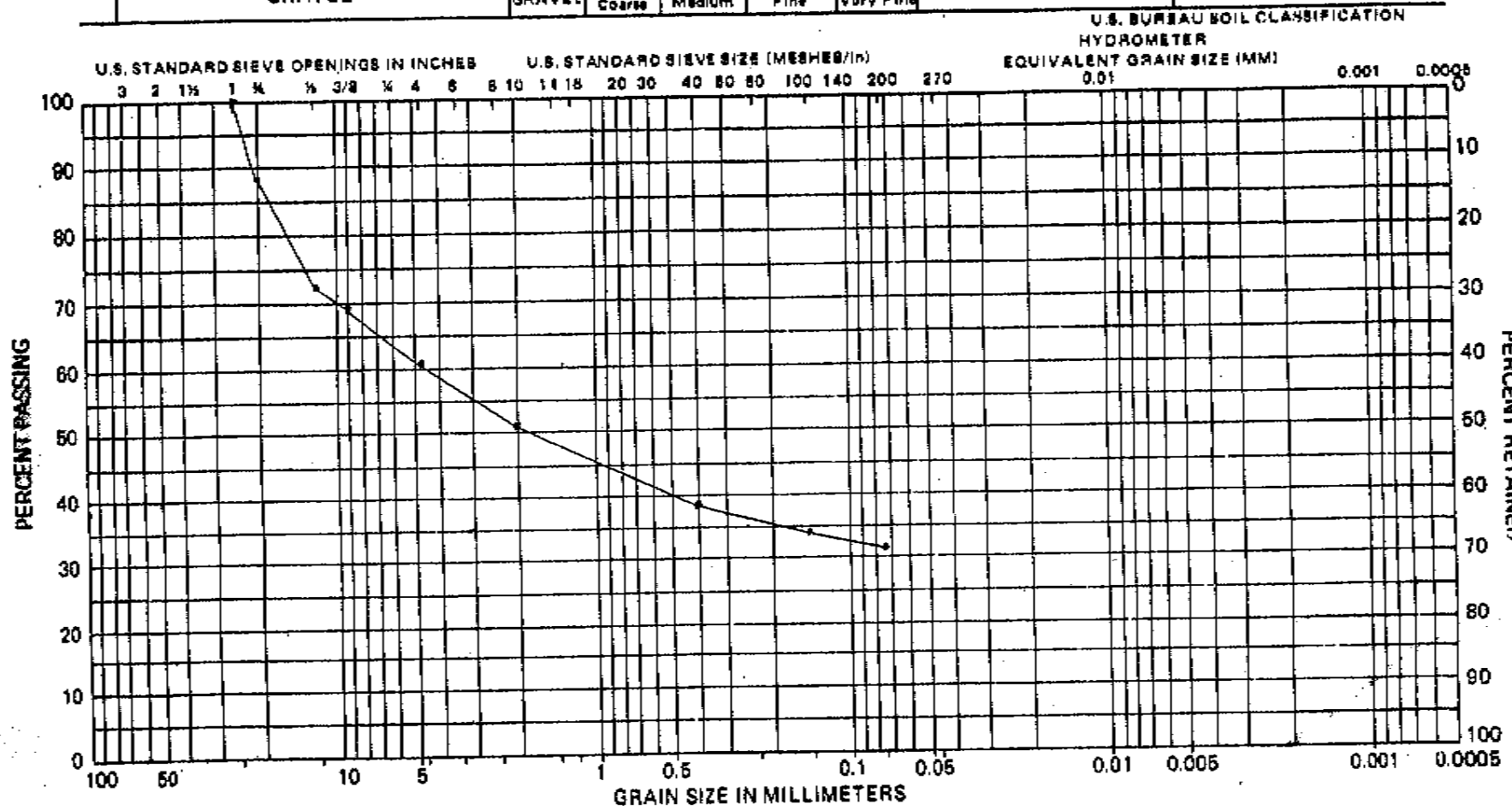
GRAVEL		SAND			CLAY & SILT
Coarse	Fine	Coarse	Medium	Fine	

Unified Classification

LOCATION	SAMPLE No.	DEPTH	DESCRIPTION
Burnt Ground Hanover	BH 1/2	1.5m - 2.0m	sandy organic silt with some gravel

GRAIN SIZE DISTRIBUTION

APPENDIX
FIGURE
PROJECT



GRAVEL		SAND			CLAY & SILT
Coarse	Fine	Coarse	Medium	Fine	

Unified Classification

LOCATION	SAMPLE No.	DEPTH	DESCRIPTION
Burnt Ground Harover	BH 1/3	2.3m - 2.7m	Silty sand and gravel

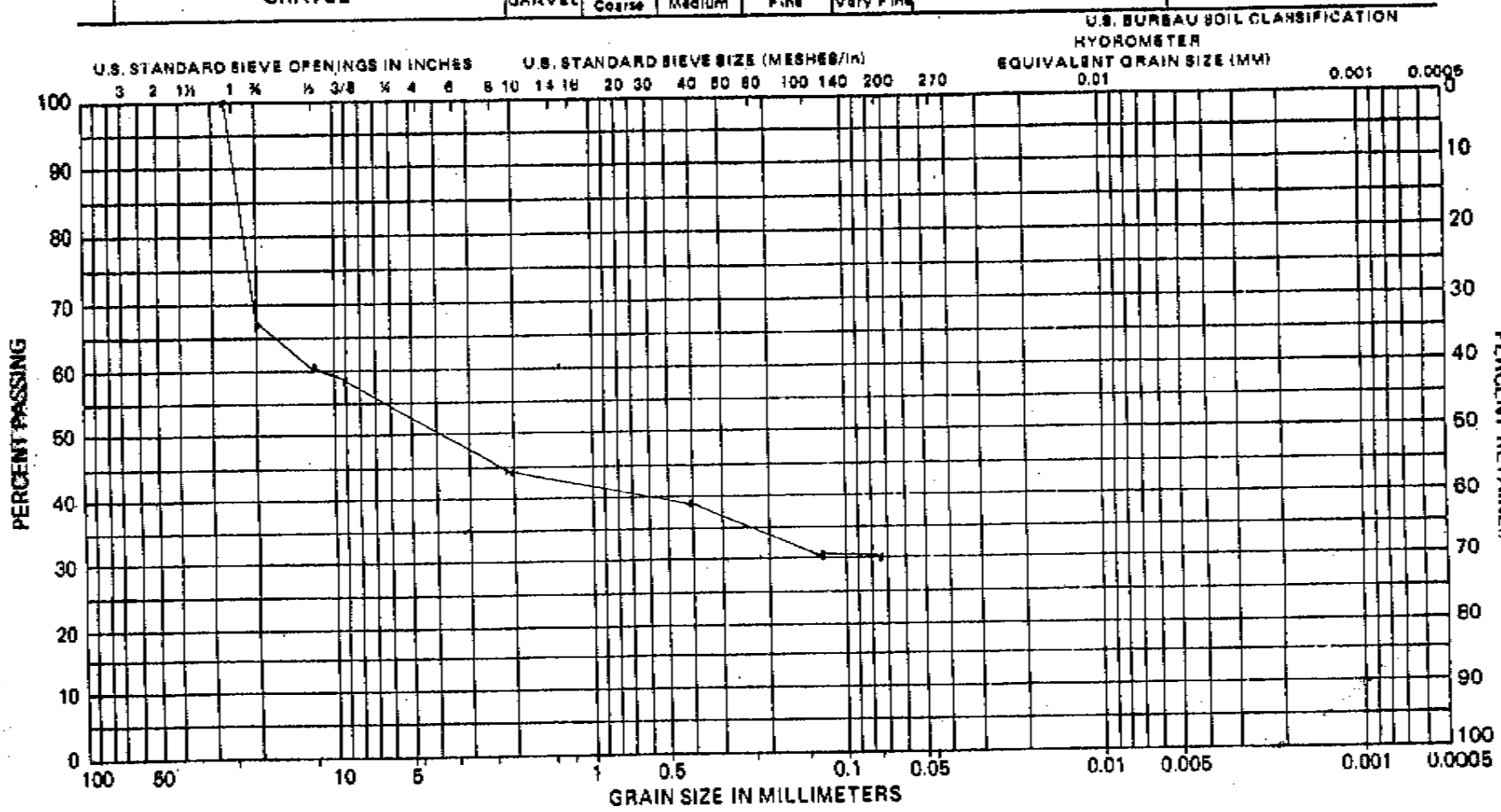
GRAIN SIZE DISTRIBUTION

APPENDIX
FIGURE
PROJECT

GRAIN SIZE DISTRIBUTION

HB

APPENDIX
FIGURE
PROJECT

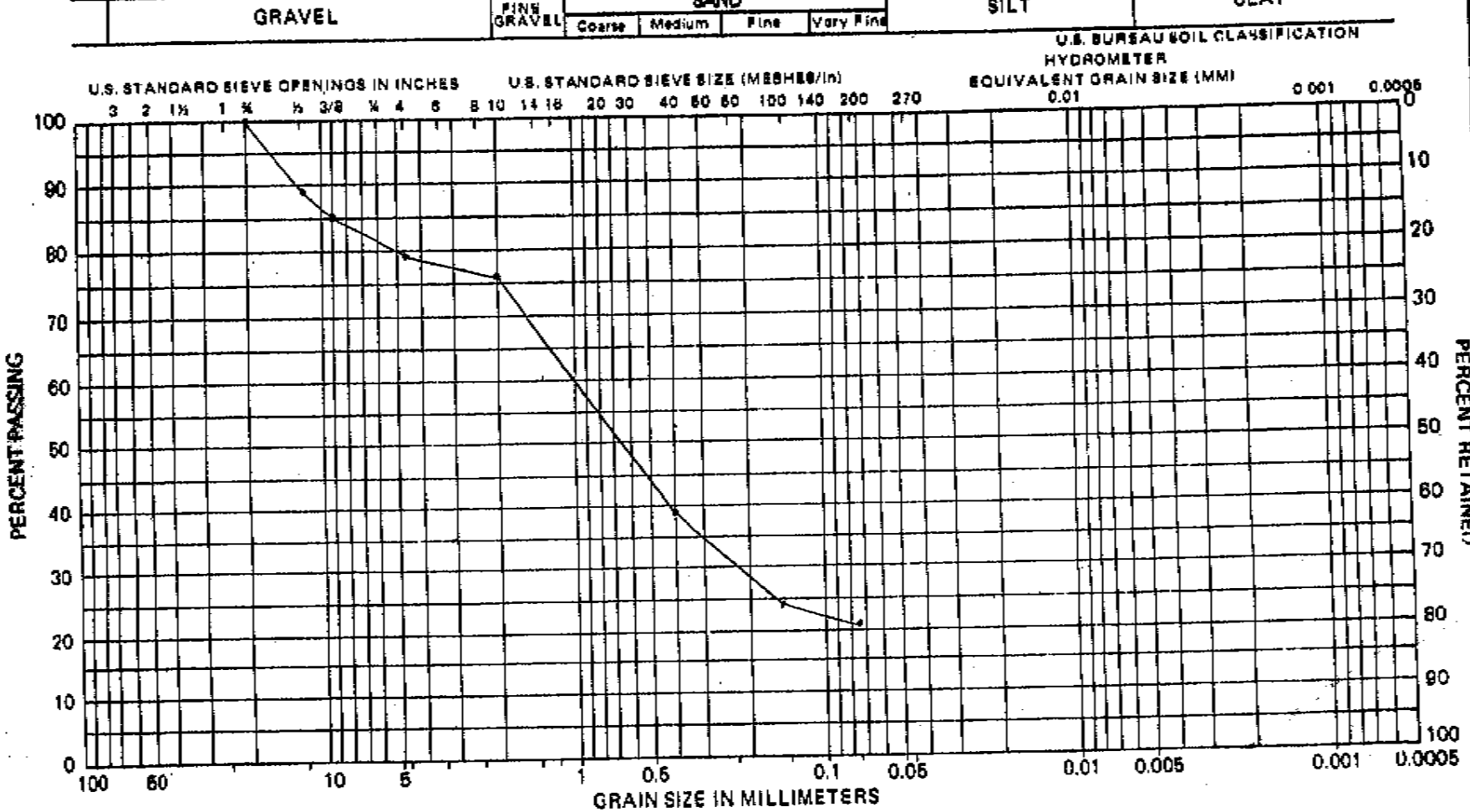


GRAVEL		SAND			CLAY & SILT
Coarse	Fine	Coarse	Medium	Fine	

Unified Classification

LOCATION	SAMPLE No.	DEPTH	DESCRIPTION
Burnt Ground Hanover	BH 1/7	7.6m - 8.1m	Organic clayey sandy gravel

GRAIN SIZE DISTRIBUTION



GRAVEL		SAND			CLAY & SILT
Coarse	Fine	Coarse	Medium	Fine	

Unified Classification

LOCATION	SAMPLE No.	DEPTH	DESCRIPTION
Burnt Ground Hanover	Bh 2/1	0.8m - 1.2m	Silty gravelly sand

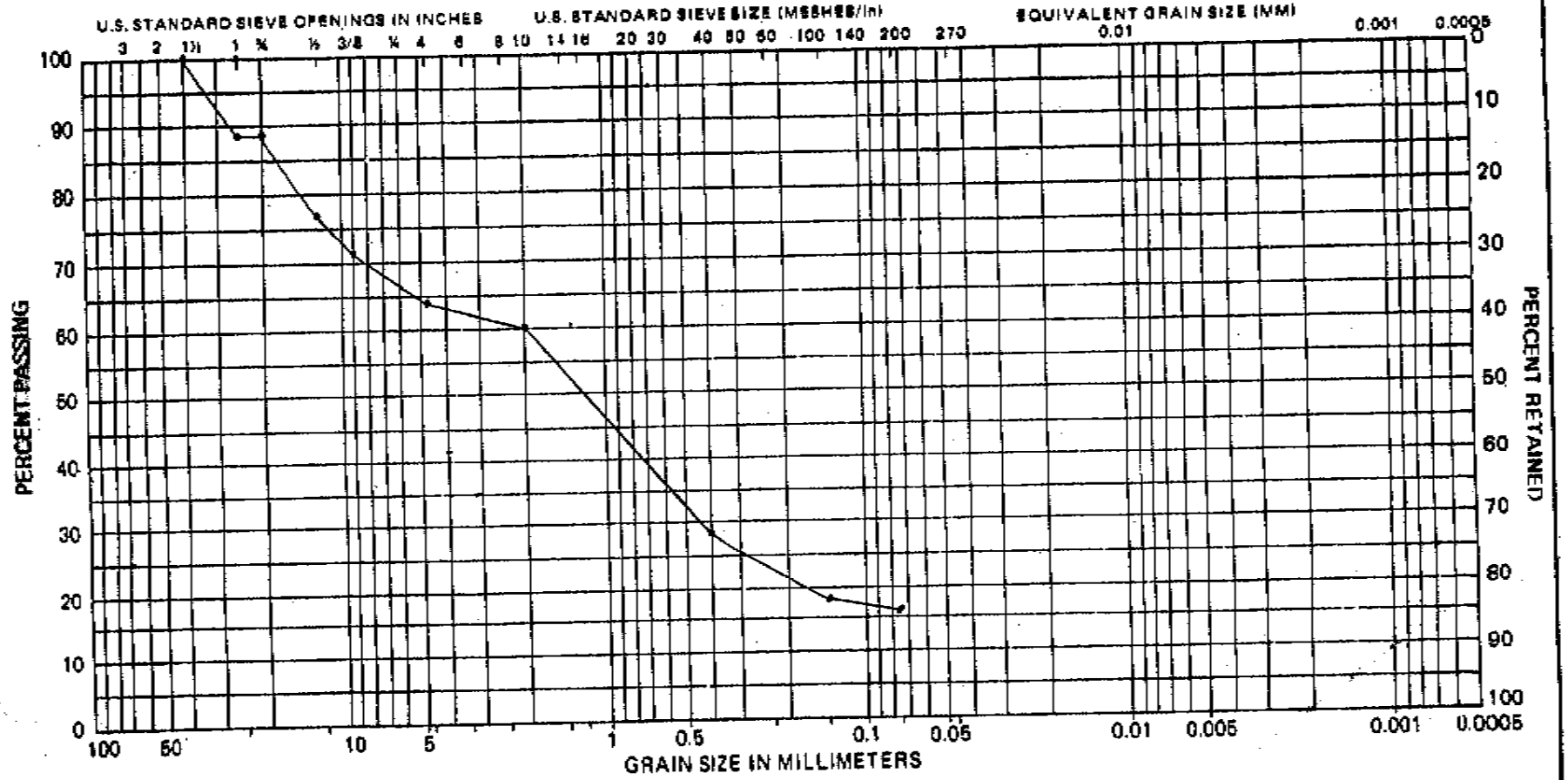
APPENDIX
FIGURE
PROJECT

GRAIN SIZE DISTRIBUTION

HB

GRAVEL	FINE GRAVEL	SAND				SILT	CLAY
		Coarse	Medium	Fine	Very Fine		

U.S. BUREAU SOIL CLASSIFICATION



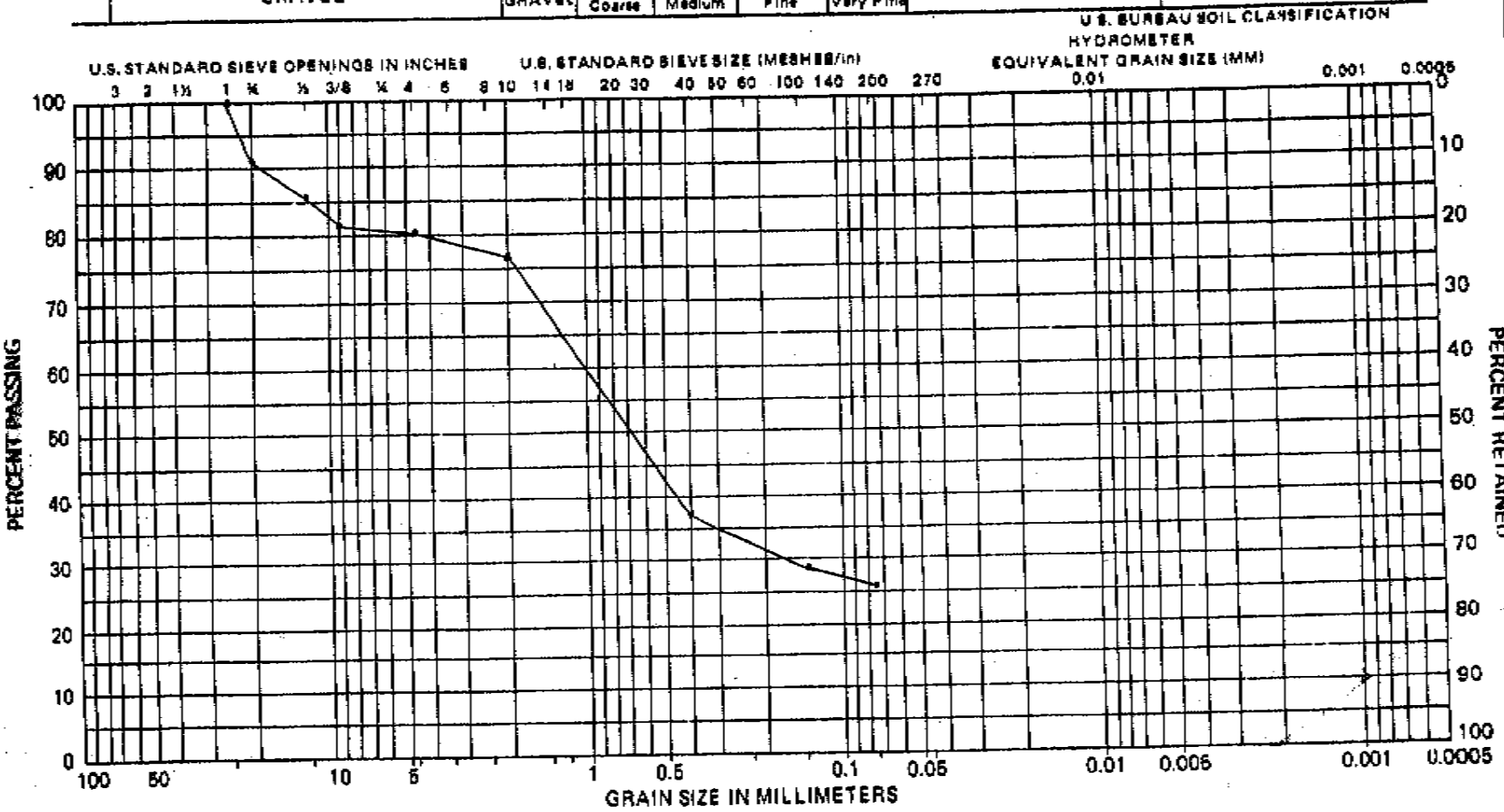
GRAVEL		SAND			CLAY & SILT
Coarse	Fine	Coarse	Medium	Fine	

Unified Classification

LOCATION	SAMPLE No.	DEPTH	DESCRIPTION
Burnt Ground Hanover	BH 2/6	6.1m - 6.6m	Sand and gravel with some organic clay

APPENDIX
FIGURE
PROJECT

GRAIN SIZE DISTRIBUTION



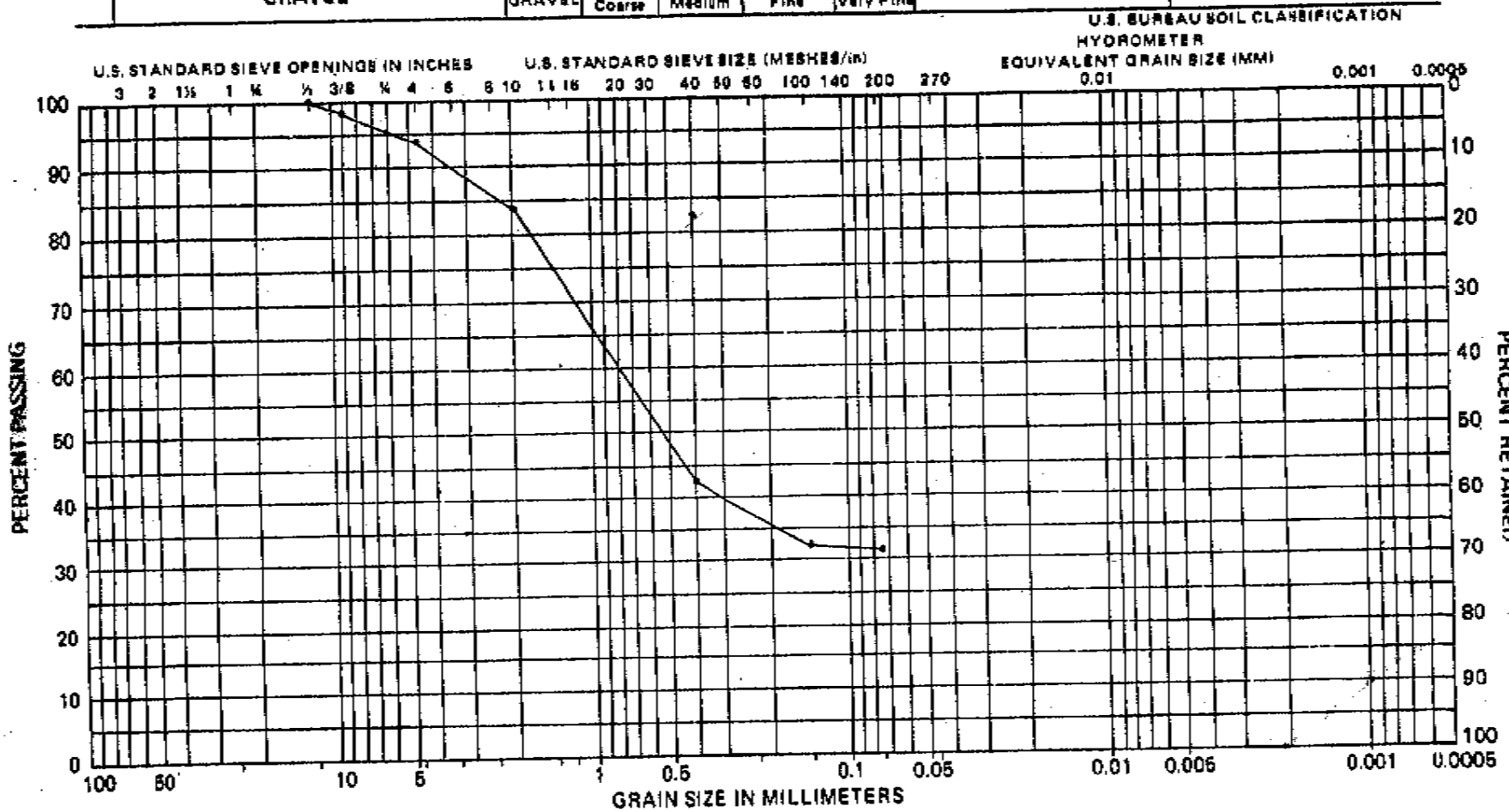
GRAVEL		SAND			CLAY & SILT
Coarse	Fine	Coarse	Medium	Fine	

Unified Classification

LOCATION	SAMPLE No.	DEPTH	DESCRIPTION
Burnt Ground Hanover	BH 2/5	4.6m - 5.0m	Silty sand with some gravel

APPENDIX
FIGURE
PROJECT

GRAIN SIZE DISTRIBUTION



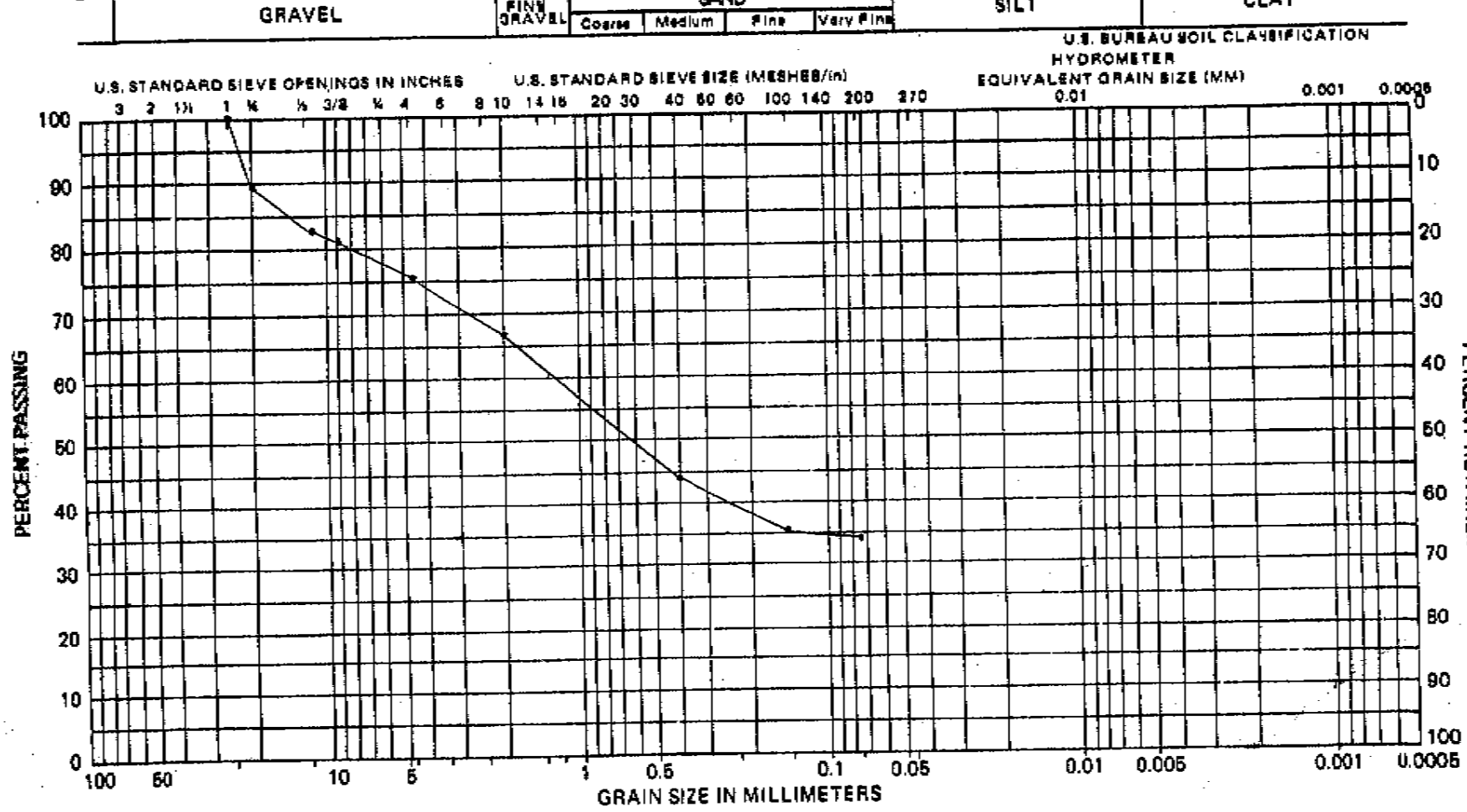
GRAVEL		SAND			CLAY & SILT
Coarse	Fine	Coarse	Medium	Fine	

Unified Classification

LOCATION	SAMPLE No.	DEPTH	DESCRIPTION
Burnt Ground Hanover	BH 3/1	0.8m - 1.2m	Silty sand

APPENDIX
FIGURE
PROJECT

GRAIN SIZE DISTRIBUTION



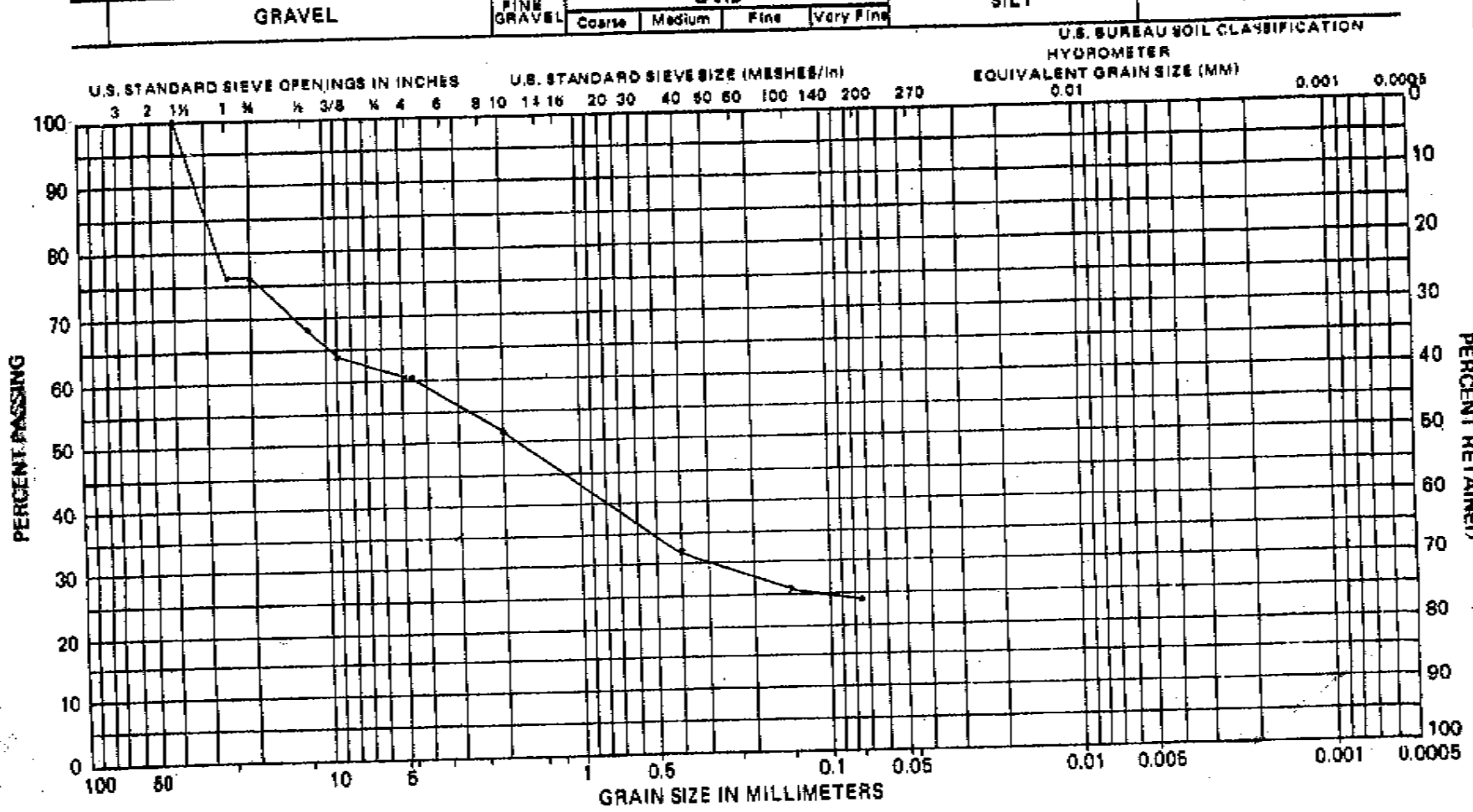
GRAVEL		SAND			CLAY & SILT
Coarse	Fine	Coarse	Medium	Fine	

Unified Classification

LOCATION	SAMPLE No.	DEPTH	DESCRIPTION
Burnt Ground Hanover	BH 3/8	9.1m - 9.6m	Silty gravelly sand

APPENDIX
FIGURE
PROJECT

GRAIN SIZE DISTRIBUTION



GRAVEL		SAND			CLAY & SILT
Coarse	Fine	Coarse	Medium	Fine	Unified Classification

LOCATION	SAMPLE No.	DEPTH	DESCRIPTION
Burnt Ground Hanover	BH 3/10	12.2m - 12.7m	Silty gravel and sand

APPENDIX
FIGURE
PROJECT

HILL - BETTY (ENGINEERS) LTD.

CIVIL ENGINEERS & CONTRACTORS

SOIL MECHANICS LABORATORY

ATTERBERG LIMITS

SOIL SAMPLE: Light brown sandy gravel and organic clay

Locat.: Burnt Ground, Hanover

Boring No: 1 Sample depth: 0.8m - 1.2m

JOB No:

Test No:

Sample No: 1

Date: 9/3/07

Tested by: D. Myrie

PLASTIC LIMIT

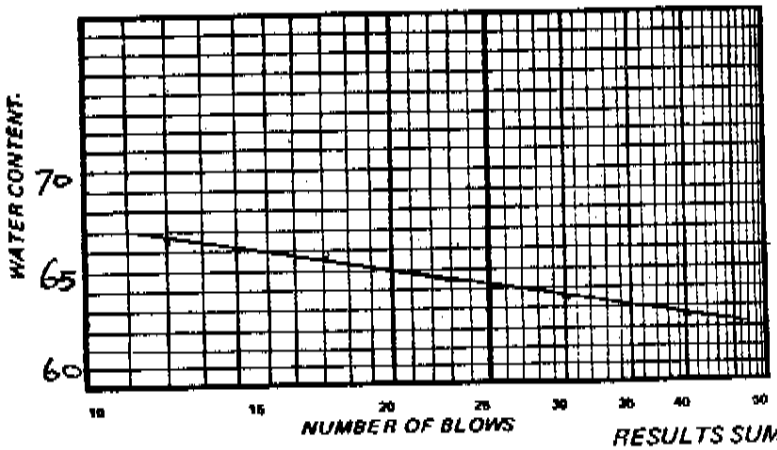
DETERMINATION NO.	1	2	3
CONTAINER NUMBER	44	36	
NUMBER OF BLOWS	xxx	xxx	
Wt. SAMPLE & TARE WET	50.70	50.85	
Wt. SAMPLE & TARE DRY	44.86	44.99	
Wt. OF WATER	5.84	5.86	
TARE	31.44	31.67	
Wt. OF DRY SOIL	13.42	13.32	
WATER CONTENT	43.52	43.54	43.53

NATURAL WATER CONTENT

1	2	3

LIQUID LIMIT

DETERMINATION NO.	1	2	3	4	5
NUMBER OF BLOWS	12	17	23	30	40
CONTAINER NUMBER	44	11	40	86	56
Wt. SAMPLE & TARE WET	42.33	43.67	44.45	45.42	46.98
Wt. SAMPLE & TARE DRY	35.26	36.27	36.71	37.53	38.68
Wt. OF WATER	7.07	7.34	7.74	7.89	8.30
TARE	24.63	25.07	24.71	25.11	25.41
Wt. OF DRY SOIL	10.63	11.20	12.00	12.42	13.27
WATER CONTENT	66.51	65.54	64.50	63.53	62.55



REMARKS: The organic clay fraction of the soil is of high compressibility (OH)

RESULTS SUMMARY

natural water content	liquid limit	plastic limit	plasticity index	water-plasticity ratio, B	flow index	toughness index
	64.20	43.53	20.67			

HILL - BETTY (ENGINEERS) LTD.

CIVIL ENGINEERS & CONTRACTORS

SOIL MECHANICS LABORATORY

ATTERBERG LIMITS

SOIL SAMPLE: Light brown sandy organic clay

Locat.: Burnt Ground, Hanover

Boring No: 1 Sample depth: 1.5m - 2.0m

JOB No:

Test No:

Sample No: 2

Date: 9/3/07

Tested by: D. Myrie

PLASTIC LIMIT

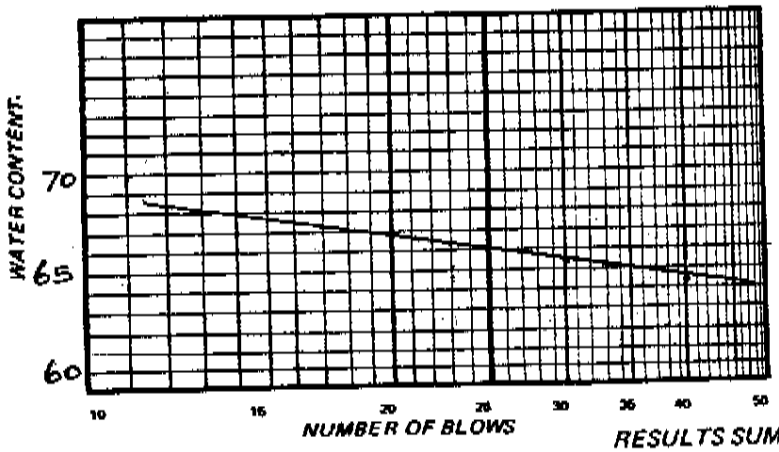
DETERMINATION NO.	1	2	3
CONTAINER NUMBER	48	19	
NUMBER OF BLOWS	xxx	xxx	
Wt. SAMPLE & TARE WET	51.43	51.66	
Wt. SAMPLE & TARE DRY	46.12	46.10	
Wt. OF WATER	5.31	5.56	
TARE	34.72	34.51	
Wt. OF DRY SOIL	11.40	11.59	
WATER CONTENT	46.58	47.97	46.78

NATURAL WATER CONTENT

1	2	3

LIQUID LIMIT

DETERMINATION NO.	1	2	3	4	5
NUMBER OF BLOWS	12	17	23	30	40
CONTAINER NUMBER	43	42	11	9	45
Wt. SAMPLE & TARE WET	50.21	51.28	52.41	54.83	55.76
Wt. SAMPLE & TARE DRY	42.83	43.52	44.11	45.32	46.48
Wt. OF WATER	7.38	7.76	8.00	8.91	9.26
TARE	32.03	32.00	32.05	31.68	32.08
Wt. OF DRY SOIL	10.80	11.52	12.06	13.64	14.40
WATER CONTENT	68.33	67.36	66.33	65.32	64.31



REMARKS: The organic clay fraction of the soil is of high compressibility (OH).

RESULTS SUMMARY

natural water content	liquid limit	plastic limit	plasticity index	water-plasticity ratio, B	flow index	toughness index
	66.00	46.78	19.22			

HILL - BETTY (ENGINEERS) LTD.

CIVIL ENGINEERS & CONTRACTORS

HB

SOIL MECHANICS LABORATORY

ATTERBERG LIMITS

SOIL SAMPLE Light brown organic clayey sandy gravel

Locat. Burnt Ground, Hanover

Boring No 1 Sample depth 7.6m - 8.1m

JOB No

Test No

Sample No 7

Date 9/3/07

Tested by D. Myrie

PLASTIC LIMIT

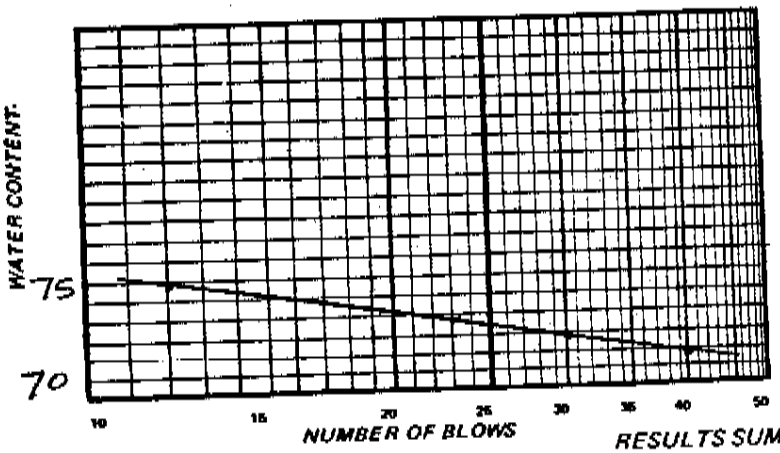
DETERMINATION NO.	1	2	3
CONTAINER NUMBER	27	38	
NUMBER OF BLOWS	xxx	xxx	
Wt. SAMPLE & TARE WET	50.42	50.38	
Wt. SAMPLE & TARE DRY	45.47	45.24	
Wt. OF WATER	4.95	5.14	
TARE	34.33	33.94	
Wt. OF DRY SOIL	11.14	11.28	
WATER CONTENT	44.43	45.57	45.00

NATURAL WATER CONTENT

1	2	3

LIQUID LIMIT

DETERMINATION NO.	1	2	3	4	5
NUMBER OF BLOWS	12	17	23	30	40
CONTAINER NUMBER	12	49	10	22	14
Wt. SAMPLE & TARE WET	50.51	51.67	51.07	52.23	54.14
Wt. SAMPLE & TARE DRY	42.44	43.31	42.81	43.72	44.80
Wt. OF WATER	8.07	8.36	8.23	8.51	9.34
TARE	31.65	31.98	31.50	31.86	31.60
Wt. OF DRY SOIL	10.79	11.33	11.31	11.86	13.20
WATER CONTENT	74.79	73.79	72.77	71.75	70.76



REMARKS The organic clay fraction of the soil is of high compressibility (OH)

RESULTS SUMMARY

natural water content	liquid limit	plastic limit	plasticity index	water-plasticity ratio,B	flow index	toughness index
	72.40	45.00	27.40			

HILL - BETTY (ENGINEERS) LTD.

CIVIL ENGINEERS & CONTRACTORS

SOIL MECHANICS LABORATORY

ATTERBERG LIMITS

SOIL SAMPLE: Light brown silty gravelly sand

Locat.: Burnt Ground, Hanover

Boring No: 2 Sample depth: 0.8m - 1.2m

JOB No:

Test No:

Sample No: 1

Date: 9/3/07

Tested by: D. Myrie

PLASTIC LIMIT

DETERMINATION NO.	1	2	3
CONTAINER NUMBER	1	37	
NUMBER OF BLOWS	xxx	xxx	
Wt. SAMPLE & TARE WET	50.84	47.91	
Wt. SAMPLE & TARE DRY	45.39	43.09	
Wt. OF WATER	5.45	4.82	
TARE	31.30	31.10	
Wt. OF DRY SOIL	14.09	11.99	
WATER CONTENT	38.68	40.20	39.44

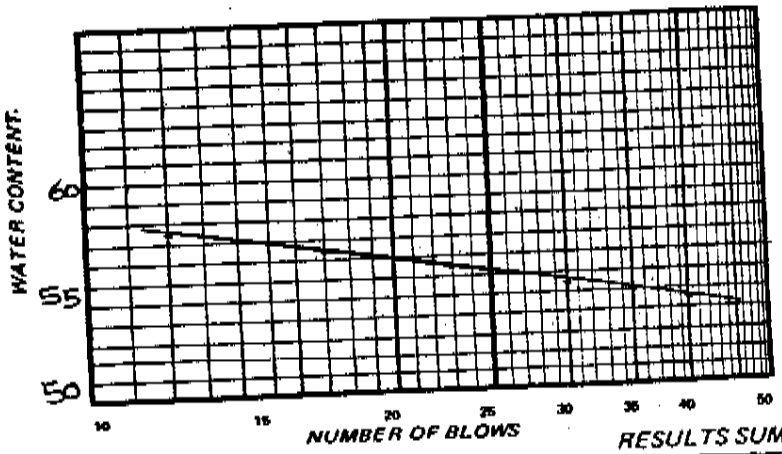
NATURAL WATER CONTENT

1	2	3

LIQUID LIMIT

DETERMINATION NO.	1	2	3	4	5
NUMBER OF BLOWS	12	17	23	30	40
CONTAINER NUMBER	27	17	35	8	45
Wt. SAMPLE & TARE WET	40.47	41.68	42.68	43.47	44.43
Wt. SAMPLE & TARE DRY	34.96	35.38	36.28	37.05	37.58
Wt. OF WATER	5.51	6.24	6.34	6.42	6.85
TARE	25.36	24.32	24.85	25.26	24.76
Wt. OF DRY SOIL	9.60	11.06	11.43	11.79	12.82
WATER CONTENT	57.40	56.42	55.47	54.45	53.43

REMARKS: The silt fraction of the soil is of high compressibility (MH)



RESULTS SUMMARY

natural water content	liquid limit	plastic limit	plasticity index	water-plasticity ratio,B	flow index	toughness index
	55.10	39.44	15.66			

HILL - BETTY (ENGINEERS) LTD.

CIVIL ENGINEERS & CONTRACTORS

HB

SOIL MECHANICS LABORATORY

ATTERBERG LIMITS

SOIL SAMPLE: Light brown sandy silt with trace gravel

Locat.: Burnt Ground, Hanover

Boring No: 2 Sample depth:

JOB No:

Test No:

Sample No: 3

Date: 9/3/07

Tested by: D. Myrie

PLASTIC LIMIT

DETERMINATION NO.	1	2	3
CONTAINER NUMBER	99	34	
NUMBER OF BLOWS	xxx	xxx	
Wt. SAMPLE & TARE WET	50.35	49.88	
Wt. SAMPLE & TARE DRY	45.15	45.19	
Wt. OF WATER	5.20	4.69	
TARE	33.72	34.56	
Wt. OF DRY SOIL	11.43	10.63	
WATER CONTENT	45.49	44.12	44.81

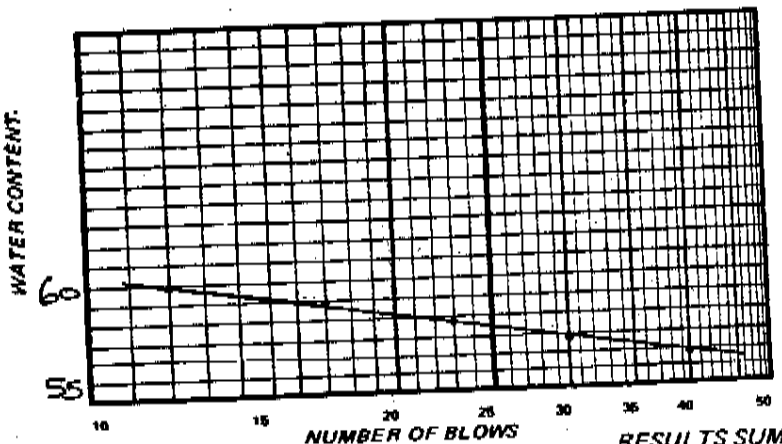
NATURAL WATER CONTENT

1	2	3

LIQUID LIMIT

DETERMINATION NO.	1	2	3	4	5
NUMBER OF BLOWS	12	17	23	30	40
CONTAINER NUMBER	35	29	4	71	38
Wt. SAMPLE & TARE WET	50.35	51.29	52.20	53.14	52.98
Wt. SAMPLE & TARE DRY	43.31	43.96	44.63	45.24	45.80
Wt. OF WATER	7.04	7.33	7.57	7.87	8.18
TARE	31.57	31.52	31.56	31.42	31.17
Wt. OF DRY SOIL	11.74	12.44	13.07	13.82	14.63
WATER CONTENT	59.97	58.92	57.92	56.95	55.91

REMARKS: The silt fraction of the soil is of high compressibility (MH)



RESULTS SUMMARY

natural water content	liquid limit	plastic limit	plasticity index	water-plasticity ratio,B	flow index	toughness index
	57.80	44.81	12.99			

HILL - BETTY (ENGINEERS) LTD.

CIVIL ENGINEERS & CONTRACTORS

HB

SOIL MECHANICS LABORATORY

ATTERBERG LIMITS

SOIL SAMPLE Light brown sand and gravel with some organic clay

Locat. Burnt Ground, Hanover

Boring No 2 Sample depth 6.1m - 6.6m

JOB No

Test No

Sample No 6

Date 9/3/07

Tested by D. Myrie

PLASTIC LIMIT

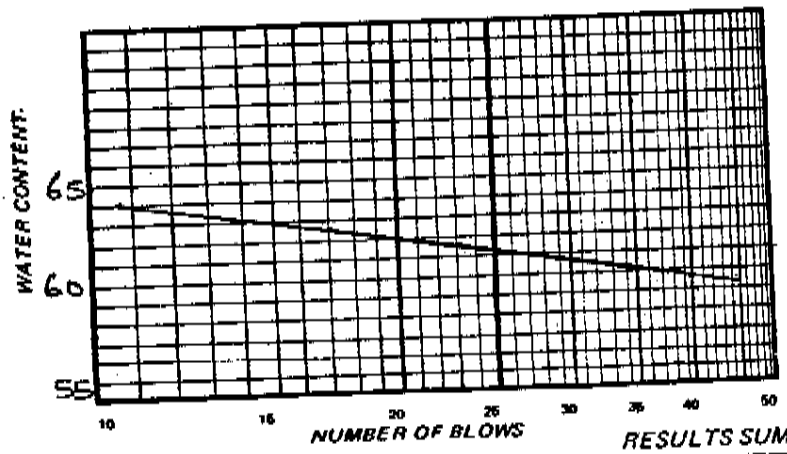
DETERMINATION NO.	1	2	3
CONTAINER NUMBER	5	40	
NUMBER OF BLOWS	xxx	xxx	
Wt. SAMPLE & TARE WET	50.98	50.91	
Wt. SAMPLE & TARE DRY	45.82	45.60	
Wt. OF WATER	5.16	5.31	
TARE	34.37	34.28	
Wt. OF DRY SOIL	11.45	11.32	
WATER CONTENT	45.07	46.91	45.99

NATURAL WATER CONTENT

1	2	3

LIQUID LIMIT

DETERMINATION NO.	1	2	3	4	5
NUMBER OF BLOWS	12	17	23	30	40
CONTAINER NUMBER	44	22	32	35	3
Wt. SAMPLE & TARE WET	50.46	51.57	52.53	53.95	55.76
Wt. SAMPLE & TARE DRY	43.18	43.84	44.56	45.63	46.72
Wt. OF WATER	7.28	7.73	7.97	8.32	8.98
TARE	31.74	31.50	31.63	31.91	31.66
Wt. OF DRY SOIL	11.44	12.34	12.93	13.72	15.06
WATER CONTENT	63.64	62.64	61.64	60.64	59.63



REMARKS The organic clay fraction of the soil is of high compressibility (OH)

RESULTS SUMMARY

natural water content	liquid limit	plastic limit	plasticity index	water-plasticity ratio,B	flow index	toughness index
	61.20	45.99	15.21			