

#56-F-208C

HWY #401

CROSSING OF

COUNTY ROAD

BRIDGE #3

M. M. DILLON
& COMPANY LIMITED

B.A. 510

M. M. DILLON, M.C., M.E.I.C., P.ENG.
G. E. HUMPHRIES, M.B.E., M.E.I.C., P.ENG.
R. A. CRYSLER, B.A.Sc., M.E.I.C., P.ENG.
W. K. CLAWSON, B.A.Sc., M.E.I.C., P.ENG.
I. D. PATTERSON, B.Sc., M.E.I.C., P.ENG.
G. M. BURNS, D.F.C., B.A.Sc., M.E.I.C., P.ENG.
R. M. DILLON, M.C., B.A., S.M., M.E.I.C., P.ENG.
D. M. BUNN, B.Sc., M.E.I.C., P.ENG.

LONDON

TORONTO

APR 20 1956

OUR FILE NO. 928-36-1
YOUR FILE NO.

April 17th, 1956.

Mr. A. M. Toye,
Bridge Design Engineer,
Department of Highways of Ontario,
Parliament Buildings,
Toronto 2, Ontario.

Dear Sir:

We are enclosing herewith two copies of the soil investigation report on an additional hole we had drilled at Oxford East Township Bridge #3. We are proceeding with the design of the foundations on the basis of this report and the previous report on this site as made by Franki Compressed Pile Company Limited in their report #PC458.

Yours very truly,

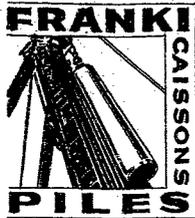
M. M. DILLON & COMPANY LIMITED.



R. A. Crysler, P. Eng.

RAC/HS
Encls.

B.A. 510



"Franki Piles carry more tons per Pile"

CABLEGRAMS:
"FRANKIPILE"

FRANKI
COMPRESSED PILE COMPANY
OF CANADA LIMITED

1835 YONGE STREET

TORONTO 7, ONT.
April 16, 1956.



TELEPHONE:

HUDSON 1-6426
Our Reference
QP 1756 PG 458a

SOIL INVESTIGATION REPORT

for

DEPARTMENT OF HIGHWAYS OF ONTARIO

(M.M. Dillon & Co., Consulting Engineer)

at

D.H.O. BRIDGE OXFORD # 3

As requested, we carried out an additional soil investigation at the proposed site of D.H.O. Bridge Oxford #3. This report is supplementary to our report PC 458.

REPORT OF INVESTIGATION

One boring was made to a depth of thirty feet, with the following results:

Log of Boring

Casing From To	Sampling from To	Sampler	Blows per Foot	Description	Sample No.
0 - 5	5½ - 6½	Split Spoon	38	Stiff Brown clay slightly stoney	# 1
5 - 10	10½ - 11½	Split Spoon	78	Stiff sandy brown clay	# 2
10 - 15	15½ - 16½	Split Spoon	29	Brown sandy clay	# 3
15 - 20	20½ - 21½	Split Spoon	21	Silt & fine gravel	# 4
20 - 25	25½ - 26½	Split Spoon	21	Silt & fine gravel	# 5
25 - 30	30½ - 31½	Split Spoon	12	Soft clay and fine gravel	# 6

Blow - 140# Hammer dropped free for 30". The blows per foot were not counted for the first 6" of sample.

DISCUSSION

Penetration tests and the Boring Log indicate a stratum of 6,000 psf bearing capacity from a depth of six to eleven feet. The Boring Log indicates material of 4,000 psf bearing capacity to a depth of thirty feet, and 2,000 psf below thirty feet.

CONCLUSION

Footings could be safely designed for a bearing capacity of 4,000 psf between elevations 995 and 1005.

The possibility of consolidation of the soft clay stratum at a depth of thirty feet is negligible provided that footings are kept above elevation 995.


D. J. Clough, P. Eng.



"Franki Piles carry more tons per Pile"

FRANKI
COMPRESSED PILE COMPANY
OF CANADA LIMITED

1835 YONGE STREET

TORONTO 7, ONT.
 April 16, 1956.

CABLEGRAMS:
 "FRANKIPILE"



TELEPHONE
 HUNSON 1-6426
 Our Reference
 OP 1756 PC 458a

SOIL INVESTIGATION REPORT
 for
DEPARTMENT OF HIGHWAYS OF ONTARIO
 (M.M. Millon & Co., Consulting Engineer)
 at
D.H.O. BRIDGE OXFORD # 3

As requested, we carried out an additional soil investigation at the proposed site of D.H.O. Bridge Oxford #3. This report is supplementary to our report PC 458.

REPORT OF INVESTIGATION

One boring was made to a depth of thirty feet, with the following results:

Log of Boring

Casing From To	Sampling from To	Sampler	Blows per Foot	Description	Sample No.
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Blow - 140# Hammer dropped free for 30". The blows per foot were not counted for the first 6" of sample.

DISCUSSION

Penetration tests and the Boring Log indicate a stratum of 6,000 psf bearing capacity from a depth of six to eleven feet. The Boring Log indicates material of 4,000 psf bearing capacity to a depth of thirty feet, and 2,000 psf below thirty feet.

CONCLUSION

Footings could be safely designed for a bearing capacity of 4,000 psf between elevations 995 and 1005.

The possibility of consolidation of the soft clay stratum at a depth of thirty feet is negligible provided that footings are kept above elevation 995.


D. J. Clough, P. Eng.

B-A-510



"Franki Piles carry more tons per Pile"

FRANKI COMPRESSED PILE COMPANY OF CANADA LIMITED

1835 YONGE STREET

TORONTO 7, ONT.

March 9, 1956.

CABLEGRAMS:
"FRANKIPILE"



TELEPHONE:
HUDSON 8-9009

Our Reference
PC 458

SOIL INVESTIGATION REPORT
for
DEPARTMENT OF HIGHWAYS OF ONTARIO
(Consulting Engineers, M.M. Dillon & Co.)
at
D.H.C. Bridge OXFORD # 3

As requested, we carried out a preliminary soil investigation at the proposed Overpass site at the crossing of County Road and Highway 401 known as Oxford Bridge # 3.

REPORT OF INVESTIGATION

Four cone penetration tests were made at the location shown on the location sketch. The results are shown on the accompanying diagrams and are summarized as follows:

S U M M A R Y

Hole No.	Ground Surface Elevation	Water Level	2,000	4,000	Refusal
1	1011.3	Surface water	1007	1005	1002.6
2	1011.3	Dry	1008	1007	1004.4
3	1010.4	Dry	1006	1004	999.5
4	1010.6	Dry	1006	1004	1001.0

DISCUSSION

An examination of the above summary indicates that adequate bearing material is found right near the surface.

Mar. 9, 1956.

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PG 458

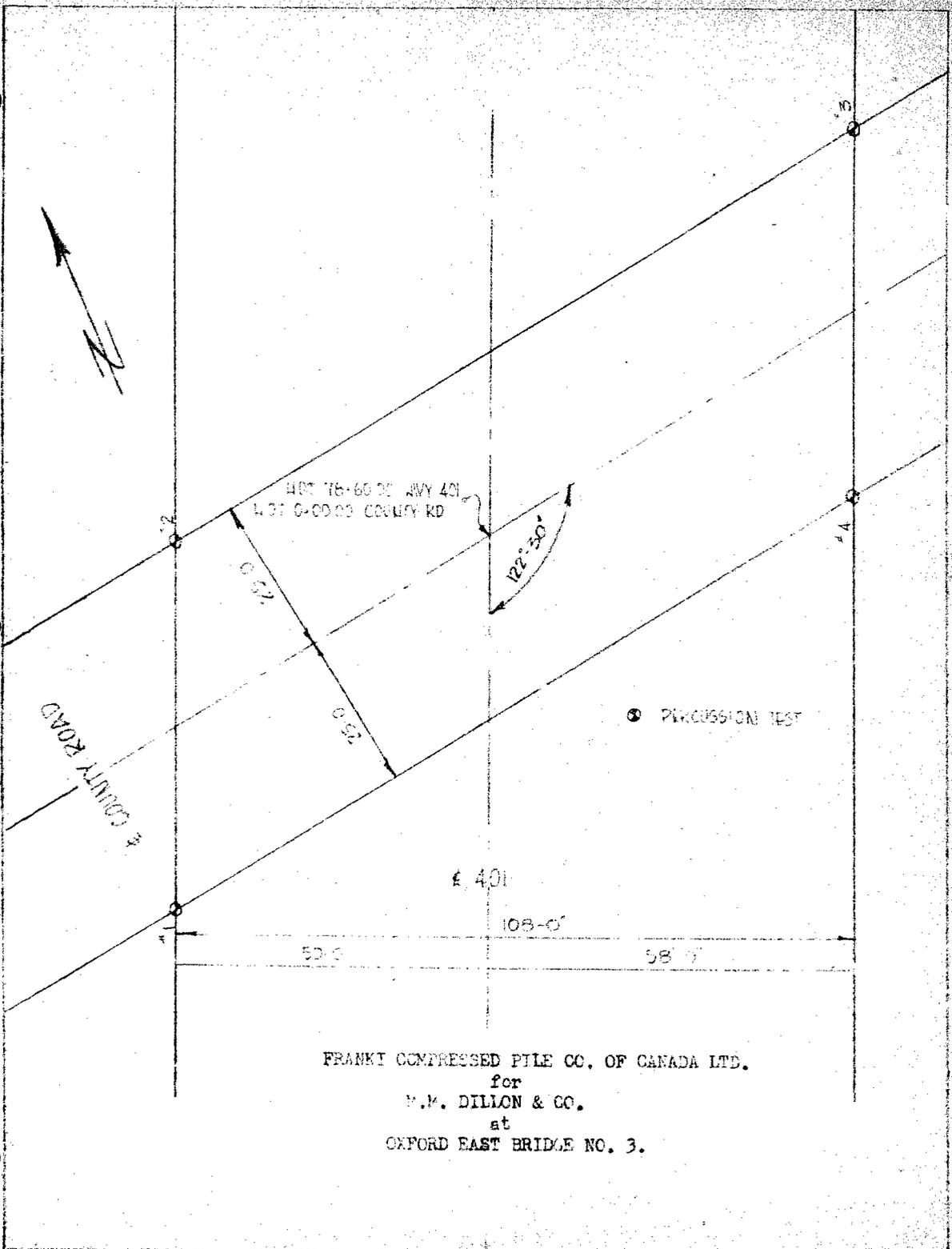
Observations taken at the time of the field work indicate that the soil is sandy for the first few feet and is then gravel.

It will be noted that refusals were obtained at quite shallow depths. If the footings are to be much below elevation 1005 it is recommended that at least one deep boring be made on this site.



W. H. T. Wilson, P. Eng.

LOCATION SKETCH



LOT 16-60 OF DIVY 401
 LOT 6-00-00 COUNTY RD

⊙ PERCUSSION TEST

£ 401

FRANKI COMPRESSED PILE CO. OF CANADA LTD.
 for
 W.M. DILLON & CO.
 at
 OXFORD EAST BRIDGE NO. 3.

FRANKI
 COMPRESSED PILE COMPANY
 OF CANADA LIMITED

PERCUSSION TEST DIAGRAM

FOR: M. M. DILLON & COMPANY

AT: CXPCHD EAST No. 3

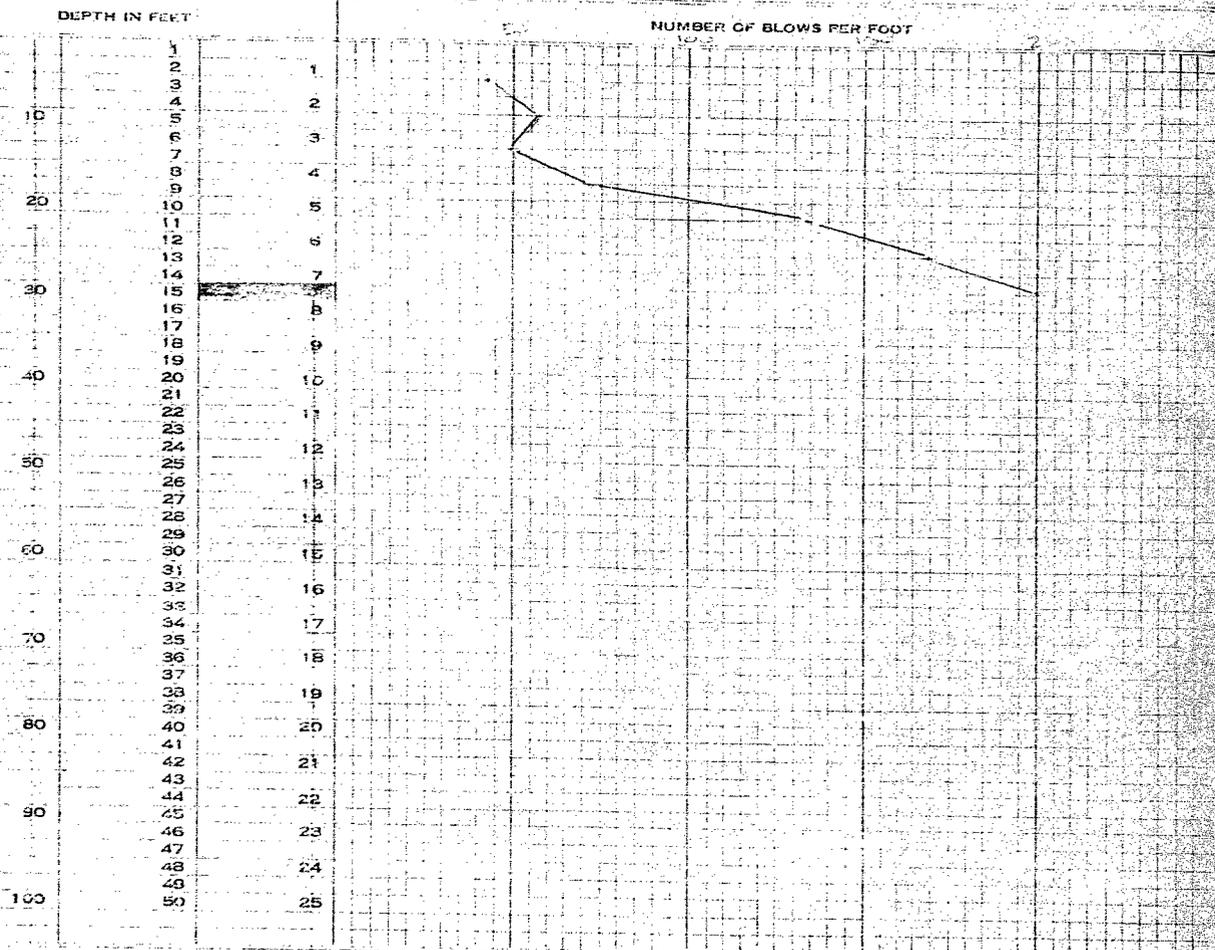
JOB NO. PC 458

DATE: March 6, 1956.

TEST NO.: 2

WEIGHT OF HAMMER 225#

DROP, 3 FT.



Ground Surface Elevation 1011.3
 Refusal Elevation 1004.4
 No. of Blows 200 for 11"

FRANKI

COMPRESSED PILE COMPANY
OF CANADA LIMITED

PERCUSSION TEST DIAGRAM

FOR: M. M. LILLON & COMPANY

AT: OXFORD EAST WC. 3

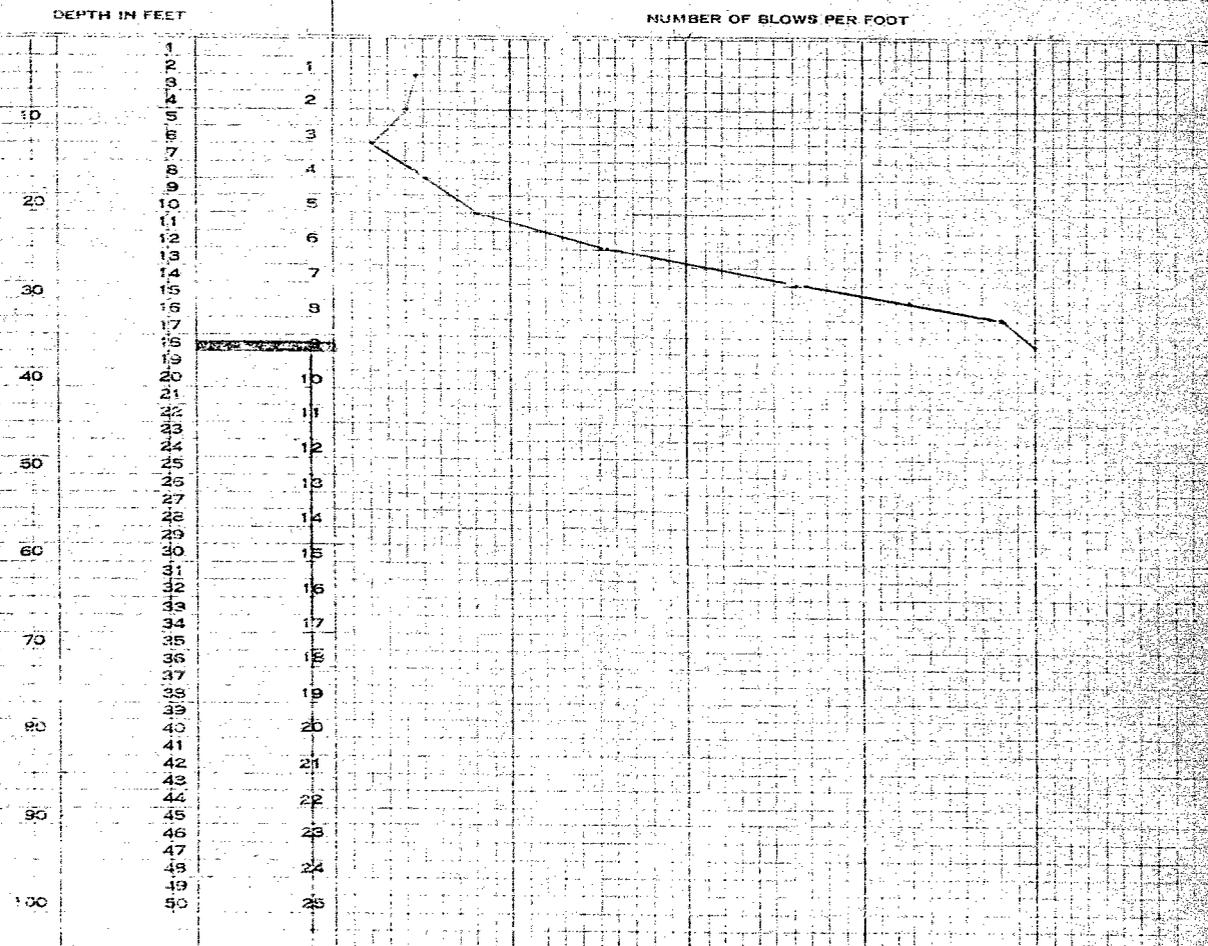
JOB NO. PC 458

DATE: March 5, 56,

TEST NO.: 1

WEIGHT OF HAMMER 225*

DROP 3 FT.



Ground Surface Elevation 1011.3
Refusal Elevation 1007.6
No. of Blows 200 for 8"

DEFECTS IN NEGATIVE DUE TO
CONDITION OF ORIGINAL DOCUMENT

SIGNED

FRANKI

COMPRESSED PILE COMPANY
OF CANADA LIMITED

PERCUSSION TEST DIAGRAM

FOR: M. H. DILLON & COMPANY

AT: CYPRESS POINT NO. 3

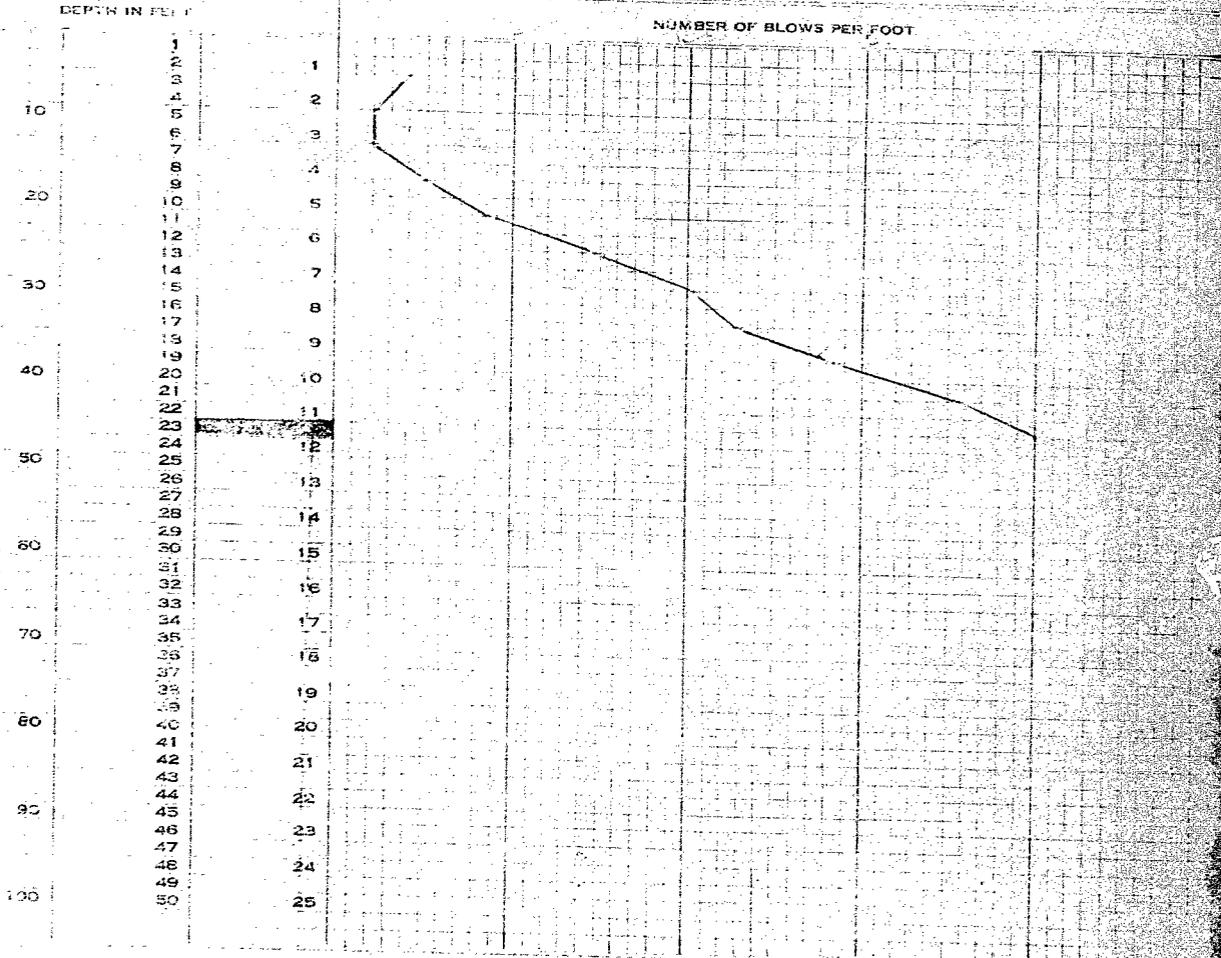
JOB NO. 20-15

DATE: March 17, 1950

TEST NO.: 3

WEIGHT OF HAMMER 3254

DROP 3 FT.



Ground Surface Elevation 101.17
Reflected Elevation 87.5
No. of Blows 200 for 10'

DEFECTS IN NEGATIVE DUE TO
CONDITION OF ORIGINAL DOCUMENT

SIGNED

FRANKI

COMPRESSED PILE COMPANY
OF CANADA LIMITED

PERCUSSION TEST DIAGRAM

FOR: M.M. LILLON & COMPANY

AT: OXFORD BLT No. 3

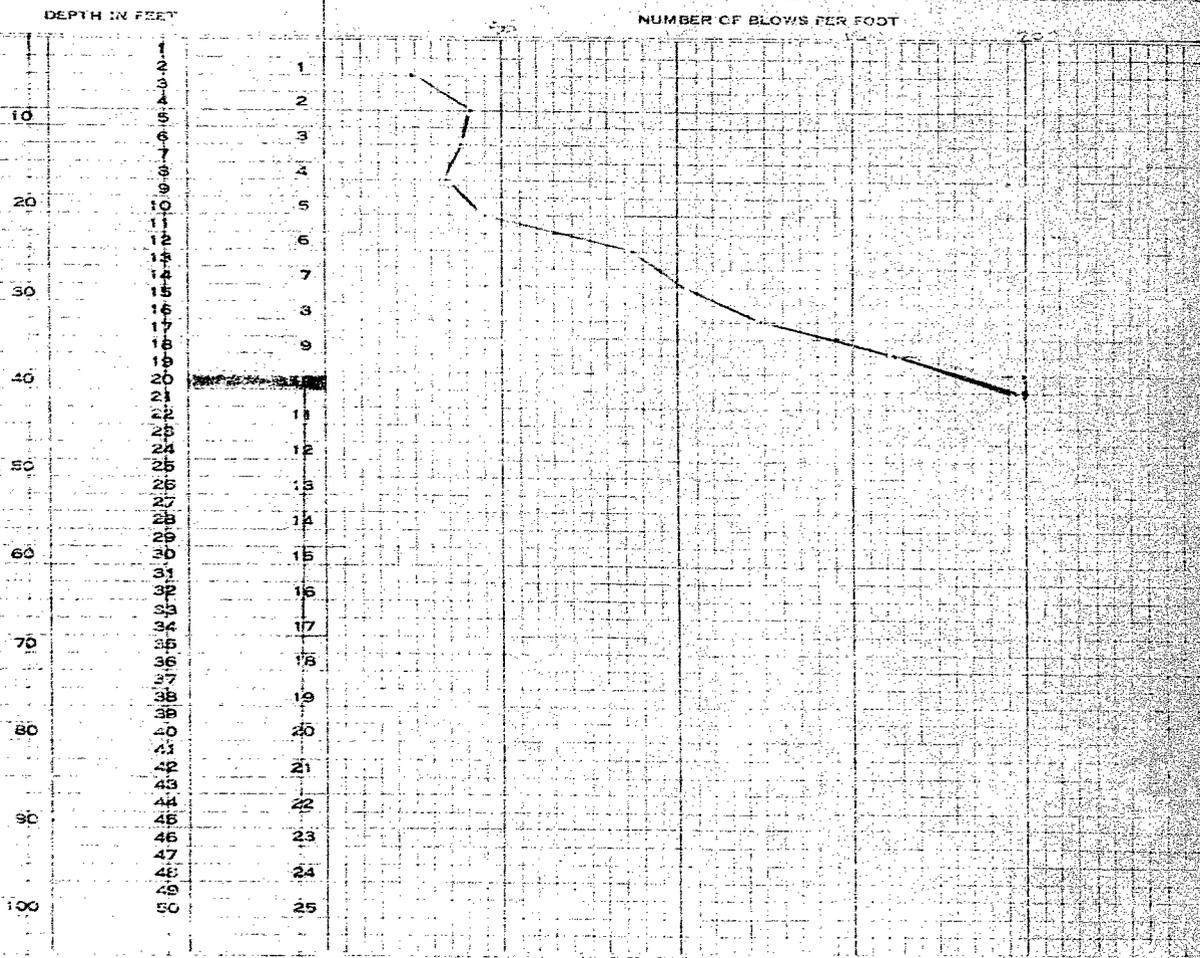
JOB NO. PC 458

DATE: March 6, 1956.

TEST NO.: 4

WEIGHT OF HAMMER 225 LBS

DROP 3 FT.



Ground Surface Elevation 101.0
Refusal Elevation 100.1
No. of Blows 200 for 7'

DEFECTS IN NEGATIVE DUE TO
CONDITION OF ORIGINAL DOCUMENT

SIGNED