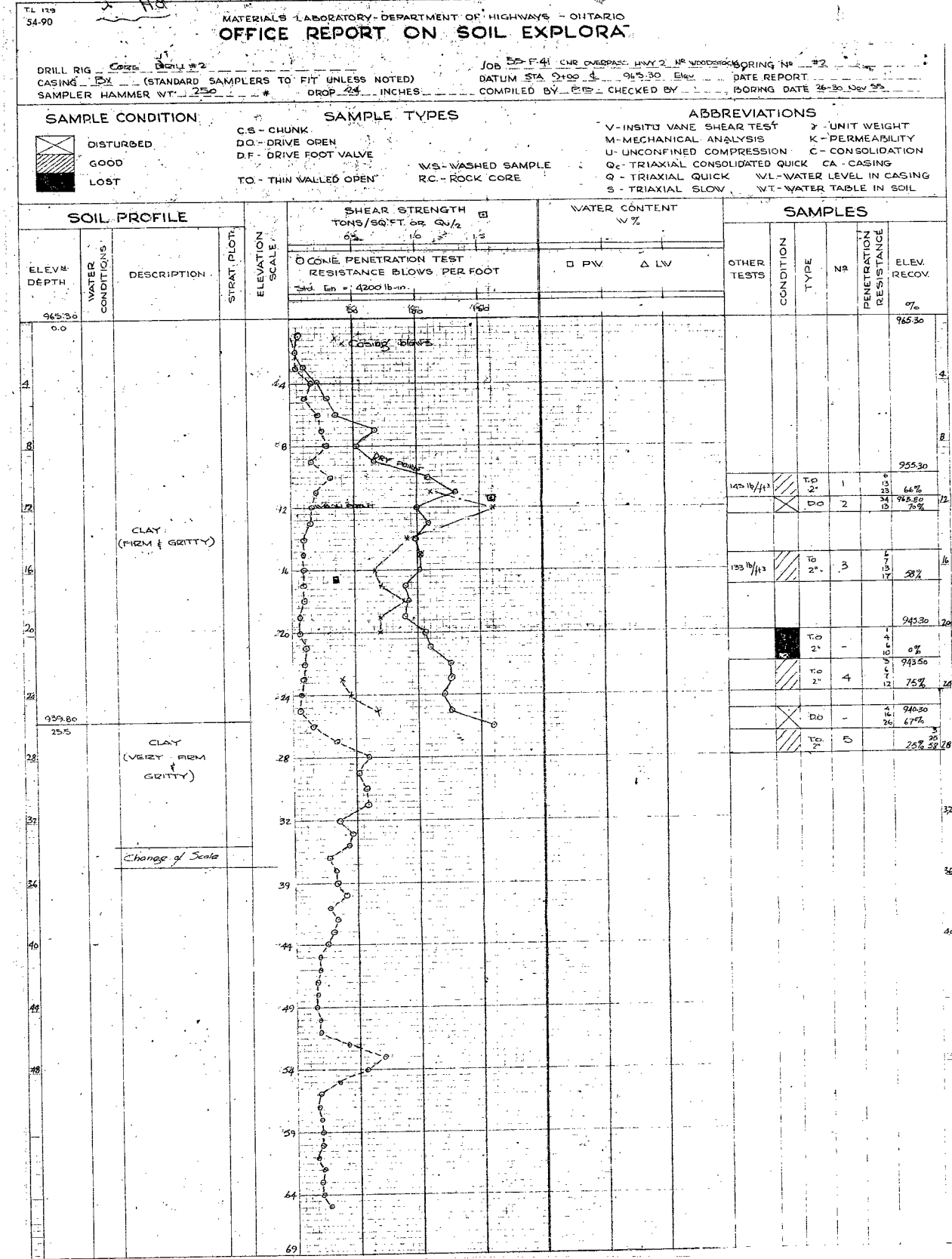
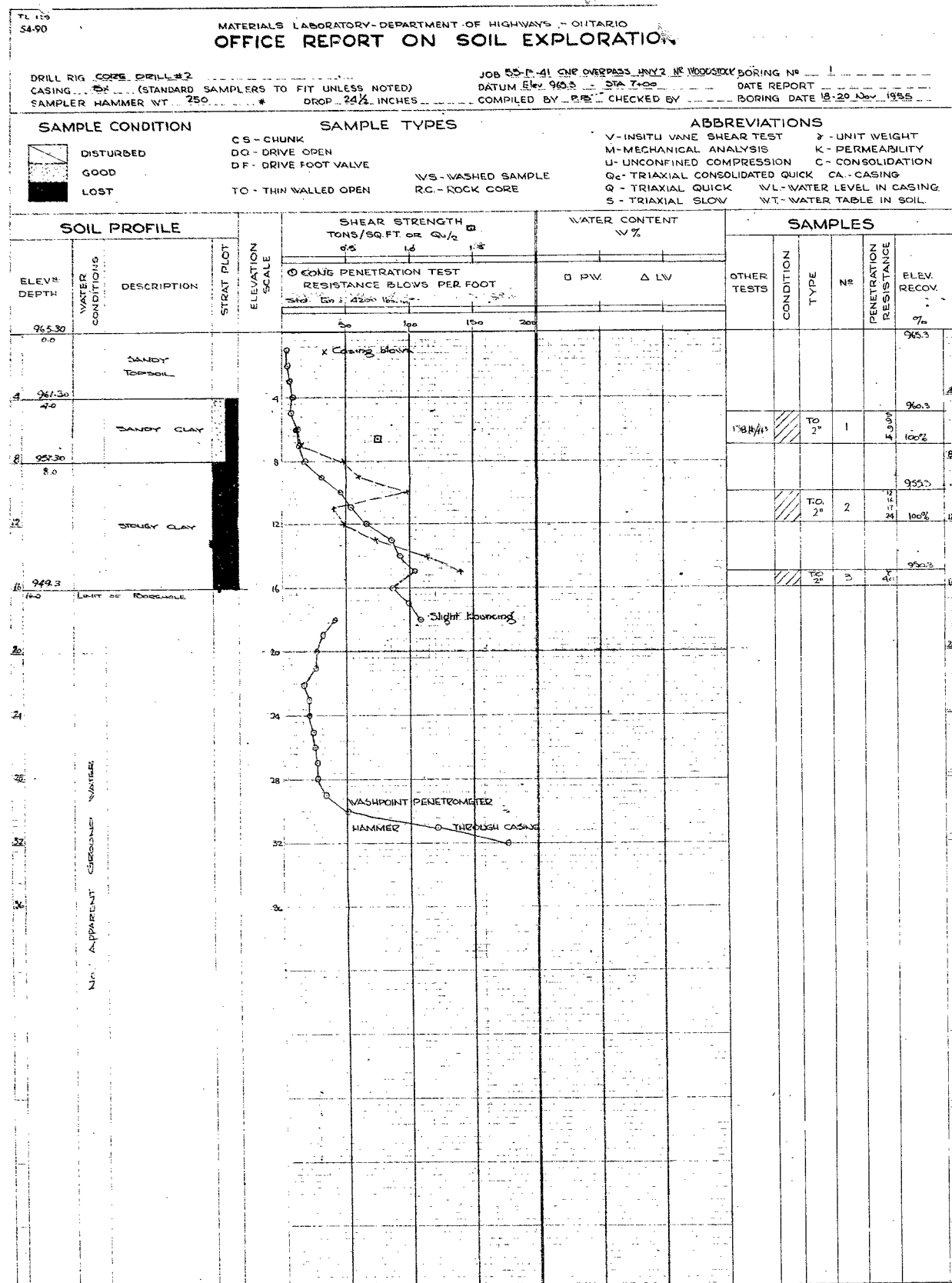


#55-F-41
Hwy. #2
C.N.R. OVERPASS
WOODSTOCK





MATERIALS LABORATORY - DEPARTMENT OF HIGHWAYS - ONTARIO
OFFICE REPORT ON SOIL EXPLORATION

DRILL RIG CORE- DRILL #?
CASING H₂O EX (STANDARD SAMPLERS TO FIT UNLESS NOTED)
SAMPLER HAMMER WT 250 # DROP 24 INCHES

JOB NO. F-41 CNR OVERPASS NE WOODSTOCK BORING NO. 6
 DATUM 9/1/08 STA. 12+35 - 30' RT. DATE REPORT
 COMPILED BY P.P. CHECKED BY BORING DATE DEC. 8-9/08

SAMPLE CONDITION

☐ DISTURBED
☐ GOOD
☐ LOST

SAMPLE TYPES

CS - CHUNK
DO - DRIVE OPEN
DF - DRIVE FOOT VALVE
TO - THIN WALLED OPEN

WS - WASHED SAMPLE
RC - ROCK CORE

ABBREVIATIONS

V-INSITU VANE SHEAR TEST γ - UNIT WEIGHT
M-MECHANICAL ANALYSIS K - PERMEABILITY
U-UNCONFINED COMPRESSION C - CONSOLIDATION
Q_c- TRIAXIAL CONSOLIDATED QUICK CA - CASING
Q - TRIAXIAL QUICK WL-WATER LEVEL IN CASING
S - TRIAXIAL SLOW WT- WATER TABLE IN SOIL

SOIL PROFILE

ELEV. DEPTH	WATER CONDITIONS	DESCRIPTION	STRAT PLOT	ELEVATION SCALE	CONE PENETRATION TEST WASHPOINT RESISTANCE BLOWS PER FOOT <i>Std. Con. 4200 lbs./sq.</i>	D.P.W.	Δ LV	OTHER TESTS	CONDITION	TYPE	Nº	PENETRATION RESISTANCE	ELEV. RECOV.
<i>961.58</i> 0.00					50 100 150							% 961.58	
<i>959.58</i> 2.00		FIRM CLAY		4 8 12 16 20 24 28 32 36 40						T.O. B'	1	76 23 26 71%	958.58
										T.O. 5"			949.58
										TOO STIFF FOR SAMPLING			
		FIRM CLAY								T.O. 2'	-	3 9 16 0%	941.58
										MATERIAL RECOVERED IN SPLIT SPONG SAMPLE #2			

MATERIALS LABORATORY-DEPARTMENT OF HIGHWAYS - ONTARIO
OFFICE REPORT ON SOIL EXPLORATION

DRILL RIG CORE DRILL #2
CASING EX (STANDARD SAMPLERS TO FIT UNLESS NOTED)
SAMPLER HAMMER WT. 220 # DROP 24 INCHES

JOB 55-F-41 CNE OVERPASS NR WOODSTOCK BORING NO. 8
 DATUM 962.08 STA 14+46.1/RT DATE REPORT _____
 COMPILED BY P.B. CHECKED BY _____ BORING DATE DEC 12/85

SAMPLE CONDITION



DISTURBED

GOOD

LOST

SAMPLE TYPES

C.S - CHUCK
D.O - DRIVE OPEN
D.F - DRIVE FOOT VALVE
T.O - THIN WALLED OPEN

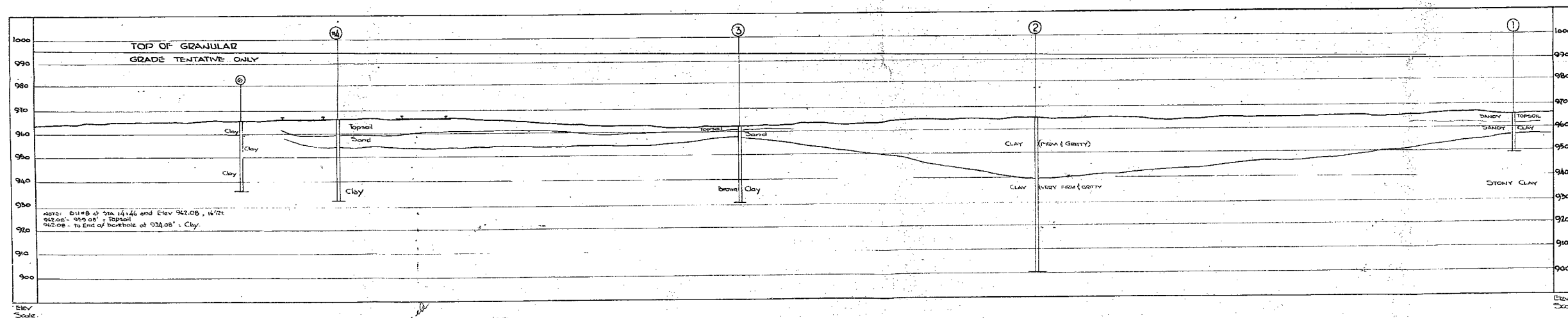
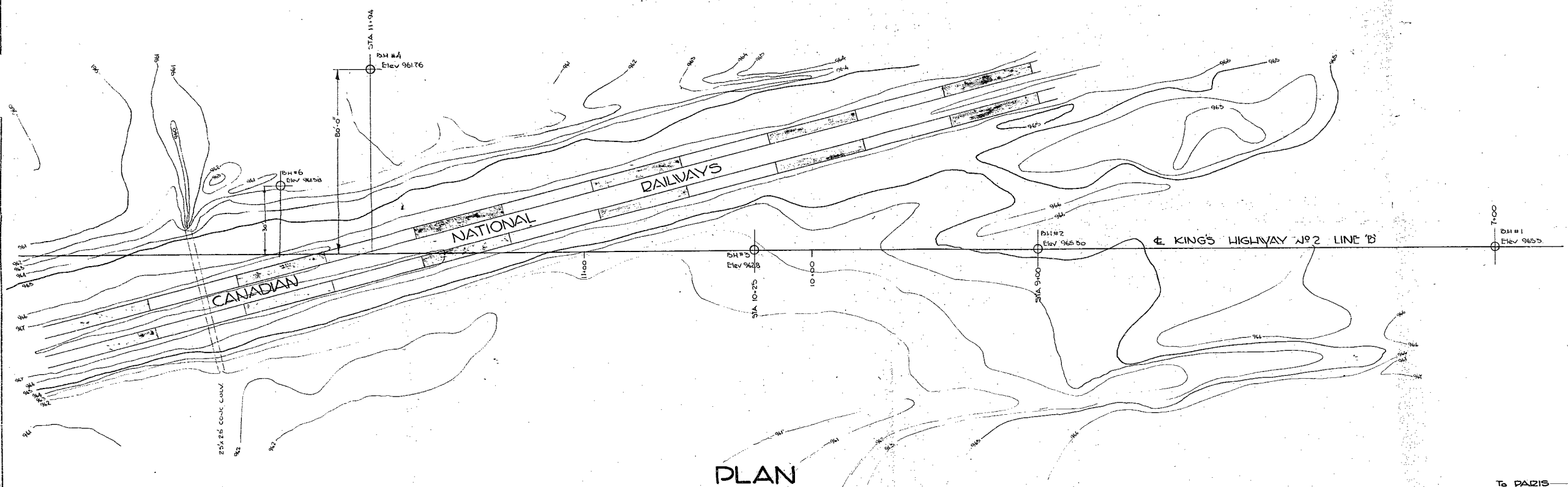
W.S. - WASHED SAMPLE
R.C. - ROCK CORE

ABBREVIATIONS

V-INSITU VANE SHEAR TEST	γ - UNIT WEIGHT
M-MECHANICAL ANALYSIS	K - PERMEABILITY
U-UNCONFINED COMPRESSION	C - CONSOLIDATION
Q _c - TRIAXIAL CONSOLIDATED QUICK	CA - CASING
Q - TRIAXIAL QUICK	WL - WATER LEVEL IN CASING
S - TRIAXIAL SLOW	WT - WATER TABLE IN SOIL

SOIL PROFILE

[illegible]



972.5 to Fortville

558

57-39

DEPARTMENT OF HIGHWAYS-ONTARIO			
BRIDGE OFFICE-TORONTO			
PLAN & PROFILE OF BOREHOLES AT PROPOSED CROSSING OF HWY No. 2 & THE C.N.R.			
THE KING'S HIGHWAY No. 2		DIV. No. 2	
CO. OXFORD			
TWP. BLANDFORD	LOT 1	CON. 2	
APPROVED			
BRIDGE ENGINEER		CHIEF ENGINEER	
DESIGN	CHECK	CONTRACT	
DRAWING	CHECK	NUMBERS	
TRACING	ADAM	LOADING	
DATE	JAN 25 1956	DRAWING	55-F-41 A

Highways Laboratory,
s/o Room 1012,
Parliament Buildings,
Toronto, Ontario.

January 23, 1954.

Mr. E. Eby,
Bridge Engineer.

Dear Sir: Re: Foundation Investigation, Hwy. 24 and O.H.W. at Oresterville.
 Plan N 2328-1, 2-2-53, Profile E 1110, Grades 25-2-53.

We are forwarding herewith two copies of the report on the above,
which is self-explanatory.

Yours truly,

F. C. Brownridge,
Materials & Research Engineer.

Fcm

M. M. A.
(M. M. A.)

cc/fc

Copies to:

Mr. E. Eby, Bridge Engineer (2)
Mr. A. Freestone, Const. Engineer (1)
Mr. J. Colver, Design Engineer (1)
Mr. E. Green, Dist. Engineer, London (1)
Mr. A. Macintosh (1)
File (1)

A REPORT
ON THE SOIL CONDITIONS
FOR THE PROPOSED C.N.R.
OVERPASS NEAR WOODSTOCK STATION 11/46
RYN. NO. 2 LINE "B".
PROJECT P-58-41

*Note: Road and bridge were built
along line "C". Inform. St. Helmbich
July 18, 1962. Alstern*

Copies to:

Mr. A. Tope, Bridge Engineer, (8)
Mr. H. Tregaskes, Const. Engineer (1)
Mr. J. Walter, Design Engineer (1)
Mr. R. Fraser, Dist. Engineer, London (1)
Mr. G. Parantatos (1)
File (1)

PLAN E3055-1
PLAN 3-2-89
Prof. 01110

INTRODUCTION:

The following report is concerned with a soils investigation for a proposed C.N.R. overpass on Highway 2, to be constructed at Creditville approximately 7 miles east of Woodstock where a level crossing is to be eliminated.

The proposal calls for a skew bridge of approximately 150 feet span and approach banks up to 35 feet in height: accordingly the exploration was made to examine the foundation conditions for the bridge and the stability of the approach fills.

SITE CONDITIONS:

The site is located in an area of low relief, forming part of the glacial outwash plains of south western Ontario. Wells in the vicinity tap water at approximately 75 feet depth in a layer of gravel and bedrock occurs at approximately 100 feet.

PROCEDURE:

The site work was carried out between 19 Nov. and Dec. 12, 1955 and comprised of seven penetration and boreholes and one auger hole. Due to the high skin friction of the clay, the dynamic penetration met great resistance. This was overcome by pumping water through the penetration rods which issued from jets above the cone point; the water in returning to the surface lubricated the clay and relieved the friction. All the soils information obtained is shown in appendix I under logs of each hole together with the relevant levels and locations etc.

SOILS CONDITION:

Beneath the topsoil a shallow bed of loose sand covers the parent material which is a stiff glacial clay, noticeably gritty and in places very stoney, as shown by the number of ^{or} dist~~orted~~ shelly tubes recovered. Some softer spots occur spasmodically as shown from the penetration records.

WATER CONDITIONS:

There was no evidence of ground water within depth explored.

ANALYSIS OF RESULTS AND RECOMMENDATIONS:

Unfortunately the nature of the major soil type makes the consistency of sampling and testing almost impossible consequently there is considerable scattering in the results of unconfined strength - from 7000 lb/sq. ft. to 1400 lb/sq. ft.

However it is fairly clear that the soil is of the stiff glacial type which is known to be capable of accommodating a stress of 2 tons/sq. ft.

The approach fills were investigated for stability and in no case was the required strength of the fill base material greater than the least value for the unconfined strength as tested.

RECOMMENDATIONS:

A rigid framed structure can be constructed at this location provided a bearing stress of 4000 lb/sq. ft. is not exceeded.

The allowable bearing pressure can be increased if a simply supported structure is constructed.

Approach fills can be constructed to the normal cross section without apparent danger of failure.

G. H. Farantatos,
Foundation Engineer.