

Memorandum

UTAH DEPARTMENT OF TRANSPORTATION

DATE: June 24, 1980

TO : Those Listed Below
Heber Cam for E. E. L.

FROM : Edwin E. Lovelace, Engineer of Materials and Research

*T155 RIW
 Sec 19K*

SUBJECT: I-15-5(2)195 - Sevier River to Mills Junction

I-15 over U.P.R.R. at I-15 ℄ Station 1693+19.80

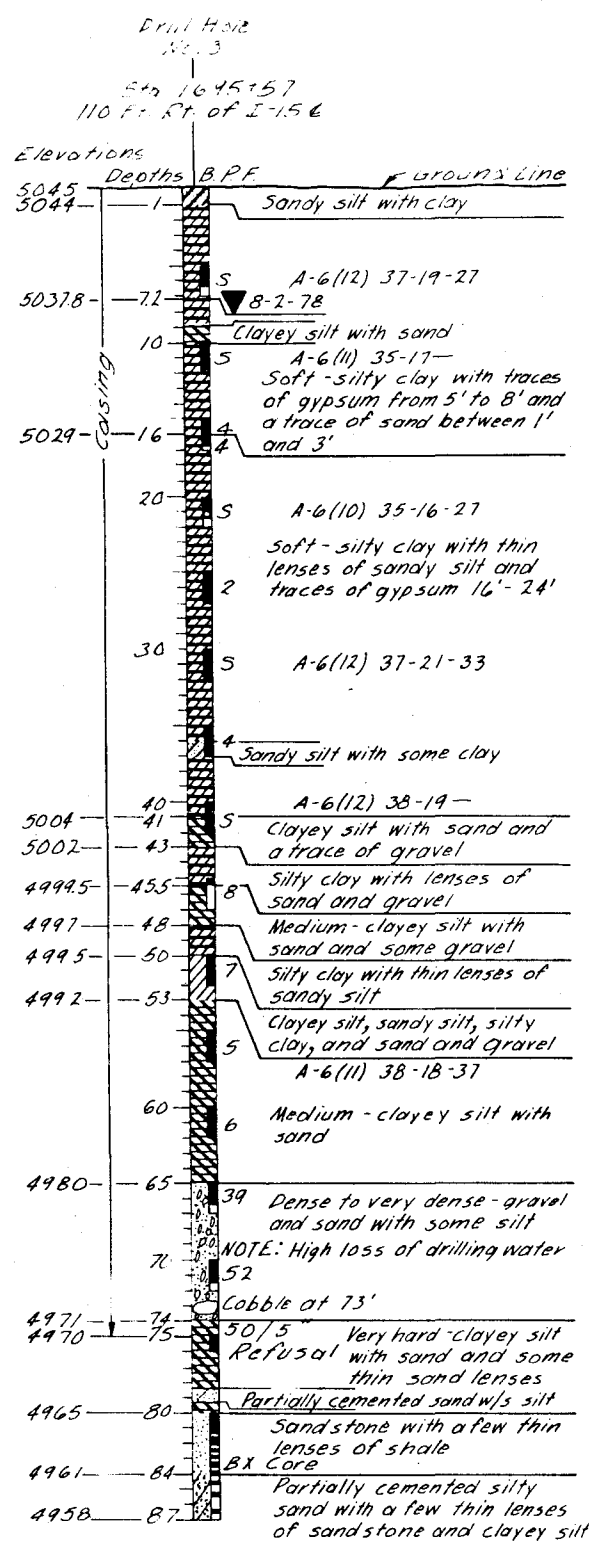
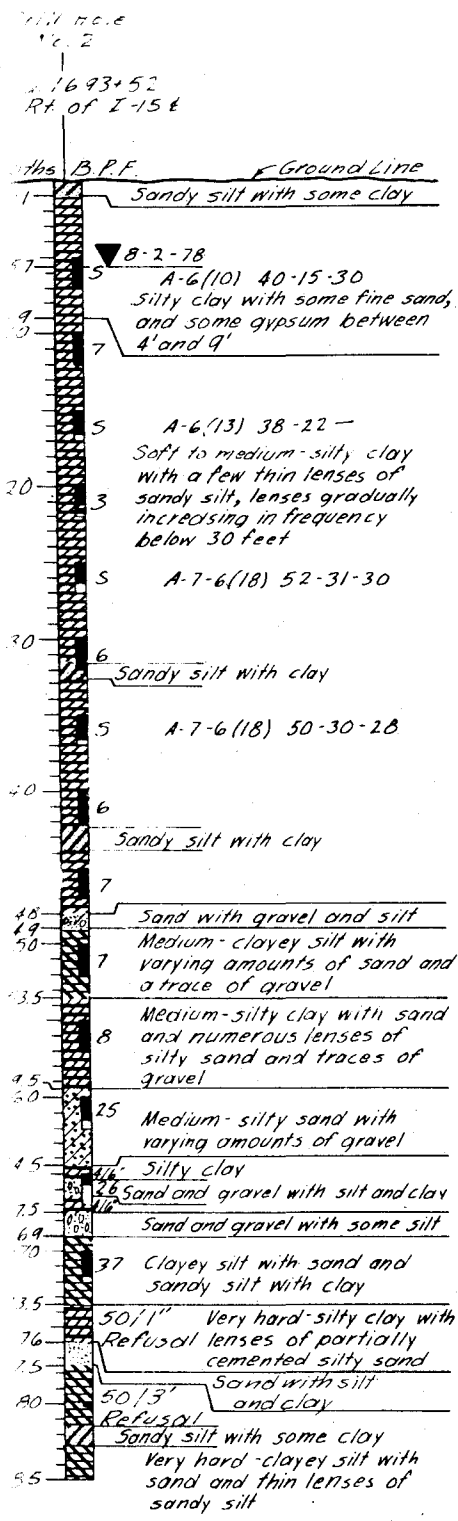
SITE CONDITIONS

Two three-span prestressed concrete beam structures are proposed to carry I-15 over the Union Pacific Railroad tracks at I-15 ℄ Station 1693+19.80. Both structures are about 214 feet long and the S.B.L. structure is 44 feet wide while the N.B.L. structure varies in width and is approximately 66 feet wide. I-15 will cross the railroad tracks at a skew angle of nearly 38 degrees and the approach embankments will vary from 31 to 35 feet high.

Drainage in the area is good.

SUBSURFACE EXPLORATION

Four test holes were drilled to depths ranging from 66 to 87 feet deep. Unconsolidated lacustrine sediments were encountered in the upper 60 or so feet of each hole and are underlaid by older lacustrine and alluvial sediments which are partially consolidated. In general these sediments may be described as follows: from the ground surface to a depth of 1 foot--sandy silt; from 1 foot to 51 feet--soft to medium silty clay with a few lenses of sandy silt and clayey silt; from 51 feet to 62 feet--medium clayey silt with silty clay and some sand and

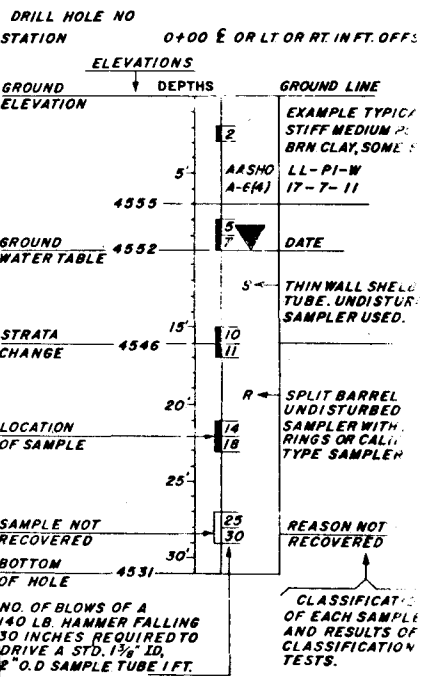


KEY TO DRILLING LOG

RELATIVE DENSITY (NON-PLASTIC SANDS)
 VERY LOOSE - LESS THAN 4 BLOWS PER FOOT
 LOOSE - 4 TO 10 BLOWS PER FOOT
 MEDIUM - 10 TO 30 BLOWS PER FOOT
 DENSE - 30 TO 50 BLOWS PER FOOT
 VERY DENSE - MORE THAN 50 BLOWS PER FOOT

CONSISTENCY (PLASTIC SILT & CLAY)
 VERY SOFT - LESS THAN 2 BLOWS PER FOOT
 SOFT - 2 TO 4 BLOWS PER FOOT
 MEDIUM - 4 TO 8 BLOWS PER FOOT
 STIFF - 8 TO 15 BLOWS PER FOOT
 VERY STIFF - 15 TO 30 BLOWS PER FOOT
 HARD - MORE THAN 30 BLOWS PER FOOT

- | | | |
|-----------------|--------------|-------------|
| TOPSOIL OR FILL | IGNEOUS | SAND (CLAY) |
| GRAVEL | LIMESTONE | CLAY SAND |
| SAND | CONGLOMERATE | SILT (CLAY) |
| SILT | DOLOMITE | CLAY SILT |
| CLAY | | SILT SAND |
| SHALE | | SAND SILT |



ABBREVIATIONS
 L.L. - LIQUID LIMIT IN %
 P.I. - PLASTIC INDEX
 W. - NATURAL MOISTURE CONTENT
 W.G. - WELL GRADED
 PEN. - PENETRATION
 G.W.T. - GROUND WATER TABLE
 B.P.F. - BLOWS PER FOOT.
 N.P. - NON PLASTIC

Note: Refusal = 50 or more blows per 6"

DATE DRILLED:
 Drill Hole No. 1 6-7-78
 " " " 2 6-9-78
 " " " 3 7-11-78
 " " " 4 7-18-78

NO.	BY	DATE	REVISIONS	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION
 SALT LAKE CITY, UTAH
 MATERIALS AND RESEARCH SECTION
 SEVIER RIVER TO MILLS JUNCTION
 I-15 OVER UPRR

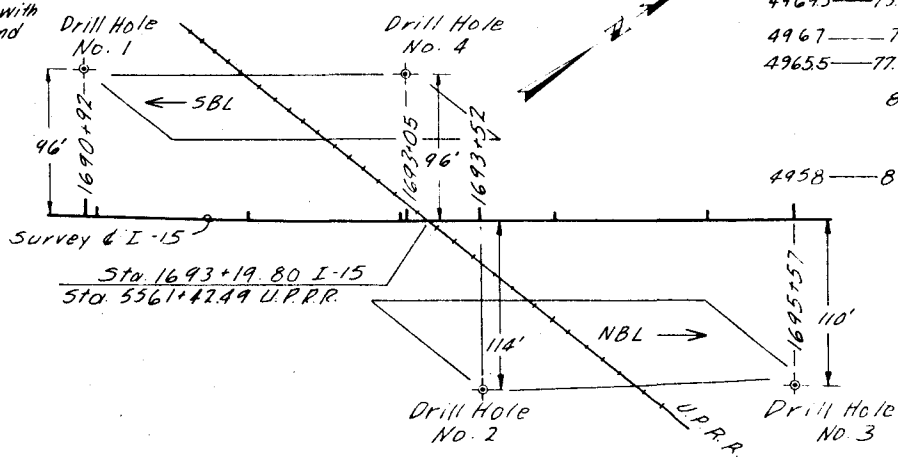
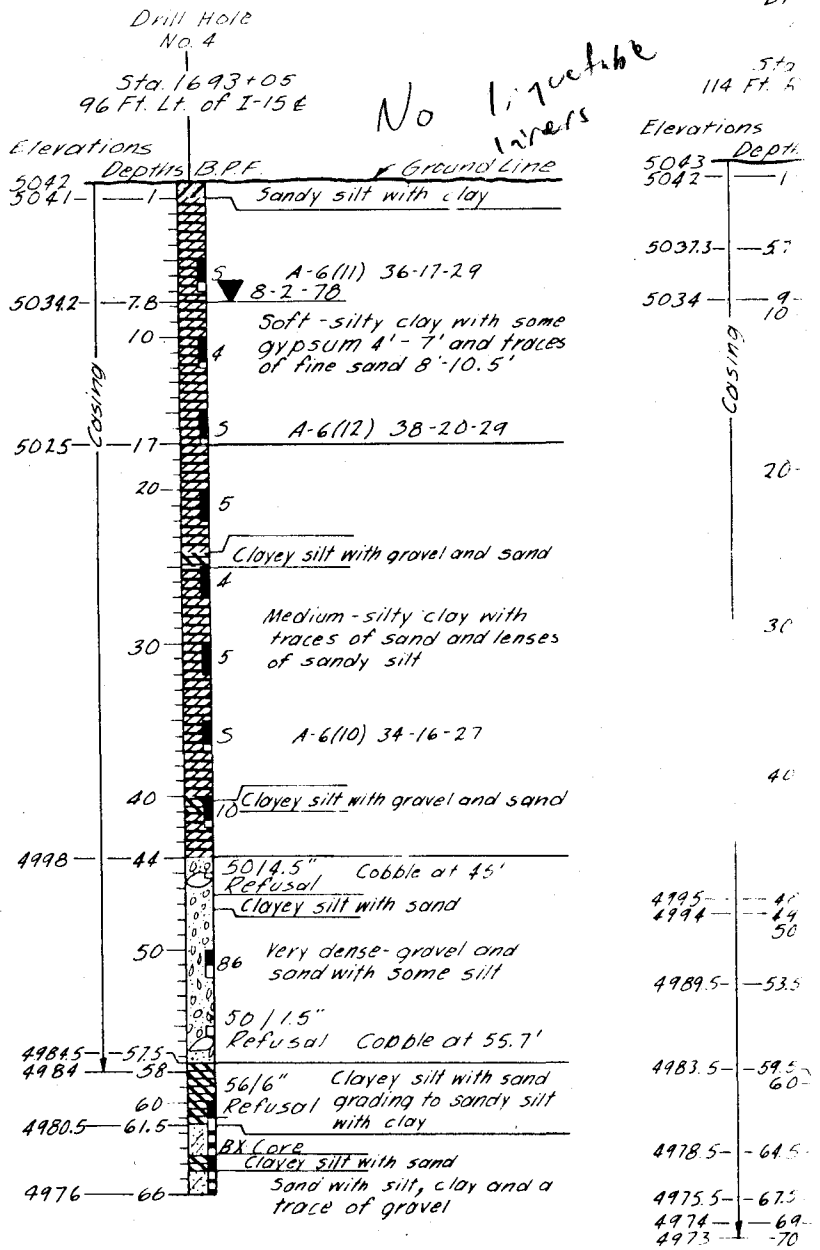
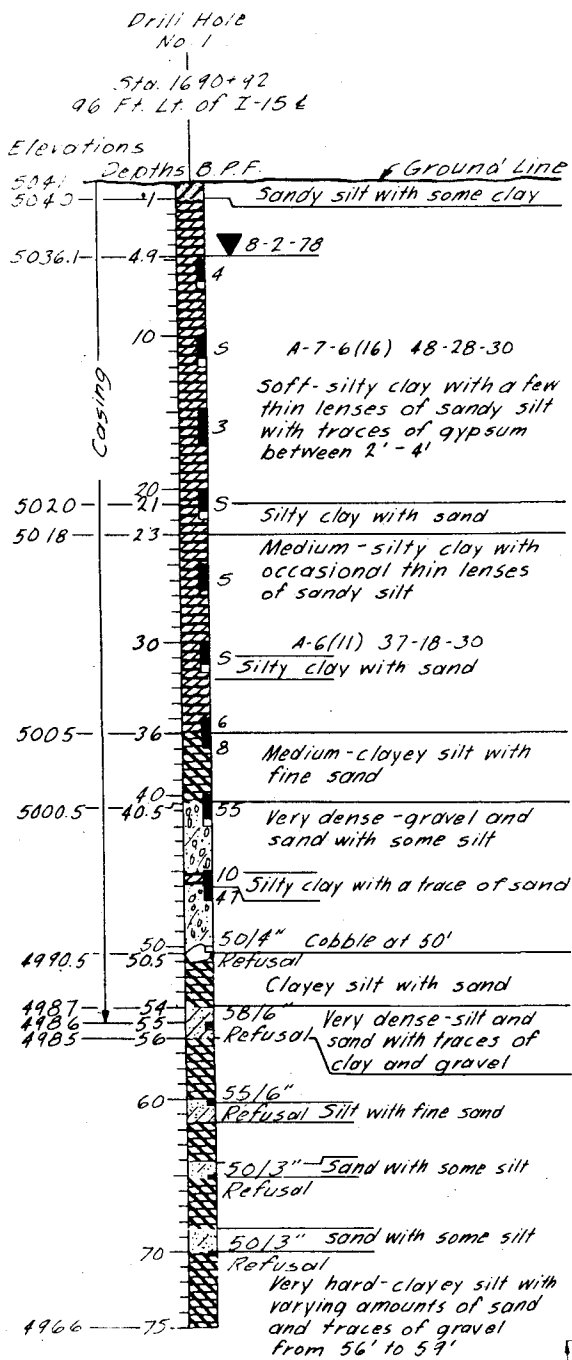
DRAWN BY Kistler
 CHECKED BY P. Stenice
 APPROVAL RECOMMENDED BY Loren H. Rauscher

CHECKED BY Boyd L. Searle
 CHECKED BY SI SAKHRI
 CHECKED BY K. Powell

PROJECT NO. 1-15-57
 1693+19.80
 STATION
 COUNTY

RECEIVED DATE

Fig 1



NOTE: Small crystals and nodules of gypsum and possibly other soluble salts were encountered at the following depths:
 Drill Hole No. 1: 2'-4'
 " " No. 2: 4'-9'
 " " No. 3: 5'-8'
 " " No. 4: 4.5'-10.5'