ENGINEERING
FILE COPY

Roland B. Phillips, Head, Materials Testing Section
SCS, Fort Worth, Texas

June 12, 1967

Harry W. Arman, Head, State Design Section
SCS, Fort Worth, Texas

WS - PL-566 - Plum Creek - Site 2

Attached is Geological Report with Logs of Borings for Plum Creek Site 2.

Attachments

cc: P. M. Price, SCS, Temple
Robert H. Gammon, SCS, Alice
J. G. Hill, Jr., SCS, Corsicana
Harold J. Behrens, SCS, Fort Worth
James C. Evans, SCS, Waco

10-59

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

GENERAL

State Texas County ________ ; ____ ¼, ____ ¼, Sec. ____, T ____ R ____ ; Watershed Plum Creek

Subwatershed ________ Fund class (WP-08) 2029 (FP-2, WP-1, etc.) Site number 2 Site group I Structure class A

Investigated by [illegible] C. [illegible] (signature and title) Robert [illegible] P.C.E. Equipment used Failing RD, Texas P.A. (Type, size, make, model, etc.) Date 5-31-67

SITE DATA

Drainage area size 2.81 sq. mi., 1798 acres. Type of structure Compacted Earth Purpose Floodwater Retention

Direction of valley trend (downstream) North East Maximum height of fill 37.3 feet. Length of fill 2600 feet

Estimated volume of compacted fill required 147,400 yards

STORAGE ALLOCATION

		Volume (ac. ft.)	Surface Area (acres)	Depth at Dam (feet)
Total	Sediment	199	43	24
	Floodwater	764	120	37.5

SURFACE GEOLOGY AND PHYSIOGRAPHY

Physiographic description Black Prairie Topography Gently Rolling Attitude of beds: Dip sl. SE Strike NE-SW

Steepness of abutments: Left 2-12 percent; Right 1-3 percent. Width of floodplain at centerline of dam 445' feet

General geology of site: This site is located on the Taylor Group of Cretaceous age. The soils associated with this group are of silty slightly gravelly stiff clays & slightly silty to silty very stiff clays overlying the bedrock of hard gray to blue shale. No water table was encountered during the investigation however, water was standing in the stream channel.

JUN 2 1967

Form SCS-376B
Sheet ___ of ___

USDA-SCS

10-59

DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

FEATURE Centerline of Dam

(Centerline of Dam, Principal Spillway, Emergency Spillway, the Stream Channel, Investigations for Drainage of Structure, Borrow Area, Reservoir Basin, etc.)

DRILLING PROGRAM

Equipment Used	Number of Holes		Number of Samples Taken		
	Exploration	Sampling	Undisturbed (state type)	Disturbed Large	Disturbed Small
RD	7	—	—	—	—
PA	5	—	—	—	—
Total	12	—	—	—	—

SUMMARY OF FINDINGS

(include only factual data)

In the floodplain area, alluvial soil to an average depth of 7 feet overlies residual CH. The alluvial materials are silty stiff clays (CH) and slightly gravelly to gravelly slightly calcareous stiff CL, CH. To ft different individual sand and gravel lenses are thicker and extend downward 9 to 11 feet. On the right abutment the alluvials thin in the higher elevations and overlie the shaly CH. The bedrock 1-2 shale has been weathered on the surface to what is known as shaly CH.

10-59

USDA-SC

DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

FEATURE Principal Spillway

(Centerline of Dam, Principal Spillway, Emergency Spillway, the Stream Channel, Investigations for Drainage of Structure, Borrow Area, Reservoir Basin, etc

DRILLING PROGRAM

Equipment Used	Number of Holes		Number of Samples Taken		
	Exploration	Sampling	Undisturbed (state type)	Disturbed Large	Disturbed Small
RD	3	-	-	-	-
PA	1	-	-	-	-
Total	4	-	-	-	-

SUMMARY OF FINDINGS

(include only factual data)

Alluvial silty clays, slightly sandy & gravelly, 6 to 8 feet thick overlie the residual shale, silty clay (CH). Bedrock, hardness 1-2, chips easily found from 10 to 11 feet in depth.

Form SCS-376B
Sheet ___ of ___

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USDA-SCS

DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

FEATURE Borrow Area
(Centerline of Dam, Principal Spillway, Emergency Spillway, the Stream Channel, Investigations for Drainage of Structure, Borrow Area, Reservoir Basin, etc.)

DRILLING PROGRAM

Equipment Used	Number of Holes: Exploration	Number of Holes: Sampling	Number of Samples Taken: Undisturbed (state type)	Number of Samples Taken: Disturbed: Large	Number of Samples Taken: Disturbed: Small
PA	20	3	–	2	–
Total	20	3	–	2	–

SUMMARY OF FINDINGS
(include only factual data)

Alluvial material 6.0 to 11.0 thick composed of silty slightly gravelly clay (CH) overlying silty slightly gravelly & calcareous clays (CL). Residual material is stiff shaly clay 4 to 8 feet thick overlying bedrock, hardness 1 to 2, shale.

Form SCS-376B
Sheet ___ of ___

USDA-SCS

10-59

DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

FEATURE Emergency Spillway

(Centerline of Dam, Principal Spillway, Emergency Spillway, the Stream Channel, Investigations for Drainage of Structure, Borrow Area, Reservoir Basin, etc.)

DRILLING PROGRAM

Equipment Used	Number of Holes		Number of Samples Taken		
	Exploration	Sampling	Undisturbed (state type)	Disturbed Large	Disturbed Small
PA	8	3	—	1	—
Total	8	3	—	1	—

SUMMARY OF FINDINGS

(include only factual data)

Soils throughout the forebay crest, and upper exit area are composed of 1.5 to 8 feet of residual clay (CH) which overlies slightly gravelly to gravelly CL materials in the lower exit area are slightly sandy to sandy clays containing gravels which are overlain by CH soils.

Form SCS-378B
Sheet ___ of ___

USDA-SCS

10-59

DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

FEATURE Stream Channel

(Centerline of Dam, Principal Spillway, Emergency Spillway, the Stream Channel, Investigations for Drainage of Structure, Borrow Area, Reservoir Basin, etc.)

DRILLING PROGRAM

Equipment Used	Number of Holes		Number of Samples Taken		
	Exploration	Sampling	Undisturbed (state type)	Disturbed Large	Disturbed Small
PH	6	—	—	—	—
Total	6	—	—	—	—

SUMMARY OF FINDINGS

(include only factual data)

Recent alluvial soil 2 to 6 feet in thickness consists of silty, slightly gravelly & sandy clays. The alluvials overlie 3 to 7 feet of residual shale clay. Bedrock was found in all borings.

Water was ponded in the channel at time of site investigation.

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SCS-376C
REV. 2-64
SHEET 2 OF 2

DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

WATERSHED	SUBWATERSHED	COUNTY	STATE
Plum Creek		Hays	Texas

SITE NO.	SITE GROUP	STRUCTURE CLASS	INVESTIGATED BY: (SIGNATURE OF GEOLOGIST)	DATE
2	I	A		5-31-67

INTERPRETATIONS AND CONCLUSIONS

Emergency Spillway. An estimated 19,700 cubic yards of excavation will be required above proposed grade. All required excavation classed as common. The limited quantities of excavated material from the forebay, crest and upper exit area may be referred to nearby sites for compaction data. The surface CH from the lower exit area may be referred to Comp # 2 from the borrow. Soils are moderately to highly erodible and should be sloped 3:1, and vegetative cover provided.

Borrow Area. Approximately 164,000 cu. yards of material is available above the shaly CH, horizon through "C" grid. The majority of the soils over the entire area were silty CH (fcL although some pockets & lenses of gravelly, slightly calcareous materials were found on all grids. It is suggested that borrowing be limited to horizons above the residual shaly clay. This should not entail moving the Southwestern Bell Telephone buried cable located between "C" & "D" grids.

See trial form sheet 2 for estimated yardages & suggested useage of materials. If needed, additional soils similar to those sampled are available upstream from "C" grid.

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SCS-376C
REV. 2-64
SHEET 1 OF 2

DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

WATERSHED	SUBWATERSHED	COUNTY	STATE
Plum Creek		Hays	Texas

SITE NO.	SITE GROUP	STRUCTURE CLASS	INVESTIGATED BY: (SIGNATURE OF GEOLOGIST)	DATE
2	I	A		5-31-67

INTERPRETATIONS AND CONCLUSIONS

℄ Dam. Slightly gravelly to gravelly clay immediately overlying residual shaly clay (CH) was encountered in most borings within sediment pool elevation. The suggested cut off trench to bottom on shaly CH from approximate sta. 21+00 to 31+00 will remove the gravelly horizons. This should give a near positive cut off without excessive cut depths. See trial form sheet 3 for suggested cutoff trench depths.

Caution - High pressure gas pipe line at approximate station 135+25 ℄ Dam.

Principal Spillway Location, alignment and foundation appear satisfactory. The suggested minimum trench should be adequate. See sheet 3 of trial forms for suggested foundation trench depths.

Stream Channel. The channel is poorly defined from section A thru I. Sections J through L are somewhat more incised, but normal embankment preparation in conjunction with the suggested cutoff trench should provide adequate treatment at all sections.

Drainage - Not recommended.

Trial Form

REPORT TO ACCOMPANY
DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

SAMPLES OF FOUNDATION MATERIALS FOR LABORATORY TESTS

Watershed Plum Creek Site No. 2

Hole No.	Sample Type	Field Class.	Depth From	Depth To	Type of Test M.A.	Shear	Cons.	Perm.	Salt	Disp.
	No Samples									

Comments: Shallow alluvials overlying bedrock, samples felt unnecessary. Foundation appears satisfactory.

Sheet 1 of 3

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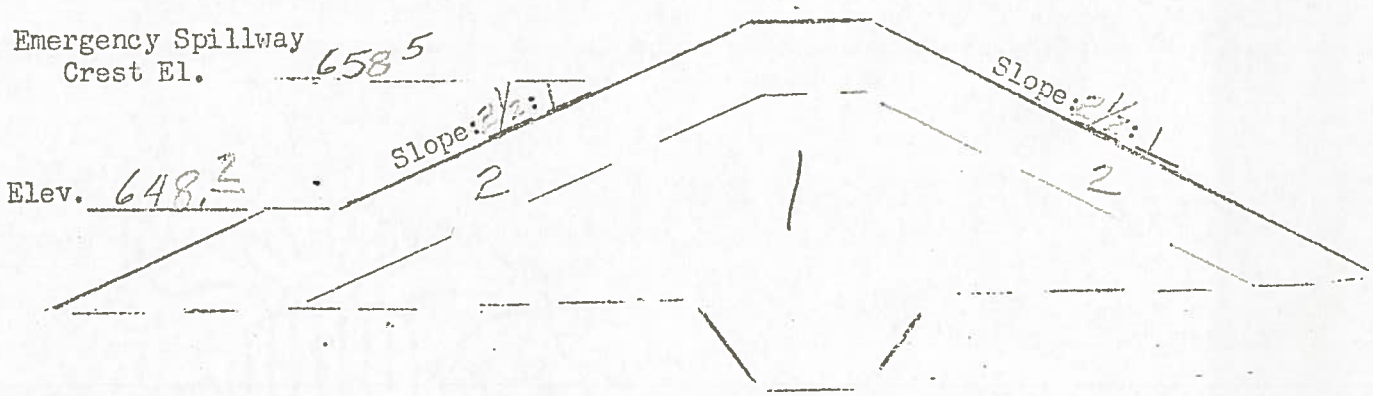
Trial Form

REPORT TO ACCOMPANY
DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

COMPOSITE SAMPLES FOR MOISTURE DENSITY DETERMINATION

Watershed Plum Creek Site No. 2

SUGGESTED EMBANKMENT SECTION(S)



SUGGESTED USE OF MATERIALS

Comp. No.	Material Source	Hole Nos.	Field Class.	Depth From	Depth To	Emb. Sec.	Quan. Avail. (Est.) Cu. Yds.
1	Emer. Spwy.	255, 256, 257	CL	2.0	6.0	2	7,000
2	Borrow	155, 161, 167	CH	0.5	5.0	1	88,000 *
3	"	155, 161, 167	CL	2.0	11.0	1	83,000

Comments: * Includes approx. 6,400 cubic yards from exit area of emergency spillway.

Trial Form

REPORT TO ACCOMPANY
DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

GROUNDWATER ELEVATIONS AND SUGGESTED TRENCH DEPTHS FOR CUTOFF AND PRINCIPAL SPILLWAY FOUNDATION

Watershed Plum Creek Site No. 2

Centerline Embankment					Centerline Principal Spillway				
Test Hole No.	Ground Water Elev.	Trench Bottom Depth	Trench Bottom Elev.	Material at Grade	Test Hole No.	Ground Water Elev.	Trench Bottom Depth	Trench Bottom Elev.	Material at Grade
1	—	6.0	644.4	CL	351	—	3.0	626.2	CL
2	—	6.0	639.4	CL	301	—	3.0	626.3	CH
3	—	6.0	637.2	CH	303	—	3.0	626.1	CH
4	—	7.0	638.3	CH	302	—	3.0	626.1	
455	—	6.0	619.3	CH					
303	—	6.0	638.1	CH	Alternate Location				
5	—	6.0	628.3	CH					
53	—	6.0	626.1	CH					
452	—	6.0	625.2	CH					
6	—	7.0	624.2	CH					
54	—	6.0	632.3	CH					
7	—	6.0	624.5	CH					

Comments: Keuwin abutments above sediment pool elevation.

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED: Plum Creek | SUB-WATERSHED: | SITE NO. 2
LOCATION: | OWNER: | STATE: Texas
LOGGED BY: Evans | DATE: 5-15-67 | PROJECT: WP-07 ____ WP-08 3029 FP-03 ____ P.L.-46 ____
DRILLING EQUIPMENT: RD & PA | LOCATION OF HOLES: ℄ Dam

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES 1 TYPE	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES 2 REM. MIN. DIAM.	SAMPLES 3 REC. %
51	12+00 656±	0.0	1.0	Clay, M - stf, brown		CH	DB							
		1.0	4.0	Clay, M - Sl. G, calc, stf, tan		CL	"							
		4.0	6.0	Clay, S - M, stf, reddish tan		CL	"							
		6.0	8.0	Clay, M - G, S, stf, tan		CL	"							
		8.0	12.0	Clay, M - Sh, v/stf, mottled tan - gray		CH	"							
52	15+00 651±	0.0	6.0	Clay, M - stf, brown		CH	DB							
		6.0	11.0	Clay, M - G, calc, stf, tan		CL	"							
		11.0	15.0	Clay, M - Sh, v/stf, mottled tan - gray		CH	"							
1	18+00 647±	0.0	2.0	Clay, M - stf, brown		CH	BA							
		2.0	10.0	Clay, M - calc, sl. G, stf, tan		CL	"							
		10.0	24.0	Clay, M - Sl. Sh to Sh, v/stf, mottled tan - gray		CH	"							
		24.0	30.0	Shale - hd 1-2, blue										

1. DISTURBED--UNDISTURBED-ROCK CORE
2. COARSE MATERIAL REMOVED
3. PERCENT SAMPLE RECOVERY

JUN 2 1967

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED: Plum Creek | SUB-WATERSHED: | SITE NO.: 2
LOCATION: | OWNER: | STATE: Texas
LOGGED BY: Evans - Lathrop | DATE: 5-15-64 | PROJECT: WP-07 ____ WP-08 2029 FP-03 ____ P.L.-46 ____
DRILLING EQUIPMENT: RD | LOCATION OF HOLES: E Dam

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES 1 TYPE	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES 2 REM. MIN. DIAM.	SAMPLES 3 REC. %
2	19+50 645±	0.0	2.0	Clay, M - stf, brown		CH	BA							
		2.0	8.0	Clay, M - calc, sl. G, stf, tan		CL	"							
		8.0	22.0	Clay, M - sl. Sh to Sh, v/stf, mottled tan-gray		CH	"							
		22.0	26.0	Shale - hd 1-2, blue										
3	21+00 643±	0.0	2.0	Clay, M - stf, brown										
		2.0	6.0	Clay, M - calc, sl. G to G, stf, tan		CH	BA							
		6.0	22.0	Clay, M - sl. Sh to Sh, v/stf, mottled tan-gray		CL	"							
		22.0	28.0	Shale - sl. gyp to 26.0, hd 1-2, blue		CH	"							
4	22+60 640±	0.0	4.0	Clay, M - stf, brown										
		4.0	17.0	Clay, M - sl. G, sl. calc, stf, tan		CH	BA							
		7.0	21.0	Clay, M - sl. Sh to Sh, v/stf, mottled tan-gray		CL	"							
		21.0	24.0	Shale - sl. gyp to 22.0, hd 1-2, blue		CH	"							
5	26+00 630±	0.0	4.0	Clay, M - sl. G 2.0 - 4.0, stf, brown										
		4.0	6.0	Clay, M - sl. G, sl. calc, stf brown-tan		CH	BA							
		6.0	12.0	Clay, M - Sh, v/stf, mottled tan-gray		CL	"							
		12.0	16.0	Shale - hd 1-2, blue		CH	"							

1. DISTURBED-UNDISTURBED-ROCK CORE 2. COARSE MATERIAL REMOVED 3. PERCENT SAMPLE RECOVERY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED: Plum Creek | SUB-WATERSHED: | SITE NO.: 2

LOCATION: | OWNER: | STATE: Texas

LOGGED BY: Evans - Lathrop | DATE: 5-15-67 | PROJECT: WP-07 ____ WP-08 2029 FP-03 ____ P.L.-46 ____

DRILLING EQUIPMENT: RD & PH | LOCATION OF HOLES: E Dam

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES 1 TYPE	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES 2 REM. MIN. DIAM.	SAMPLES 3 REC. %
53	27+00 631±	0.0	4.0	Clay, M - stf, sl. G, brown		CH	DB							
		4.0	6.0	Clay, M - sl. S, stf, brown		CL	"							
		6.0	12.0	Clay, M - sl. Sh to Sh, v/stf, mottled tan-gray		CH	"							
		12.0	15.0	Shale - hd 1-2, blue		-								
6	28+00 632±	0.0	4.0	Clay, M - sl. G, stf, brown		CH	BH							
		4.0	7.0	Clay, M - sl. G, sl. calc, stf, tan		CL	"							
		7.0	12.0	Clay, M - Sh, v/stf, mottled tan-gray		CH	"							
		12.0	18.0	Shale - hd. 1-2, blue		-								
54	29+30 641±	0.0	4.0	Clay, M - sl. G, stf, brown		CH	DB							
		4.0	6.0	Clay, M - sl. S, sl. G, stf, brown - tan		CL	"							
		6.0	15.0	Clay, M - sl. gyp, sl. sh to Sh, v/stf, mottled tan-gray		CH	"							

1. DISTURBED-UNDISTURBED-ROCK CORE 2. COARSE MATERIAL REMOVED 3. PERCENT SAMPLE RECOVERY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED: Plum Creek
SUB-WATERSHED:
SITE NO. 2
LOCATION:
OWNER:
STATE: Texas
LOGGED BY: Lathrop
DATE: 5-15-67
PROJECT: WP-07 ______ WP-08 3029 FP-03 ______ P.L.-46 ______
DRILLING EQUIPMENT: RD & PA
LOCATION OF HOLES: ℄ Dam

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	TYPE[1]	FROM FT.	TO FT.	CSE. %	REM.[2] MIN. DIAM.	REC.[3] %
7	30+35	0.0	4.0	Clay, M-stf, brown		CH	BA							
	647±	4.0	20.0	Clay, M-calc to 6.0, Sl. sh to Sh, v/stf, mottled tan-gray		CH	"							
		20.0	26.0	Shale-gyp to 21.0, hd 1-2, blue		-	"							
55	32+30	0.0	4.0	Clay, M-calc, stf, brown		CH	DB							
	658±	4.0	15.0	Clay, M-Sl. sh to Sh, v/stf, mottled tan-gray		CH	"							

1. DISTURBED-UNDISTURBED-ROCK CORE 2. COARSE MATERIAL REMOVED 3. PERCENT SAMPLE RECOVERY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED: Plum Creek | SUB-WATERSHED | SITE NO. 2

LOCATION | OWNER | STATE Texas

LOGGED BY: Evans - Lathrop | DATE: 5-15-67 | PROJECT: WP-07 ____ WP-08 2029 FP-03 ____ P.L.-46 ____

DRILLING EQUIPMENT: RD & PH | LOCATION OF HOLES: Principal Spillway

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES 1 TYPE	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES 2 REM. MIN. DIAM.	SAMPLES 3 REC. %
351	2+00	0.0	3.0	Clay, M-stf, brown.		CH	DB							
	629±	3.0	6.0	Clay, M-sl. G, stf, brown-tan		CL	"							
		6.0	10.0	Clay, M-sl. sh to sh, sl. gyp, v/stf, mot. tan-gray		CH	"							
		10.0	15.0	Shale-hd. 1-2, blue		—	"							
301	2+25	0.0	4.0	Clay, M-stf, brown		CH	BA							
	629±	4.0	8.0	Clay, M-sl. S, stf, brown-tan		CL	"							
		8.0	11.0	Clay, M-sh, v/stf, mottled tan-gray		CH	"							
		11.0	16.0	Shale-hd 1-2, blue		—	"							
303	3+00±	0.0	4.0	Clay, M-sl. G, stf, brown		CH	BA							
	Princ. Spwy	4.0	6.0	Clay, M-G, sl. S, stf, tan-brown		CL	"							
	± 24+27	6.0	11.0	Clay, M-sh, v/stf, mottled tan-gray		CH	"							
	± Dam	11.0	16.0	Shale-hd 1-2, blue		—	"							
	630.± 629±													
302	3+85	0.0	4.0	Clay, M-stf, brown		CH	BA							
	629±	4.0	7.0	Clay, M-sl. G, sl. S, stf, tan-brown		CL	"							
		7.0	11.0	Clay, M-sh, v/stf, mottled tan-gray		CH	"							
		11.0	16.0	Shale-hd 1-2, blue		—	"							

1. DISTURBED-UNDISTURBED-ROCK CORE 2. COARSE MATERIAL REMOVED 3. PERCENT SAMPLE RECOVERY

SHEET 1 OF 1 SHEETS

JUN 2 1967

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED: Plum Creek	SUB-WATERSHED:	SITE NO.: 2	
LOCATION:	OWNER:	STATE: Texas	
LOGGED BY: Evans - Lathrop	DATE: 5-15-67	PROJECT: WP-07 ____ WP-08 2029 FP-03 ____ P.L.-45 ____	
DRILLING EQUIPMENT: PH		LOCATION OF HOLES: Stream Channel	

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES 1 TYPE	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES 2 REM. MIN. DIAM.	SAMPLES 3 REC. %
451	Sect. A 629±	0.0	2.0	Clay, M-Sl. G, stf, brown		CH	DB							
		2.0	8.0	Clay, M-Calc to 3.0, sh, v/stf, mottled tan-gray		CH								
		8.0	10.0	Shale-hd 1-2, blue										
452	Sect. C 629± Approx = sta 27+76 E Dam	0.0	4.0	Clay, M-G to 2.0, Sl. G 2.0-4.0, stf, brown		CH	DB							
		4.0	6.0	Clay, M-Si. S, Sl. G, stf, tan-brown		CL								
		6.0	11.0	Clay, M-Sh, v/stf, mottled tan-gray		CH								
		11.0	12.0	Shale-hd 1-2, blue										
453	Sect. D 628±	0.0	4.0	Clay, M-Sl. G, stf brown		CH	DB							
		4.0	10.0	Clay, M-Sl. Sh to Sh, v/stf, mottled tan-gray		CH								
		10.0	12.0	Shale-hd 1-2, blue										

1. DISTURBED-UNDISTURBED-ROCK CORE 2. COARSE MATERIAL REMOVED 3. PERCENT SAMPLE RECOVERY

SHEET 1 OF 2 SHEETS

JUN 2 1967

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED: Plum Creek
SUB-WATERSHED:
SITE NO.: 2
LOCATION:
OWNER:
STATE: Texas
LOGGED BY: Evans
DATE: 5-15-61
PROJECT: WP-07 ____ WP-08 20?? FP-03 ____ P.L.-46 ____
DRILLING EQUIPMENT: PA
LOCATION OF HOLES: Stream Channel

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES TYPE[1]	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES REM.[2] MIN. DIAM.	SAMPLES REC.[3] %
454	Sect. I 628±	0.0	2.5	Clay, M-G, S, stf, brown-tan		CL	DB							
		2.5	10.0	Clay, M-Sl. Sh to Sh, v/stf, mottled tan-gray		CH								
		10.0	11.0	Shale-hd 1-2, blue										
455	Sect. K 625±	0.0	6.0	Clay, M-Sl.G, S, stf, brown-tan		CL	DB							
		6.0	9.0	Clay, M-Sh, Sl. gyp, v/stf, mottled tan-gray		CH								
		9.0	10.0	Shale-hd 1-2, blue										
456	10' Rt. Sect. L 629±	0.0	3.0	Clay, M-stf, brown										
		3.0	6.0	Clay, M-Sl.G, stf, tan		CH	DB							
		6.0	9.0	Clay, M-Sl. Sh to Sh, v/stf, mottled tan-gray		CL CH								
		9.0	11.0	Shale-hd 1-2, blue										

1. DISTURBED-UNDISTURBED-ROCK CORE
2. COARSE MATERIAL REMOVED
3. PERCENT SAMPLE RECOVERY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED Plum Creek	SUB-WATERSHED	SITE NO. 2
LOCATION	OWNER	STATE Texas
LOGGED BY Evans	DATE 5-17-57	PROJECT: WP-07 ____ WP-08 ____ FP-03 ____ P.L.-46 ____
DRILLING EQUIPMENT P. A.	LOCATION OF HOLES Emerson Spur	

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES 1 TYPE	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES 2 REM. MIN. DIAM.	SAMPLES 3 REC. %
251	9+00 E 656.6	0.0	1.5	Clay, M - brown		CH	DB							
		1.5	3.0	Clay, M - G, calc, tan		CL	"							
252	11+00 Rt. 659 ±	0.0	2.0	Clay, M - brown		CH	DB							
		2.0	5.0	Clay, M - G, calc, tan		CL	"							
253	11+00 Lt 660 ±	0.0	2.5	Clay, M - brown		CH	DB							
		2.5	6.0	Clay, M - sl G, calc, tan		CL	"							
254	14+00 E 657 ±	0.0	4.0	Clay, M - brown		CH	DB							
255	16+00 Lt 653 ±	0.0	2.0	Clay, M - brown		CH	DB	1	Dist	2.0	4.0			1
		2.0	5.0	Clay, M - S, G, calc, tan		CL	"							
256	16+00 Rt 654 ±	0.0	3.0	Clay, M - brown		CH	DB	1	Dist	3.0	4.0			1
		3.0	7.0	Clay, M - sl. G, sl. S. calc, tan		CL	"							
257	18+00 Rt. 649 ±	0.0	2.0	Clay, M - brown		CH	DB	1	Dist	2.0	5.0			1
		2.0	6.0	Clay, M - S, G, calc, tan		CL	"							

1. DISTURBED-UNDISTURBED-ROCK CORE 2. COARSE MATERIAL REMOVED 3. PERCENT SAMPLE RECOVERY

JUN 2 1957

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED: Plum Creek | SUB-WATERSHED: | SITE NO.: 2
LOCATION: | OWNER: | STATE:
LOGGED BY: Evans | DATE: 5-17-67 | PROJECT: WP-07 ____ WP-08 ____ FP-03 ____ P.L.-46 ____
DRILLING EQUIPMENT: P.A. | LOCATION OF HOLES: Emergency Spwy.

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS [1]	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES 1 TYPE	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES 2 REM. MIN. DIAM.	SAMPLES 3 REC. %
258	19+50 Lt 641²	0.0	4.0	Clay, M - brown		CH	DB							
		4.0	8.0	Clay, M - sl. G, sl. S, sl. calc. tan		CL	"							

1. DISTURBED-UNDISTURBED-ROCK CORE 2. COARSE MATERIAL REMOVED 3. PERCENT SAMPLE RECOVERY

SHEET 2 OF 2 SHEETS

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED: Plum Creek | SUB-WATERSHED: | SITE NO.: 2
LOCATION: | OWNER: | STATE: Texas
LOGGED BY: Evans - Lathrop | DATE: 5-16-67 | PROJECT: WP-07 ____ WP-08 2029 FP-03 ____ P.L.-46 ____
DRILLING EQUIPMENT: PA | LOCATION OF HOLES: Barnum

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES TYPE[1]	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES REM.[2] MIN. DIAM.	SAMPLES REC.[3] Comp %
151	A 23+25 644³	0.0	4.0	Clay, M, sl. G. brown		CH	DB							
		4.0	7.0	Clay, M, sl. calc., sl. G, tan brown		CL	"							
		7.0	15.0	Clay, M, sl. sh. to sh., mottled tan to gray.		CH	"							
152	A 25+00 642!	0.0	4.0	Clay, M, sl. G, brown		CH	DB							
		4.0	7.0	Clay, M, sl. calc. sl. G, v/G 6,0-7.0, tan brown		CL	"							
		7.0	15.0	Clay, M, sl. sh to sh, v. stf. mottled tan to gray		CH	"							
153	A 27+00 637⅝	0.0	2.0	Clay, M, sl. G. brown		CH	DB							
		2.0	6.0	Clay, M, sl. calc, sl. G. tan brown		CL	"							
		6.0	13.0	Clay, M, sl. sh to sh. mottled tan to gray		CH	"							
		13.0	15.0	Shale, hd 1-2, blue		—	"							
154	A 29+00 633⅝	0.0	4.0	Clay, M, sl. G, brown		CH	DB							
		4.0	8.0	Clay, M, sl. calc, sl. G, tan-brown		CL	"							
		8.0	12.0	Clay, M, sl sh to sh. v/stf. mottled tan to blue		CH	"							
		12.0	12.5	Shale, hd 1-2, blue		—								

1. DISTURBED-UNDISTURBED-ROCK CORE 2. COARSE MATERIAL REMOVED 3. PERCENT SAMPLE RECOVERY

SHEET 1 OF 5 SHEETS

JUN 2 1967

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED: Plum Creek | SUB-WATERSHED: | SITE NO.: 2
LOCATION: | OWNER: | STATE: Texas
LOGGED BY: Evans - Lathrop | DATE: 5-16-67 | PROJECT: WP-07 ____ WP-08 ____ FP-03 ____ P.L.-46 ____
DRILLING EQUIPMENT: P.A | LOCATION OF HOLES: Borrow

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES 1 TYPE	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES 2 REM. MIN. DIAM.	SAMPLES 3 REC. Comp %
155	A 31+00 6333	0.0	5.0	Clay, M, G to 3.0, sl G to 5.0 brown		CH	DB	1	Dist	1.0	5.0			2
		5.0	7.0	Clay, M, sl. S, sl G, tan - brown		CL	"	2	"	5.0	7.0			3
		7.0	11.0	Clay, M, sl sh to sh, v/stf., mottled gray to tan		CH	"							
		11.0	12.0	Shale, hd 1-2, blue		—	"							
156	B 22+00 647±	0.0	4.0	Clay, M, sl. G. brown		CH	DB							
		4.0	7.0	Clay, M, sl. calc, sl. G, tan - brown		CL	"							
		7.0	15.0	Clay, M, sl sh. to sh. v/stf, mottled gray to tan		CH	"							
157	B 24+00 643	0.0	4.0	Clay, M, sl. G, brown		CH	DB							
		4.0	7.0	Clay, M, sl. calc., G, tan - brown		CL	"							
		7.0	15.0	Clay, M, sl. sh to v sh. v/stf, mottled tan to gray		CH	"							
158	B 26+00 642	0.0	5.0	Clay, M, sl. G. brown		CH	DB							
		5.0	8.0	Clay, M, sl calc. G, tan - brown		CL	"							
		8.0	15.0	Clay, M, sl sh to sh, G. v/stf, mottled tan to gray		CH	"							

1. DISTURBED-UNDISTURBED-ROCK CORE 2. COARSE MATERIAL REMOVED 3. PERCENT SAMPLE RECOVERY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED Plum Creek | SUB-WATERSHED | SITE NO. 2

LOCATION | OWNER | STATE Texas

LOGGED BY | DATE 5-17-67 | PROJECT: WP-07 ____ WP-08 ____ FP-03 ____ P.L.-46 ____

DRILLING EQUIPMENT PA | LOCATION OF HOLES Barrow

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES 1 TYPE	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES 2 REM. MIN. DIAM.	SAMPLES 3 REC. Comp %
159	B 23+00 642 Lt	0.0	4.0	Clay, M, sl. G 2.0-3.0, brown		CH	DB							
		4.0	7.0	Clay, M, sl calc, sl. G, tan - brown		CL	"							
		7.0	14.0	Clay, M, sl. sh to sh. v/stf. mottled tan to gray		CH	"							
160	B 30+00 638 Lt	0.0	4.0	Clay, M, sl. G 3.0-4.0, brown		CH	DB							
		4.0	7.0	Clay, M, sl. calc, sl. G, tan - brown		CL	"							
		7.0	13.0	Clay, M, sl sh to sh, v/stf, sl gyp 12.0-13.0 mottled tan to gray		CH	"							
		13.0	14.0	Shale, hd 1-2, blue		—	"							
161	B 32+00 635 Lt	0.0	4.0	Clay, M, sl. G, brown		CH	DB	1	Dist	1.0	4.0			2
		4.0	8.0	Clay, M, v/G, tan - brown		CL	"	2	"	4.0	8.0			3
		8.0	10.0	Clay, M, sl. sh. to sh, v/stf, mottled tan to gray		CH	"							
		10.0	12.0	Shale, hd 1-2, blue		—								
162	B 34+00 646 Lt	0.0	5.0	Clay, M, sl. G, sl calc 3.0-5.0 brown		CH	DB							
		5.0	10.0	Clay, M, sl. calc. 5.0-7.0, tan to lt brown		CL	"							
		10.0	15.0	Clay, M, sl. sh to sh, v/stf, tan to gray		CH								

1. DISTURBED-UNDISTURBED-ROCK CORE 2. COARSE MATERIAL REMOVED 3. PERCENT SAMPLE RECOVERY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED Plum Creek | SUB-WATERSHED | SITE NO. 2

LOCATION | OWNER | STATE Texas

LOGGED BY | DATE 5-17-67 | PROJECT: WP-07 ____ WP-08 ____ FP-03 ____ P.L.-46 ____

DRILLING EQUIPMENT P. A. | LOCATION OF HOLES Borrow

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES 1 TYPE	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES 2 REM. MIN. DIAM.	SAMPLES 3 REC. %
163	C 26+00 647±	0.0	5.0	Clay, M, brown		CH	DB							
		5.0	11.0	Clay, M, sl. S. to S. calc 9.0-11.0, tan - brown		CL	"							
		11.0	15.0	Clay, M, sl. sh. to sh, v/stf. mottled lt tan - gray		CH	"							
164	C 28+00 646±	0.0	3.0	Clay, M, sl S, sl calc, brown		CH	DB							
		3.0	7.0	Clay, M, sl S. cbls 6.0 to 7.0, tan - brown		CL	"							
		7.0	15.0	Clay, M, sl sh to v/sh. v/stf, mottled lt tan - gray		CH	"							
165	C 30+00 644±	0.0	4.0	Clay, M, sl. calc. sl. G. brown		CH	DB							
		4.0	7.5	Clay, M, sl S, sl calc, cbls 7.0-7.5, tan - brown		CL	"							
		7.5	15.0	Clay, M, sl sh to sh, v/stf. mottled lt tan - gray		CH	"							
166	C 32+00 634±	0.0	2.0	Clay, M, brown		CH	DB							
		2.0	5.0	Clay, M, tan to lt brown		CL	"							
		5.0	9.0	Clay, M, sl sh to sh. v/stf, sl gyp 7.0-9.0, mottled tan gray		CH	"							
		9.0	11.0	Shale, hd 1-2, blue		-	"							

1. DISTURBED-UNDISTURBED-ROCK CORE 2. COARSE MATERIAL REMOVED 3. PERCENT SAMPLE RECOVERY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

LOG OF TEST HOLES

SCS-533
REV. 2-64

WATERSHED Plum Creek | SUB-WATERSHED | SITE NO. 2

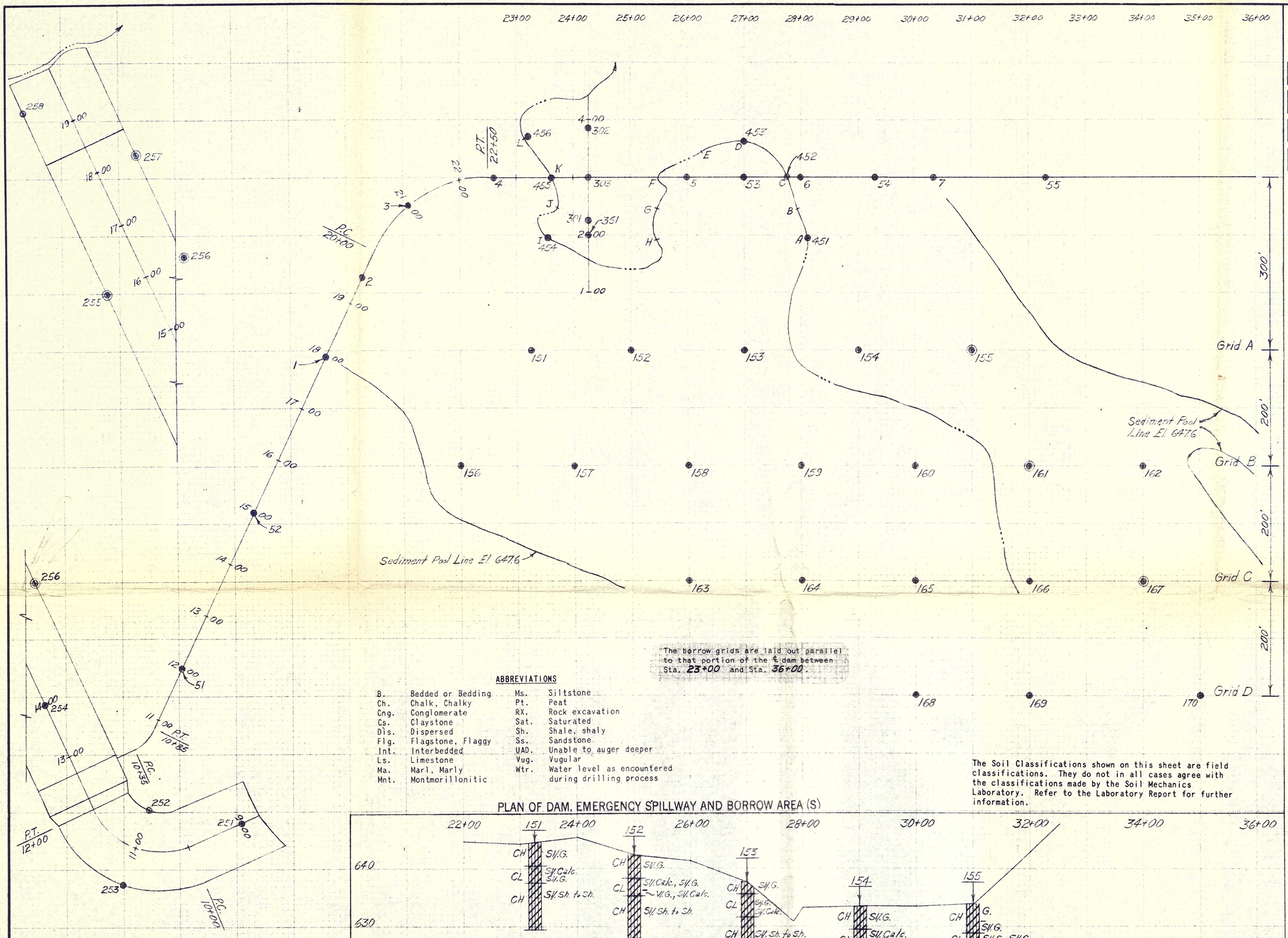
LOCATION | OWNER | STATE Texas

LOGGED BY | DATE 5-17-67 | PROJECT: WP-07 ____ WP-08 ____ FP-03 ____ P.L.-46 ____

DRILLING EQUIPMENT P.A. | LOCATION OF HOLES Travis

HOLE NO.	STA. & SURFACE ELEVATION	HOLE DEPTH FROM FT.	HOLE DEPTH TO FT.	DESCRIPTION OF MATERIALS	N	USCS	TYPE BIT USED	SAMPLES NO.	SAMPLES 1 TYPE	SAMPLES FROM FT.	SAMPLES TO FT.	SAMPLES CSE. %	SAMPLES 2 REM. MIN. DIAM.	SAMPLES 3 REC. %
167	C 34+00 641±	0.0	4.0	Clay, M, sl G, sl calc 3.0 to 4.0, brown		CH	DB	1	Dist.	1.0	4.0			2
		4.0	8.0	Clay, M, sl calc 4.0-6.0, tan to lt. brown		CL	"	2	"	4.0	8.0			3
		8.0	13.0	Clay, M, sl sh. to sh, v/stf., sl gyp 11.0-13.0, tan-gray		CH	"							
		13.0	15.0	Shale, hd 1-2, blue										
168	D 30+00	0.0	4.0	Clay, M, sl calc 2.0-4.0 brown		CH	DB							
	Est 646±	4.0	10.0	Clay, M, trace cbls 8.0-10.0, tan-gray		CH	"							
169	D 32+00	0.0	1.0	Clay, M, brown		CH	DB							
	Est 639±	1.0	4.0	Clay, M, sl S 1.0-3.0, sl. calc, tan-brown		CL	"							
		4.0	7.0	Clay, M, sl sh to sh, mottled tan to gray		CH	"							
170	D 35+00	0.0	3.0	Clay, M, brown		CH	DB							
	Est 640±	3.0	7.0	Clay, M, sl S, tan-brown		CL-CH	"							
		7.0	9.0	Clay, sl sh, mottled tan to gray		CH	"							

1. DISTURBED-UNDISTURBED-ROCK CORE
2. COARSE MATERIAL REMOVED
3. PERCENT SAMPLE RECOVERY



The borrow grids are laid out parallel to that portion of the ℄ dam between Sta. 23+00 and Sta. 36+00.

ABBREVIATIONS

B.	Bedded or Bedding	Ms.	Siltstone
Ch.	Chalk, Chalky	Pt.	Peat
Cng.	Conglomerate	RX.	Rock excavation
Cs.	Claystone	Sat.	Saturated
Dis.	Dispersed	Sh.	Shale, shaly
Flg.	Flagstone, Flaggy	Ss.	Sandstone
Int.	Interbedded	UAD.	Unable to auger deeper
Ls.	Limestone	Vug.	Vugular
Ma.	Marl, Marly	Wtr.	Water level as encountered during drilling process
Mnt.	Montmorillonitic		

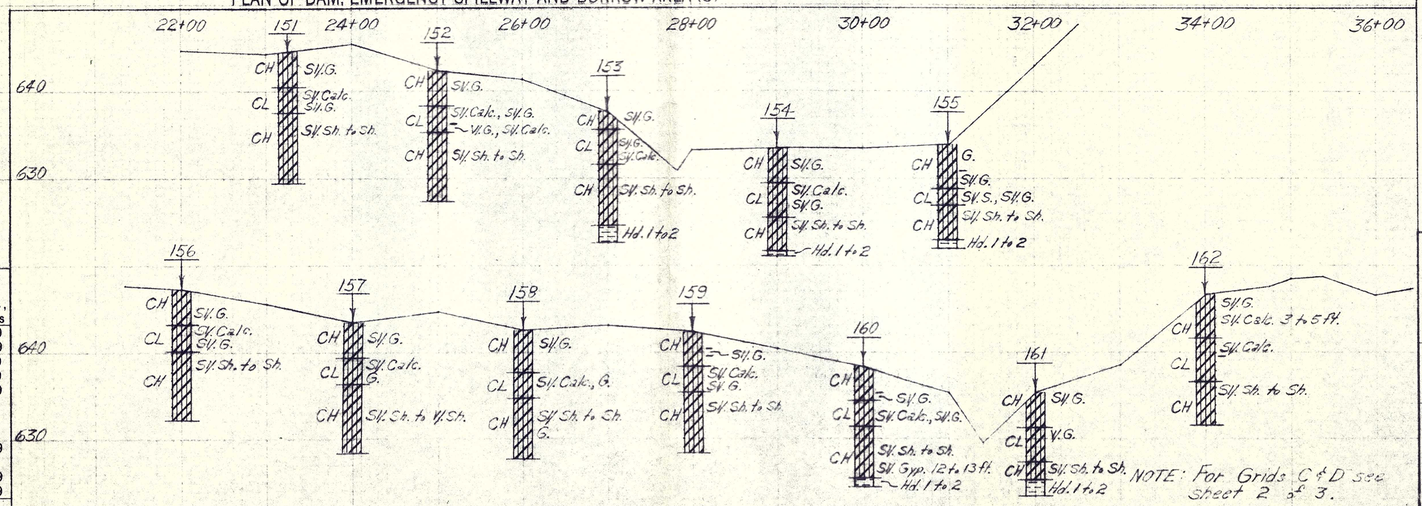
The Soil Classifications shown on this sheet are field classifications. They do not in all cases agree with the classifications made by the Soil Mechanics Laboratory. Refer to the Laboratory Report for further information.

PLAN OF DAM, EMERGENCY SPILLWAY AND BORROW AREA (S)

TEST HOLE NUMBERING SYSTEM

	Combination Rig	Power Auger	Hand Borings	Trench or Pit Excavations	Natural Outcrops, Streambanks, and Gullies
Centerline of Dam	1-49	51-99	1001-1099	2001-2099	3001-3099
Borrow Area	101-149	151-199	1101-1199	2101-2199	3101-3199
Emergency Spillway	201-249	251-299	1201-1299	2201-2299	3201-3299
Principal Spillway	301-349	351-399	1301-1399	2301-2399	3301-3399
Stream Channels	401-449	451-499	1401-1499	2401-2499	3401-3499
Relief Well Exploratory Borings	501-549	551-599	1501-1599	-	-
Foundation Drain Borings	601-649	651-699	1601-1699	2601-2699	3601-3699
Sediment Pool Drain Pipe Borings	701-749	751-799	1701-1799	2701-2799	3701-3799
Miscellaneous	801-849	851-899	1801-1899	2801-2899	3801-3899

GEOLOGIC CROSS SECTIONS OF BORROW AREA (S)



LEGEND

SYMBOLS

UNCONSOLIDATED MATERIAL

gravel; sand; silt; clay; cobbles, boulders
gravel, sandy; sand, gravelly; silt, gravelly; clay, gravelly; peat or muck
gravel, silty; sand, silty; silt, sandy; clay, sandy
gravel, clayey; sand, clayey; silt, clayey; clay, silty

CONSOLIDATED MATERIAL

Sedimentary Rocks: Conglomerate Cng.; shale sh.; limestone ls.; coal; breccia brc.; siltstone; dolomite dol.; gypsum gyp.; sandstone ss.; marl; chalk; chert cht.

Metamorphic Rocks: gneiss; schist; quartzite; slate; marble; soapstone talc serpentine

Igneous Rocks: intrusive; extrusive; pyroclastic

Undifferentiated

Other Symbols: hole logged only; hole sampled; strike and dip; pit or trench

ABBREVIATIONS

ang.	angular	lam.	laminated	G	gravel, gravelly
bld.	boulders (> 12")	lse.	loose	S	sand, sandy
calc.	calcareous	mas.	massive	M	silt, silty
cali.	caliche	med.	medium	C	clay, clayey
cav.	cavities	mic.	micaceous	O	organic
cmt.	cemented	mod.	moderately	W	well graded
cse.	coarse	n. r.	no recovery	P	poorly graded
cbl.	cobbles (3"-12")	per.	permeable		
cpt.	Compact	po.	poorly		
con.	concretions	rdd.	rounded		
xln.	crystalline	sl/.	slightly		
ds.	dense	sft.	soft		
dip.	dipping	s/.	some		
d.s.	downstream	slo.	slowly		
fn.	fine	stf.	stiff		
frm.	firm	t.b.	thin bedded		
frac.	fractured	tuff.	tuffaceous		
frg.	fragments	u.s.	upstream		
fri.	friable	var.	variable		
grn.	grain	v/.	very		
gyp.	gypseous	w/.	with		
hd.	hard	wea.	weathered		
h.	highly	w.l.	(date) static water level		

~~TEST HOLE NUMBERING SYSTEM~~

~~Centerline of dam~~	1 - 99	~~Stream channel~~	401 - 499
~~Borrow area~~	101 - 199	~~Relief wells~~	501 - 599
~~Emergency spillway~~	201 - 299		601 - 699
~~Centerline of outlet structure~~	301 - 399		701 - 799

UNIFIED SOIL CLASSIFICATION SYSTEM SYMBOLS

GW	Well graded gravels; gravel-sand mixtures
GP	Poorly graded gravels
GM	Silty gravels; gravel-sand-silt mixtures
GC	Clayey gravels; gravel-sand-clay mixtures
SW	Well graded sands; sand-gravel mixtures
SP	Poorly graded sands
SM	Silty sand
SC	Clayey sands; sand-clay mixtures
ML	Silts with liquid limit of 50 or less
MH	Silts with liquid limit above 50
CL	Clays with liquid limit of 50 or less
CH	Clays with liquid limit above 50
OL	Organic silts and clays with liquid limit of 50 or less
OH	Organic silts and clays with liquid limit above 50

Revised February 1963

PLAN AND PROFILES FOR GEOLOGIC INVESTIGATIONS

PLAN OF DAM, EMERGENCY SPILLWAY & BORROW AREA
CROSS-SECTIONS OF BORROW AREA

PLUM CREEK, SITE 2
HAYS COUNTY, TEXAS

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Investigated by J.C.E. Date 5-31-67
Title
Checked by
Plotted by E.K. 6-19-67
Checked by J.C. 6-20-67

Approved by
Title
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Title
Sheet No. 1 of 3
Drawing No.

ES 900 Sheet 1 of 3 SCS-35A

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1460

EFFECTIVE HEIGHT OF DAM ELEVATION 662.7

EMERGENCY SPILLWAY CREST ELEVATION 658.5

PRINCIPAL SPILLWAY CREST ELEVATION 647

SEDIMENT POOL LINE ELEVATION 647.6

The Soil Classifications shown on this sheet are field classifications. They do not in all cases agree with the classifications made by the Soil Mechanics Laboratory. Refer to the Laboratory Report for further information.

PROFILE AND GEOLOGIC SECTION: CENTERLINE OF DAM

Grid C

Grid F

Approx. Ground Line (Estimated)

GEOLOGIC CROSS SECTIONS OF BORROW AREA

CROSS SECTIONS OF STREAM CHANNEL(S)

PROFILE: CENTERLINE OF PRINCIPAL SPILLWAY

PLAN AND PROFILES FOR GEOLOGIC INVESTIGATIONS

PROFILE ℄ OF DAM, CROSS-SECTIONS OF STREAM CHANNEL
PROFILE ℄ PRINCIPAL SPILLWAY
CROSS-SECTIONS OF BORROW AREA

PLUM CREEK, SITE 2
HAYS COUNTY, TEXAS

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Investigated by J.C.E.	Date 5-31-67	Approved by	
Title		Title ENGINEERING FILE COPY	
Checked by		Title	
Plotted by E.K.	6-19-67	Sheet No. 2 of 3	Drawing No.
Checked by J.C.	6-20-67		

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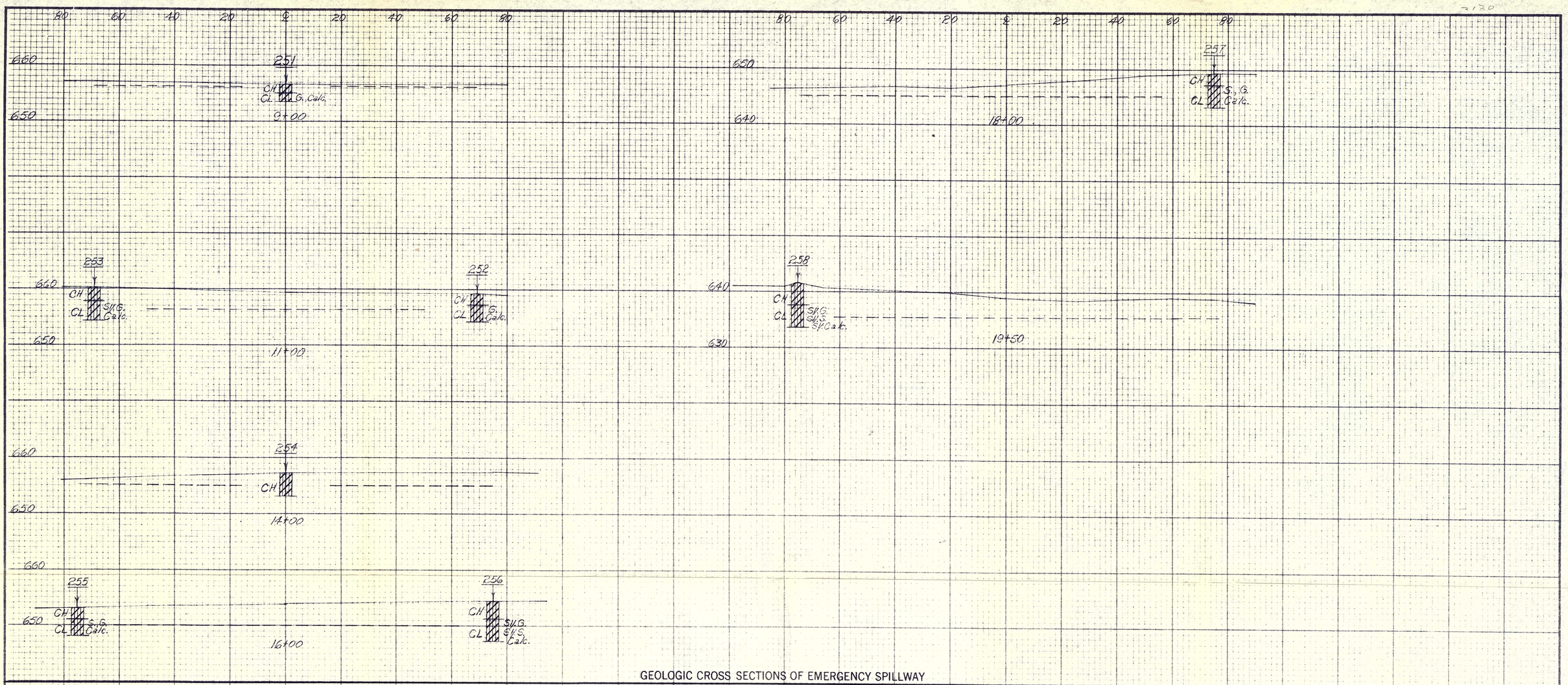
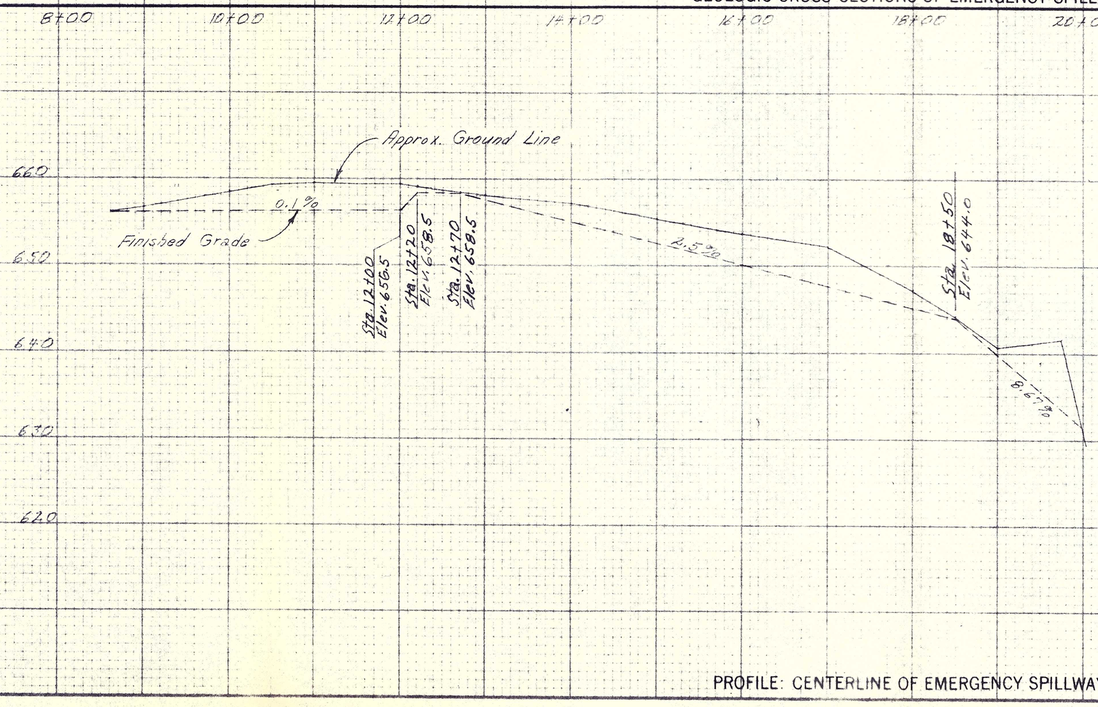


GEOLOGIC CROSS SECTIONS OF EMERGENCY SPILLWAY



PROFILE: CENTERLINE OF EMERGENCY SPILLWAY

The Soil Classifications shown on this sheet are field classifications. They do not in all cases agree with the classifications made by the Soil Mechanics Laboratory. Refer to the Laboratory Report for further information.

PLAN AND PROFILES FOR GEOLOGIC INVESTIGATIONS

PROFILE ℄ OF EMERGENCY SPILLWAY
CROSS-SECTIONS OF EMERGENCY SPILLWAY

PLUM CREEK, SITE 2
HAYS COUNTY, TEXAS

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Investigated by J.C.E.	Date 5-31-67	Approved by	
Title		Title ENGINEERING FILE COPY	
Checked by		Title	
Plotted by E.K.	6-19-67	Sheet No. 3 of 3	Drawing No.
Checked by J.C.	6-20-67		

ES 900 Sheet 3 of 3 SCS-35C (Revised February 1963)

Plum Creek 2
1208