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SUPPLEMENTAL SPILLWAY REPORT

DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

GENERAL

State Texas County Hays ; 1/4, 1/4, Sec. _____, T _____ R _____ ; Watershed Guadalupe River

Subwatershed Plum Creek Fund class (WP-2)23 Site number 12 Site group II Structure class A
(FP-2, WP-1, etc.)

Investigated by Henry H. Swaps - Col. Equipment used Falling 1500, Acker August 21 1961 Date 12-15-61
(signature and title) (Type, size, make, model, etc.)

Dale L. Bidwell - P.C.E.

SITE DATA

Drainage area size _____ sq. mi., _____ acres. Type of structure _____ Purpose _____

Direction of valley trend (downstream) _____ Maximum height of fill _____ feet. Length of fill 1100 feet.

Estimated volume of compacted fill required _____ ygrds

STORAGE ALLOCATION

	Volume (ac. ft.)	Surface Area (acres)	Depth at Dam (feet)
Sediment	_____	_____	_____
Floodwater	_____	_____	_____
_____	_____	_____	_____

SURFACE GEOLOGY AND PHYSIOGRAPHY

Physiographic description _____ Topography _____ Attitude of beds: Dip _____ Strike _____

Steepness of abutments: Left _____ percent; Right _____ percent. Width of floodplain at centerline of dam _____ feet

General geology of site: _____

Note: All data on this page remains the same as on original except as shown above.

10-59 DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

FEATURE Revised 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	Small
Failing 1500	9				
HD-21 Dozer	5	5		1	
Total	14	5		1	

SUMMARY OF FINDINGS
 (include only factual data)

The following data was obtained from the investigation of the Revised

Emergency Spillway:

The location of the Original Spillway was changed and a Revised Spillway submitted.

The data above concerning the Drilling Program does not include test borings and sampling accomplished during the investigation of the original and now obsolete Emergency Spillway location.

The Revised Emergency Spillway is located down the hillside from the original spillway as shown on the grid sheets.

Several of the test borings present in the original Emergency Spillway are also located within the areal confines of the Revised Emergency Spillway.

Three soil horizons were found in the Revised Emergency Spillway Area:

- (a) The top horizon is a CH material with slight amounts of sand and gravel.
- (b) The second horizon is a sandy GC material with cobbles.
- (c) The third horizon is a CH material containing CaCO₃.

Representative composite samples were taken from the original spillway during the initial site drill out, and a composite sample was taken of the GC horizon from the Revised Spillway.

10-59 DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

State Texas County Hays Watershed Guadalupe R. Subwatershed Plum Creek
Site number 12 Site group IX Structure class A Investigated by Henry H. Swope Date 12-15-61
(signature and title)

INTERPRETATIONS AND CONCLUSIONS
Revised Emergency Spillway

Test borings from the original Emergency Spillway which are present in the Revised Spillway Area should be given new hole location descriptions on the logs with respect to the Revised Spillway Area and the logs replotted on the plan view and cross-sections of the Revised Emergency Spillway. This should be accomplished by the Design Section plotters, since the logs of borings and the original sections are not available to us.

Elevations, hole numbers, and the description of materials from the original test borings described above will remain unchanged.

The materials found in the Revised Spillway are very similar to those found in the Original Spillway.

Composite samples #4 and 6 taken from the original spillway may be referred to materials from the appropriate horizon in the Revised Spillway. Composite #7A and B should be used in place of Composite #5 for the GC horizon. The investigation using a denser determined that all of the materials contained in the spillway cut will be removed as common excavation.

Through exploration of the Revised Spillway with a denser, the GC horizon was found to contain approximately 7% volume of materials having a grain size greater than 3" in diameter. GC materials from the Revised Spillway may be used anywhere in the dam.

GC materials may best be used in the downstream section of the dam.

A vegetative cover should be placed on the spillway soon after construction to help reduce the effects of erosion.

Materials in the exit channel section are similar to those found in the Borrow.

Trial Form

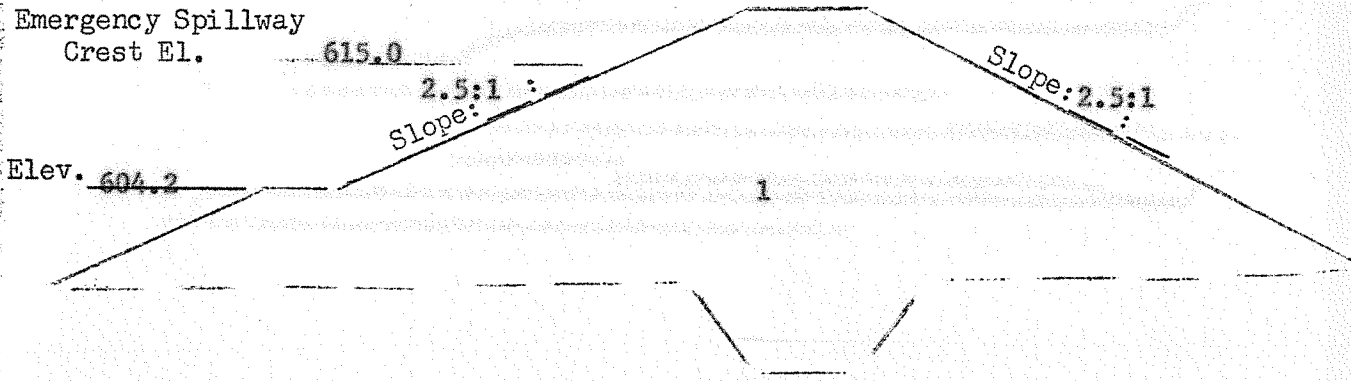
REPORT TO ACCOMPANY
 DETAILED GEOLOGIC INVESTIGATION OF DAM SITES

COMPOSITE SAMPLES FOR MOISTURE DENSITY DETERMINATION

Watershed Plum Creek

Site No. 12

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.
4	Emer. Spillway	252,201,203 253,255,206	CH	0.0	3.0	1	25,000
6	" "	252,201,203 253,206	CH	7.0	to grade	1	10,000
7A & B	" "	2201,2202,2203 2204,2205	GC	3.0	7.0	1	25,000
<p>Estimated quantities of available materials re-evaluated for the Revised Emergency Spillway. All other data on Sheet 2 of 3 of the Original Trial Forms remains unchanged. Composite #7A and B will be used in the place of Composite #5.</p>							

Comments: _____
