ACT/007/019

August 18, 1987

TO: File

FROM: Kent Wheeler, Reclamation Hydrologist KW

RE: Proposed Modification to Andalex Resourses Drainage Plan, Andalex Resourses, July 30, 1987, ACT 007/019, Carbon County, Utah

General

The proposed modification is the removal of a small culvert that has been a constant maintainance problem and replacing it with a 12 in culvert. The proposed 12 in culvert can pass the peak expected flows from the 10-yr, 24-hr storm. The minimum headwater that is available is 1 ft, the maximun required headwater to pass the peak flows is 0.6 ft (see inclosed calculations). The proposed change is acceptable as shown on the above referenced document.

cc: W. Hedberg
S. Linner
R. Summers
1239R-46

FILE COPY

Subject: Technical Analysis on Culvert Design Change
Andalex Resources

By: Kent Wheele

Date 8/14/87

Peak discharge At culvert Inlet

AVE LAND slope - 10% estimated (conservative)

Hy Length - 660 ft (measured)

Area - 1 Acre estimated (conservative)

CN - 90 disturbed

$P_{10,24}$ - 1.82 in

Q_p - 0.96 cfs

Culvert Sizing P-189 Handbook of Steel Drainage + Highway Construction Products
Inlet Control
Culvert Diameter 12"

Discharge 0.96 cfs

HW/D = 0.6

HW Required = 0.6 ft

∴ The culvert is sufficiently sized to pass the 10 yr 24 hr precipitation event

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