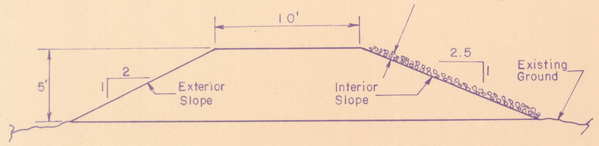



NOTE: Dikes Constructed Of Compacted Random Fill Material.

0 2 1/2 5 10 Ft.
Scale: 1" = 5'

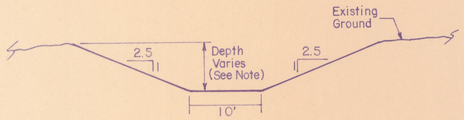
TYPICAL SECTION-EAST & WEST DIKES




NOTE: Embankments Constructed Of Random Fill Material.
Height Of Exterior Slopes Varies Depending On Location.

0 5 10 20 Ft.
Scale: 1" = 10'

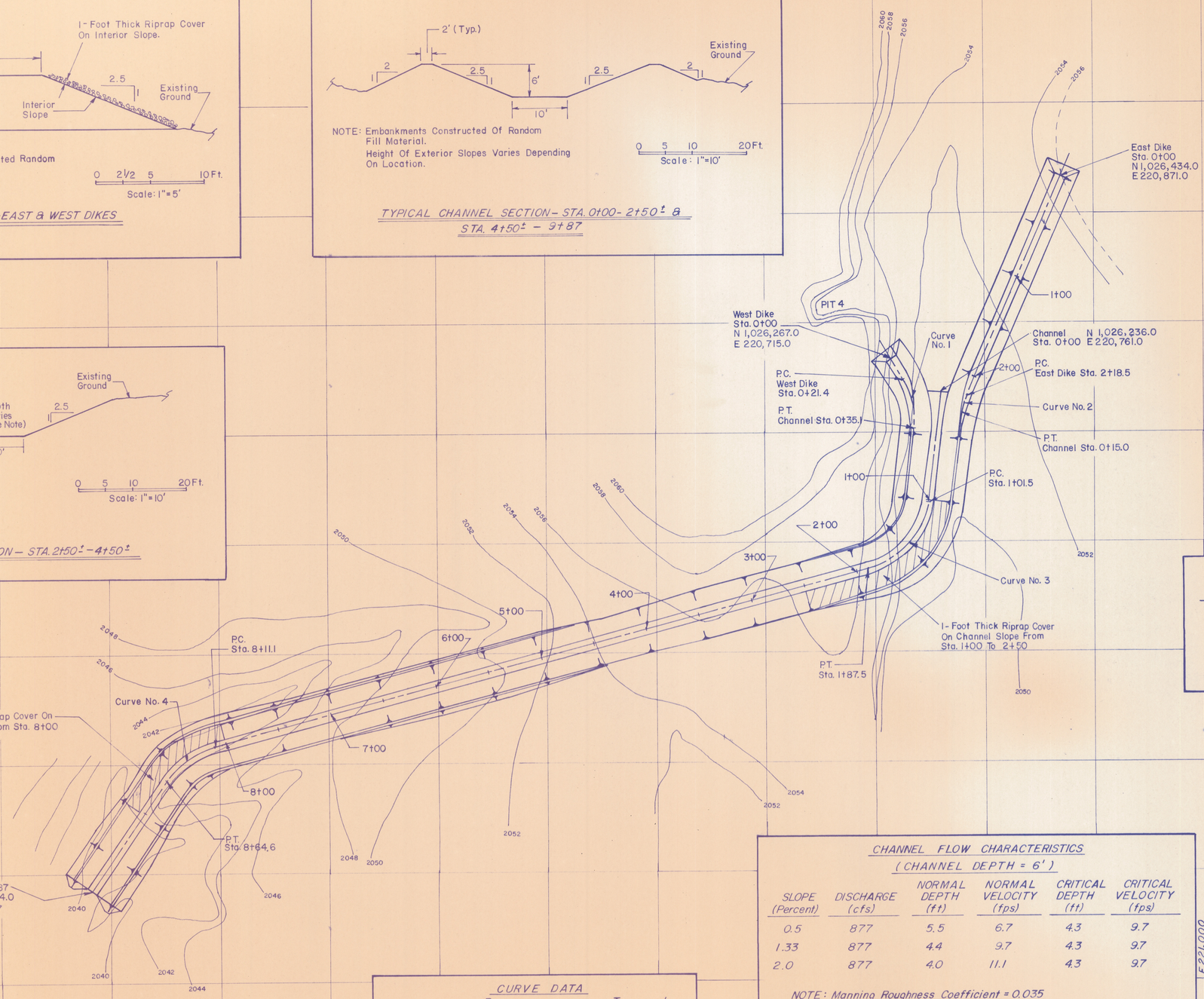
TYPICAL CHANNEL SECTION- STA. 0+00- 2+50± & STA. 4+50± - 9+87




NOTE: Depth Varies From 6' To 7 1/2', Depending On Location.

0 5 10 20 Ft.
Scale: 1" = 10'

TYPICAL CHANNEL SECTION – STA. 2+50± - 4+50±




NOTE: Terminate Dike Stationing At P.T. Of Curves 1 And 2.
NOTE: Curve Data For Transition From Dike Crest And Slopes To Channel Crest And Slopes Is Not Provided. Provide Smooth Transition.

## BEARING DATA

| SECTION | BEARING |
|---|---|
| West Dike | |
| Sta. 0+00 – 0+21.4 | S27° 06' 37" E |
| East Dike | |
| Sta. 0+00 – 2+18.5 | S23° 23' 33" W |
| Channel Section 1 | |
| Sta. 0+00 – 1+01.5 | S 9° 22' 01" W |
| Channel Section 2 | |
| Sta. 1+87.5 – 8+11.1 | S 75° 05' 58" W |
| Channel Section 3 | |
| Sta. 8+64.6 – End Sta. 9+87.0 | S 34° 14' 32" W |

## CHANNEL GRADES

| STATION | CHANNEL FLOOR SLOPE (Percent) |
|---|---|
| 0+00-4+00 | 0.5 |
| 4+00-8+50 | 2.0 |
| 8+50-9+87 | 1.33 |

## CHANNEL FLOW CHARACTERISTICS
(CHANNEL DEPTH = 6')

| SLOPE (Percent) | DISCHARGE (cfs) | NORMAL DEPTH (ft) | NORMAL VELOCITY (fps) | CRITICAL DEPTH (ft) | CRITICAL VELOCITY (fps) |
|---|---|---|---|---|---|
| 0.5 | 877 | 5.5 | 6.7 | 4.3 | 9.7 |
| 1.33 | 877 | 4.4 | 9.7 | 4.3 | 9.7 |
| 2.0 | 877 | 4.0 | 11.1 | 4.3 | 9.7 |

NOTE: Manning Roughness Coefficient = 0.035
Design Discharge Based On 100 Year, 24-Hour Design Storm.

## CURVE DATA

| CURVE NO. | R (Feet) | Δ (D,M,S) | T (Feet) | L (Feet) |
|---|---|---|---|---|
| 1 | 75 | 36°28'37" | 24.7 | 47.8 |
| 2 | 75 | 14°01'33" | 9.2 | 18.4 |
| 3 | 75 | 65°43'57" | 48.5 | 86.0 |
| 4 | 75 | 40°51'26" | 27.9 | 53.5 |

0 25 50 100 FT.
Scale: 1" = 50'

REFERENCE MAP: "Vulture Mine – Mill Wash Diversion Topo", A.F. Budge (Mining) Limited, By A.J. Fernandez, Dated October, 1987.

| NO. | DESCRIPTION | DATE |
|---|---|---|
| | | |

REVISIONS

SERGENT, HAUSKINS & BECKWITH
CONSULTING GEOTECHNICAL ENGINEERS

MILL WASH DIVERSION CHANNEL
LAYOUT, TYPICAL SECTIONS AND DESIGN CRITERIA
HEAP LEACH FACILITY
VULTURE MINE PROJECT
NEAR WICKENBURG, ARIZONA

| JOB NO. | DATE | DESIGNED BY | DRAWN BY | CHECKED BY | SHEET NO |
|---|---|---|---|---|---|
| E87-220 | 12-87 | NJL | CAW | LAH | 1 |

L D Hauskins 12/12/87

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