

AVALANCHE ATLAS

UNITED STATES PROGRAM
ON MAN AND THE
BIOSPHERE



SAN JUAN COUNTY, COLORADO

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INSTITUTE OF ARCTIC AND ALPINE RESEARCH
UNIVERSITY OF COLORADO

Avalanche Atlas San Juan County

by

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San Juan Avalanche Project

INSTITUTE OF ARCTIC AND ALPINE RESEARCH

University of Colorado

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PREFACE

Avalanche phenomena have been known, appreciated, and feared for hundreds of years in all those areas of the world where people, initially agriculturalists, have lived in high mountain lands subject to heavy snow accumulation. Only a small fraction of the total human experience with avalanches has been recorded and handed down to us and the completeness of the record is highly variable from place to place, with Switzerland, France and Austria accounting for a large share of it. Yet even here, detailed, accurate observations adequate for the provision of a sound basis for late-twentieth century development of mountain lands, is frequently lacking. Even so, the mountain systems of western North America, by comparison, are virtual unknowns.

The growth of serious tourist and recreational use of the Alps at the turn of the century, with an enormous acceleration after 1950, have witnessed such an increase in man-made structures and total number of summer and winter visitors, that the avalanche hazard has grown at an alarming rate. The Alpine countries, and especially Switzerland, have pioneered the areas of avalanche and snow mechanics research and the application of the ensuing expertise to development of mountain land-zoning policies. The great burst of developmental activities in the mountains of the North American West, dependent upon acceleration of recreational interests, lagged some 15 years behind the European experience, and is still far from comparable in terms of intensity of land use. Nevertheless, the avalanche hazard problem and the thorny questions of land-use planning are primary issues of the 1970's and 1980's forced by the mushroom growth of ski resorts, increasing interest in winter back-country experience, and expansion of mountain living and transportation across mountainous areas in general. It was within this latter-day context that the Institute of Arctic and Alpine Research (INSTAAR) of the University of Colorado, became very much involved in avalanche research and in natural hazards in mountains in general.

In 1971 a four-year task was commissioned by the Bureau of Reclamation (United States Department of the Interior) whereby INSTAAR became responsible for an attempt to develop an avalanche forecast system for the northern San Juan Mountains (Bureau of Reclamation Contract No. 14-06-D-7155).

This resulted in establishment of a base in Silverton for both winter and summer field operations. As our experience increased many other facets were added to the original program. These included studies in snow mechanics and temperature gradient metamorphism, supported by United States Army Research Office, Durham (ARO DAHCO4-75-G-0028), experimentation with alternate methods to explosives for avalanche release, funded by the Colorado State Highways Department, the Washington State Highways Department and the Federal Department of Transportation, and many studies in snow hydrology, climatology and geomorphology that were identified as graduate student dissertation topics. A major additional step was initiation of a continuing research grant from the Office of University Affairs, NASA, for application of remote sensing techniques to the solution of land-use problems in mountainous terrain. A large element of this effort has so far been devoted to identification of areas subject to avalanche and other natural hazards in specific areas such as Vail and adjacent land along Gore Creek, Crested Butte, Telluride and Ophir. More recently special attention has been given to county-wide mapping at a scale of 1:24,000 in San Juan, San Miguel and Ouray counties. This has been linked to the requirements of Colorado State House Bill 1041 and has been initiated by county request and conducted in collaboration with the Colorado Geological Survey. Finally, observations on avalanche events, obtained on a daily basis through four winters, have been reported to staff of the National Forest Service Avalanche Warning Center, Rocky Mountain Forest and Range Experiment Station, Fort Collins, and incorporated into the generalized State avalanche warning system.

This Avalanche Atlas for highways 550 and 110 within San Juan County, derives support from all of these activities as well as the County authorities themselves. Actual financial support was provided by the San Juan County Commissioners and the Bureau of Reclamation (Contract 14-06-D-7155). A special acknowledgment is accorded to Mr. Allen Nossaman, County Land Use Planner, for without his foresight and encouragement this atlas would not have been compiled. Many numbers of the INSTAAR San Juan Avalanche Project have contributed: in particular Len Miller provided the photography, maps, summary sheet technical data and final collation and editing; Richard and Betsy Armstrong compiled the terrain and vegetation data and Betsy the historical data; additional vital assistance was provided by Tom Carroll, Bill McClelland and Rod Newcomb. Finally the hand of Ed LaChapelle lies

upon all of our avalanche activities as consultant, investigator, colleague and Research Associate of INSTAAR.

In conclusion a word must be added concerning the context of the Atlas. It is an atlas, albeit highly specialized, and nothing more. The intention is to provide data in various forms, maps, photographs, and avalanche summary sheets. It is being complemented by other forms of publication: a compilation of historical data by Betsy Armstrong, to be published as INSTAAR Occasional Paper No. 18; a scientific report on the four-year avalanche study by Richard Armstrong, Edward LaChapelle, Michael Bovis and Jack D. Ives, to appear as INSTAAR Occasional Paper No. 19; county-wide natural hazard mapping by Michael Bovis and Rebecca Summer, and numerous technical papers and reports. The entire collection is identified as a vital segment of INSTAAR's overall research operation and is designated a part of the United States contribution to the Unesco* Man and the Biosphere Program (MAB): Project 6 - study of the impact of human activities on mountain and tundra ecosystems. The Atlas is dedicated to the people of San Juan County, both past and present, whose keen observational faculties, and fortitude in living with the avalanche hazard have so frequently provided us with scientific insights and invaluable historical data.



Jack D. Ives
Director, INSTAAR
Chairman, United States MAB Project 6A
Directorate

26 January, 1976

* Unesco: United Nations Educational, Scientific and Cultural Organization

INTRODUCTION

The San Juan Avalanche Atlas was developed for the San Juan Planning Commission and the San Juan County Commissioners. It is intended to aid those in need of information concerning avalanche hazards related to land use planning.

The idea of an avalanche atlas is not a new one; the Swiss were interested in compiling a register of avalanches in the 1800's. In North America, the first avalanche atlas was produced by the U. S. Forest Service for use by the Colorado Department of Highways in 1964 and is still being used for avalanche control, highway design, and highway maintenance. Similar atlases were developed in Washington State. The Washington State Department of Highways avalanche atlases are more detailed than the original Colorado atlas and include all avalanche paths affecting the highways.

The San Juan Avalanche Atlas attempts to take the next step in the evolution of the avalanche atlas in North America by providing more detailed information on the summary sheet than has been attempted in the past. Detailed technical data are supplied for each path and may be helpful to those interested in designing defensive structures for buildings, highways, etc. The information is not intended for critical engineering purposes, but rather as a guide for subsequent data gathering where necessary.

The atlas is a catalog of avalanche activity which has been observed from the late 1870's through 1975 along highways 550 and 110 in San Juan County, Colorado. However, all known avalanche paths visible from these highways are not included; only paths for which data are readily available are cataloged.

Additional information may be added to the atlas without difficulty since a separate sheet is devoted to each path. It is also emphasized that references may bracket avalanche events that have a return period ranging from once every significant snowfall to once in a hundred years or more. To assist with the continued improvement of our historical record, would atlas users in the San Juans please inform INSTAAR of any avalanche event they are able to observe. Time of day, date, and size of event should be noted and information mailed to: Director, Institute of Arctic and Alpine Research, University of Colorado, Boulder, Colorado 80309.

An explanation of the terms used follows:

MAPS:

All maps are 7½' USGS topographic reproductions with a scale of 1" = 2000'. Each avalanche path is outlined and numbered. Arrows within a path indicate observed directions of flow of avalanche material. The outlines are only a rough boundary of the path and do not indicate absolute limits for land use planning purposes. These limits can only be established by a detailed ground study of the path in question.

PHOTOGRAPHS:

Photographs were taken with a 35 mm camera from a light aircraft. Only low level oblique photographs were taken. Each path is outlined on the photograph and numbered.

AVALANCHE SUMMARY SHEETS:

Path name(s): The common name or names currently used are given. Where more than one name is currently used, all are included.

Path reference number: All paths have been cataloged with a reference number which allows it to be placed in a computer for easy retrieval. The first three digits signify the station. The remaining three refer to the avalanche path. (A station number is a National Forest Service classification number for a highway, mine, or a town. A single station may include more than one zone).

Zone: A zone is a region of geographic similarity; for example the deep valley from Silverton to Gladstone (Cement Creek) is considered a single zone.

Area: This category groups paths with similar release characteristics.

Map number: Each map in the atlas is numbered. This number appears on all avalanche summary sheets to which it applies.

Photograph number: Each photograph is numbered. This number appears on all avalanche summary sheets to which it applies.

Specifications:

Elevations and vertical fall: Elevations and vertical fall are taken directly from 1:24,000 scale maps.

Path lengths: Path lengths are computed as the sum of the individually calculated lengths for each of the three segments of the avalanche path.

Number of starting zones: The number of starting zones are obtained from maps and field observations. In cases where the number of starting zones is difficult to obtain due to the complexity of terrain the term multiple is used.

Starting zone: The starting zone is the section of the path where the initial rupture of the snowpack occurs and the avalanche begins its downward course.

Track: The track is that section of the path that funnels or guides the mass of falling snow from the starting zone to the runout zone.

Runout zone: The runout zone is the section of the path where an avalanche comes to rest. This is the hazard zone principally because it is frequently characterized by valley bottom slopes which provide some of the few areas in mountains that have slopes gentle enough for construction purposes.

Slope, track, and runout angles: The angles for the starting, track, and runout zones were all calculated from map data and measurements taken from the maps by a scaled ruler.

Acreages: Acreages were calculated from data taken from maps by ruler.

Mean widths: Mean widths were measured on the maps.

Tree line: The tree line data were obtained from maps and field observations. The letter (B) indicates below timberline; (A) indicates above timberline.

Terrain and vegetation cover: Subjective descriptions of the terrain and vegetation of the paths are given including topographic features, vegetation cover and location.

HISTORY:

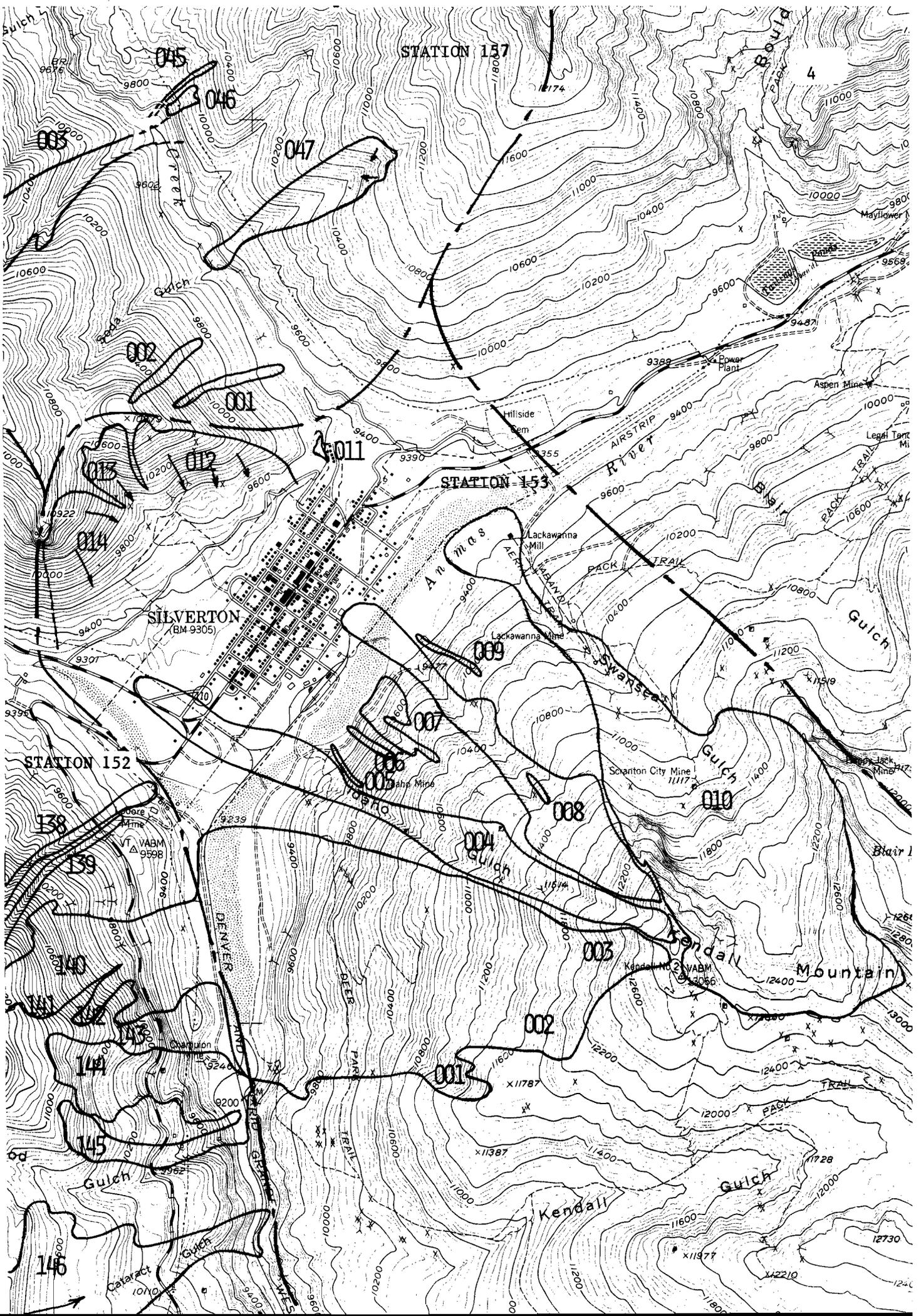
The history of each avalanche path is described in the following three categories:

- I. Historical data for the period 1879-1938 (B. Armstrong, 1976, Century of Struggle Against Snow - A History of Avalanche Hazard in San Juan County, Colorado.)
- II. Data collected by the Colorado Highway Department for period 1951-1971
Data obtained from personal communications with Louis Dalla, Durango, Colorado; Herman Dalla, Silverton, Colorado; and James Bell, Silverton, Colorado, for period 1938-1971.
- III. Data collected by the San Juan Avalanche Project, INSTITUTE OF ARCTIC AND ALPINE RESEARCH, University of Colorado, for period 1971-1975.

SECTION I

Town of Silverton

Avalanche paths: 153001 - 153014



STATION 157

SILVERTON
(BM 9305)

STATION 153

STATION 152

Kendall Mountain

Kendall

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Avalanche Summary Sheet

PATH NAME ('s): Denver

Path Reference Number: 153001 Zone: III Area: 3

Map Number: 1,4 Photograph Number: 40,41

SPECIFICATIONS:

Top Elev.: 11600' Bottom Elev.: 9200' Vertical Fall: 2400'

Length of Path: 4925' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>31°</u>	<u>16°</u>
Area Acres	<u>6</u>	Mean Width <u>1000'</u>	Area Acres <u>17</u>
		Length <u>3138'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope with rock outcrops and talus

Track: Narrow shallow depression, light small coniferous, willows and grass

Runout Zone: Open slope, rock outcrops, willows and grass

HISTORY: III. events: 2
highway: 0
full-track: 2

Avalanche Summary Sheet

PATH NAME ('s): Rio Grande

Path Reference Number: 153002 Zone: III Area: 3

Map Number: 1,4 Photograph Number: 40,41

SPECIFICATIONS:

Top Elev.: 13000' Bottom Elev.: 9200' Vertical Fall: 3800'

Length of Path: 7965' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>27°</u>	<u>16°</u>
Area Acres	<u>7</u>	Mean Width <u>1000'</u>	Area Acres <u>25</u>
		Length <u>5367'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad shallow depression, large smooth rock outcrops, talus and grass

Track: Shallow depression, small rock outcrops, light to moderate small coniferous, aspen, willows and grass

Runout Zone: Broad open slope, cliff bands, light coniferous and grass with talus slope below

HISTORY: III. events: 5
 highway: 0
 full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Western, Sorge's, Washington

Path Reference Number: 153003 Zone: III Area: 3

Map Number: 1,4 Photograph Number: 40,41

SPECIFICATIONS:

Top Elev.: 13000' Bottom Elev.: 9200' Vertical Fall: 3800'

Length of Path: 8407' Number of Starting Zones: 3

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>39°</u>		<u>32°</u>		<u>17°</u>
Area Acres	<u>7</u>	Mean Width	<u>1000'</u>	Area Acres	<u>48</u>
		Length	<u>4579'</u>		
Tree Line	<u>A</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope with 2 shallow depressions, large rock outcrops, talus, with willows, grass and small rock outcrops below

Track: Upper portion: broad open slope, divided by strip of moderate to heavy coniferous, small rock outcrops, willows, light small coniferous and grass. Lower portion: separated from upper portion by large smooth rock outcrop, broad open slope, large rock outcrops, moderate coniferous and aspen, talus

Runout Zone: Broad open slope, talus and willows

- HISTORY:**
- I. March, 1906, debris deposited at base of Sultan Mountain
 - II. mid 1940's, removed wide swath of heavy coniferous trees
January, 1952, observed to have run
winter of 1961-1962, removed large stand of aspen
 - III. events: 4
highway: 0
full-track: 0

Avalanche Summary Sheet

PATH NAME ('s): Idaho Gulch

Path Reference Number: 153004 Zone: III Area: 3

Map Number: 1,4 Photograph Number: 40,41

SPECIFICATIONS:

Top Elev.: 13000' Bottom Elev.: 9240' Vertical Fall: 3760'

Length of Path: 9754' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>49°</u>	<u>27°</u>	<u>11°</u>
Area Acres	<u>3</u>	Mean Width <u>400'</u>	Area Acres <u>55</u>
		Length <u>6083'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: V-shaped depression with large rock ridges, outcrops and talus with smaller rock outcrops, talus and grass below

Track: Upper portion: broad open slope, small rock outcrops, talus, light small coniferous, willows and grass; lower portion: narrowing to open slope containing narrow steep-sided gully, talus, small rock outcrops, light small coniferous, aspen, willows and grass

Runout Zone: Broad open fan, willows, grass and light small boulders

- HISTORY: I. 1879, ran to the level with Blair Street
 February, 1891, ran to the level with Blair Street
 January, 1914, ran to main railroad track
 1913-1914, destroyed the bleachers at the ballpark by the highway
- II. observed running January, 1952
- III. events: 6
 highway: 0
 full-track: 2



Avalanche Summary Sheet

PATH NAME ('s): 8th Street

Path Reference Number: 153005 Zone: III Area: 2

Map Number: 1,4 Photograph Number: 40,41

SPECIFICATIONS:

Top Elev.: 9800' Bottom Elev.: 9300' Vertical Fall: 500'

Length of Path: 962' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>45°</u>	<u>22°</u>
Area Acres	<u>.25</u>	Mean Width <u>50'</u>	Area Acres <u>.3</u>
		Length <u>424'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, talus, moderate coniferous and grass

Track: Shallow depression, talus, light small coniferous

Runout Zone: Broad open slope, talus and willows

HISTORY: III. events: 1
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Steeple

Path Reference Number: 153007 Zone: III Area: 2

Map Number: 1,4 Photograph Number: 40,41

SPECIFICATIONS:

Top Elev.: 10300' Bottom Elev.: 9300' Vertical Fall: 1000'

Length of Path: 1707' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>41°</u>	<u>22°</u>
Area Acres	<u>2</u>	Mean Width <u>700'</u>	Area Acres <u>5</u>
		Length <u>922'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, light to moderate coniferous and aspen, grass and bare ground

Track: Broad open slope, light to moderate coniferous and aspen, grass and bare ground

Runout Zone: Broad open slope, bare ground, small rock outcrops and willows below

HISTORY:

Avalanche Summary Sheet

PATH NAME ('s): Arcade, Kendall Mtn., Green Ribbon, Green Wave

Path Reference Number: 153008 Zone: III Area: 2

Map Number: 1,4 Photograph Number: 40,41

SPECIFICATIONS:

Top Elev.: 12800' Bottom Elev.: 9280' Vertical Fall: 3520'

Length of Path: 7765' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39^o</u>	<u>29^o</u>	<u>11^o</u>
Area Acres	<u>4</u>	Mean Width <u>300'</u>	Area Acres <u>21</u>
		Length <u>5731'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, large rock outcrops and talus

Track: Narrow shallow v-shaped depression, moderate small coniferous and willows and bare ground

Runout Zone: Irregular hummocky terrain, light small coniferous and willows, grass and bare ground

- HISTORY: I. March, 1906, ran to junction of Animas River and Cement Creek and destroyed 3 unoccupied cabins
 April 1926, ran to railroad tracks
- II. 1942, crossed Cement Creek and deposited debris at Tomasi's fence on Cement Street, 1300 feet across the level terrain
- January, 1952, ran to end of telephone line between junction of Cement Creek and Animas River
- III. events: 4
 highway: 0
 full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Crystal Gulch

Path Reference Number: 153009 Zone: III Area: 2

Map Number: 4 Photograph Number: 40,41

SPECIFICATIONS:

Top Elev.: 10100' Bottom Elev.: 9300' Vertical Fall: 800'

Length of Path: 1482' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>50°</u>	<u>41°</u>	<u>28°</u>
Area Acres	<u>.5</u>	Mean Width <u>50'</u>	Area Acres <u>.1</u>
		Length <u>922'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow depression in open slope, moderate coniferous and bare ground

Track: Shallow depression, light coniferous and bare ground

Runout Zone: Broad open to convex slope, grass and bare ground

HISTORY:

Avalanche Summary Sheet

PATH NAME ('s): Swansea Gulch, Lakawanna Slide

Path Reference Number: 153010 Zone: III Area: 2

Map Number: 4 Photograph Number: 40,41

SPECIFICATIONS:

Top Elev.: 13200' Bottom Elev.: 9300' Vertical Fall: 3900'

Length of Path: 11670' Number of Starting Zones: Multiple

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>45°</u>		<u>22°</u>		<u>18°</u>
Area Acres	<u>159</u>	Mean Width	<u>500'</u>	Area Acres	<u>29</u>
		Length	<u>4524'</u>		
Tree Line	<u>A</u>		<u>B</u>		<u>B</u>

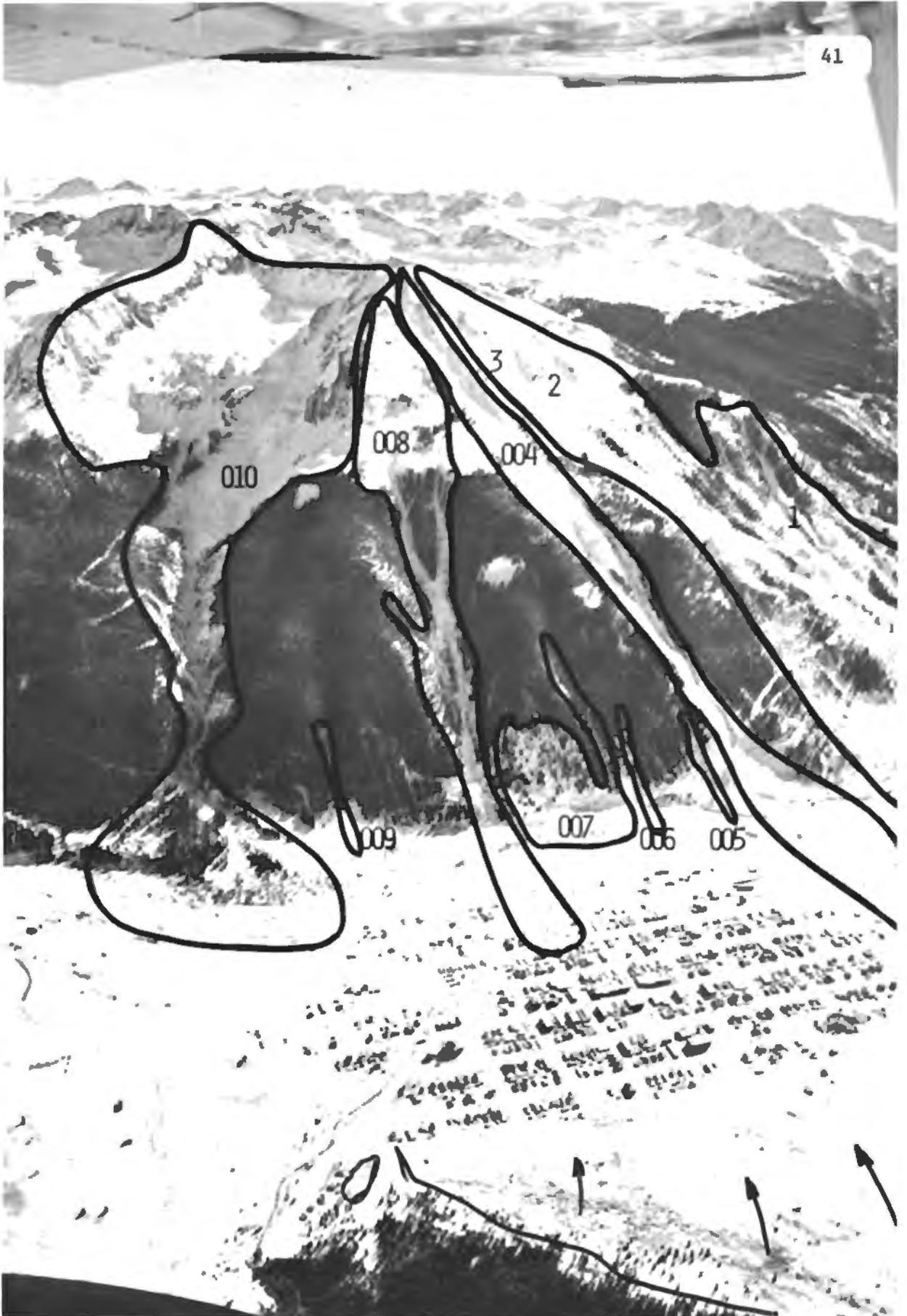
TERRAIN AND VEGETATION COVER:

Starting Zone: Broad cirque basin surrounded by cliffs with rock glaciers, talus and boulder fields

Track: V-shaped depression, talus, rock outcrops; lower track: very light coniferous

Runout Zone: Broad open slope, talus, moderate coniferous and grass with aspen and willows below

HISTORY: I. "has run to valley floor twice since 1900, crossed the Animas River once" (L. Dalla)
1932, observed to have run



Avalanche Summary Sheet

PATH NAME ('s): Bertramsville

Path Reference Number: 153011 Zone: III Area: 1

Map Number: 1,4 Photograph Number: 42

SPECIFICATIONS:

Top Elev.: 9600' Bottom Elev.: 9400' Vertical Fall: 200'

Length of Path: 169 Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>--</u>	<u>0</u>
Area Acres	<u>.25</u>	Mean Width <u>400'</u>	Area Acres <u>.25</u>
		Length <u>--</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, grass and talus.

Track: broad open slope with grass.

Runout Zone: Flat open ground with grass.

HISTORY: II. January, 1952, ran to sheds, had never been observed to run before

III. events: 1

Avalanche Summary Sheet

PATH NAME ('s): Pabst

Path Reference Number: 153012 Zone: III Area: 1

Map Number: 1,4 Photograph Number: 42

SPECIFICATIONS:

Top Elev.: 10100' Bottom Elev.: 9300' Vertical Fall: 800'

Length of Path: 3105' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>36°</u>	<u>37°</u>	<u>17°</u>
Area Acres	<u>8</u>	Mean Width <u>1800'</u>	Area Acres <u>46</u>
		Length <u>1000'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope with shallow depression, small rock outcrops, very light coniferous and aspen and grass

Track: Open slope with broad shallow depression, rock outcrops, talus, grass, light coniferous and aspen

Runout Zone: Broad open slope, small grassy hummocks, light boulders

HISTORY:

Avalanche Summary Sheet

PATH NAME ('s): Shrine

Path Reference Number: 153013 Zone: III Area: 1

Map Number: 1,4 Photograph Number: 42

SPECIFICATIONS:

Top Elev.: 10800' Bottom Elev.: 9300' Vertical Fall: 1500'

Length of Path: 3808' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>37°</u>	<u>17°</u>
Area Acres	<u>6</u>	Mean Width <u>300'</u>	Area Acres <u>31</u>
		Length <u>1000'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad v-shaped depression, grass, talus, light aspen and coniferous

Track: V-shaped, talus, grass and bare ground

Runout Zone: Broad open slope, small grassy hummocks, light boulders

HISTORY:

Avalanche Summary Sheet

PATH NAME ('s): Blue Ribbon

Path Reference Number: 153014 Zone: III Area: 1

Map Number: 1,4 Photograph Number: 42

SPECIFICATIONS:

Top Elev.: 10800' Bottom Elev.: 9300' Vertical Fall: 1500'

Length of Path: 3534' Number of Starting Zones: multiple

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>42°</u>		<u>37°</u>		<u>22°</u>
Area Acres	<u>9</u>	Mean Width	<u>2000'</u>	Area Acres	<u>40</u>
		Length	<u>1000'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

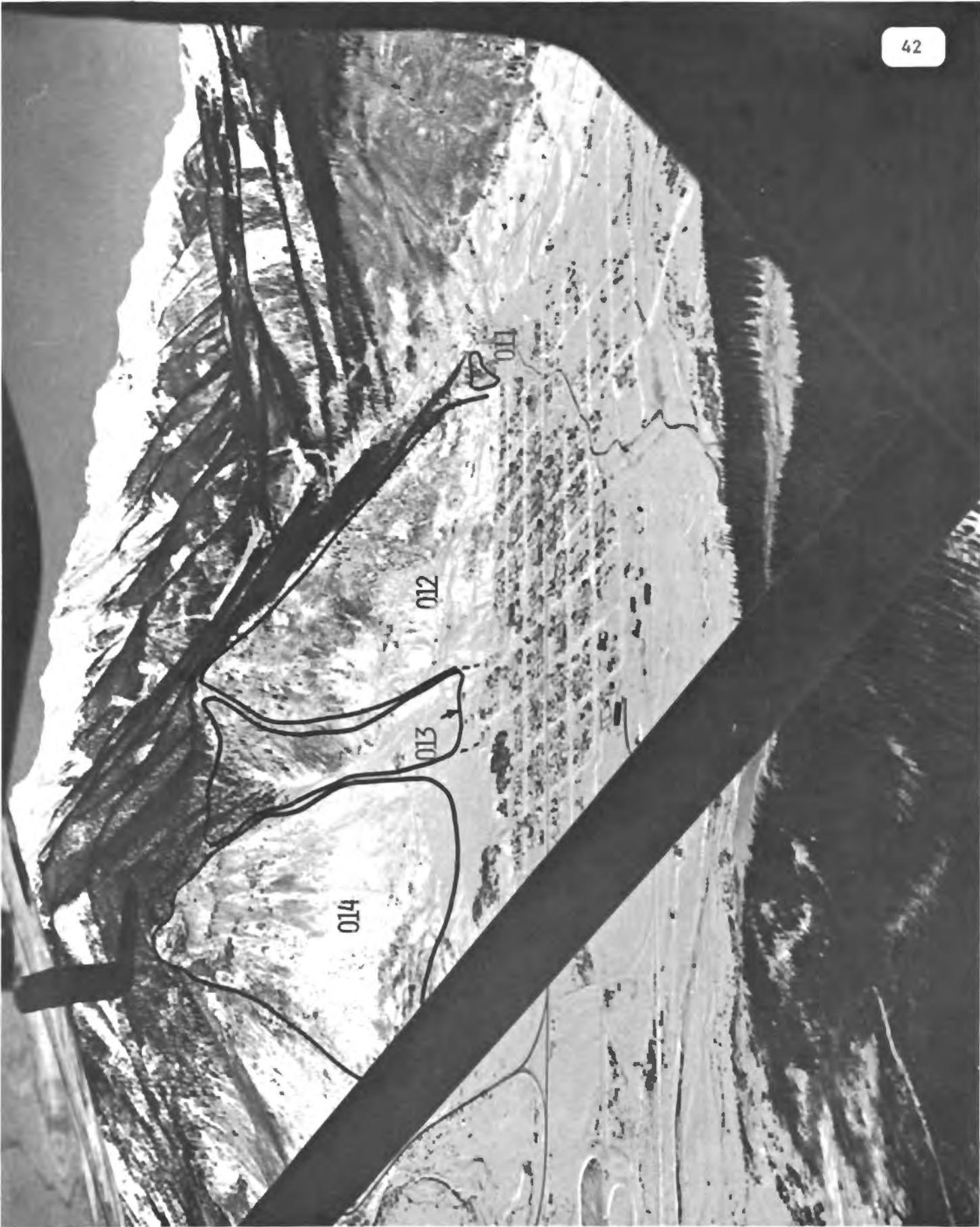
TERRAIN AND VEGETATION COVER:

Starting Zone: Broad convex slope, bands of rugged rock outcrops interspersed with shallow gullies, moderate to heavy aspen and bare ground

Track: Broad convex slope, grass, talus, moderate aspen and bare ground

Runout Zone: Broad convex slope, grassy hummocks, light aspen and light boulders

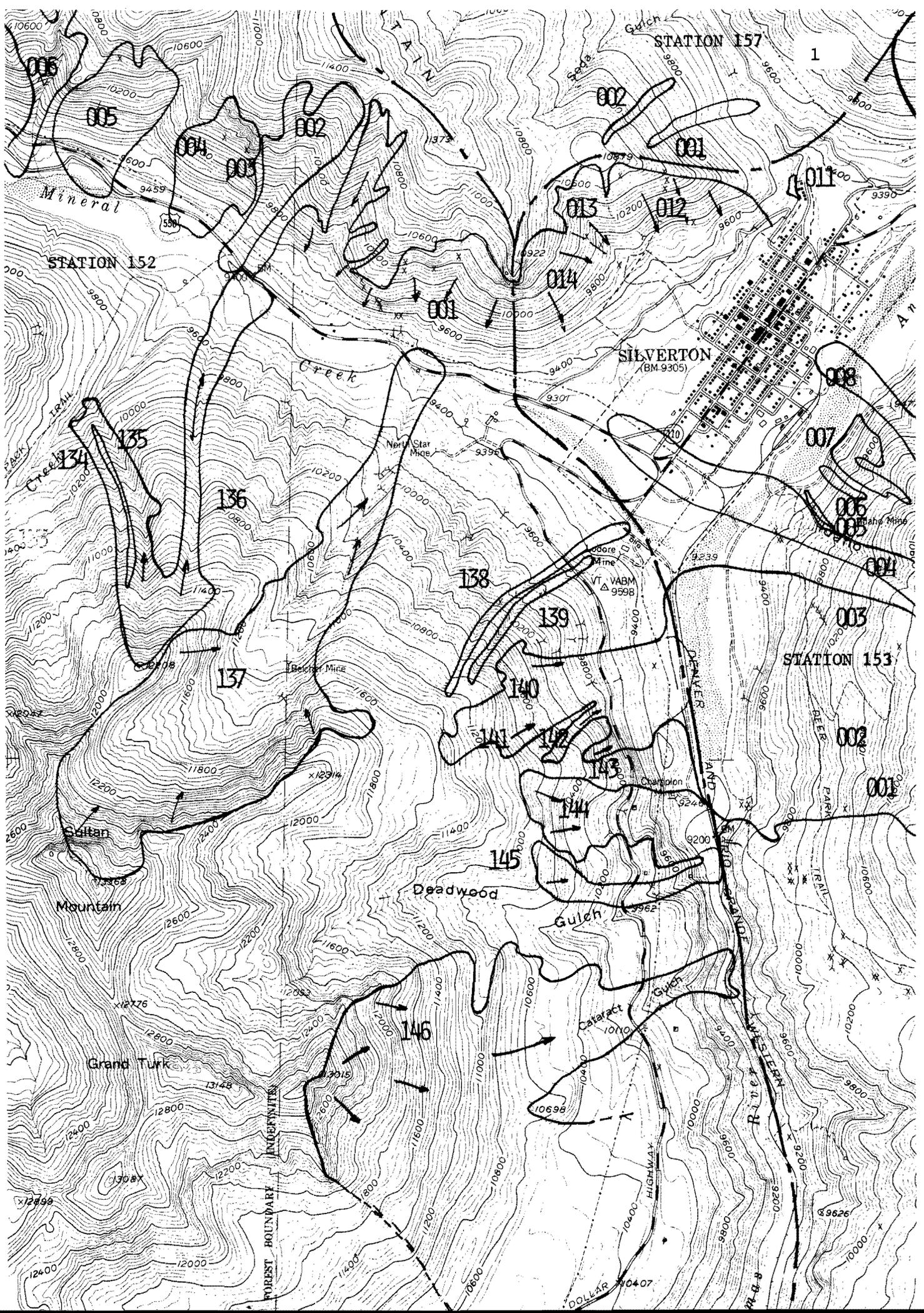
HISTORY:



SECTION II

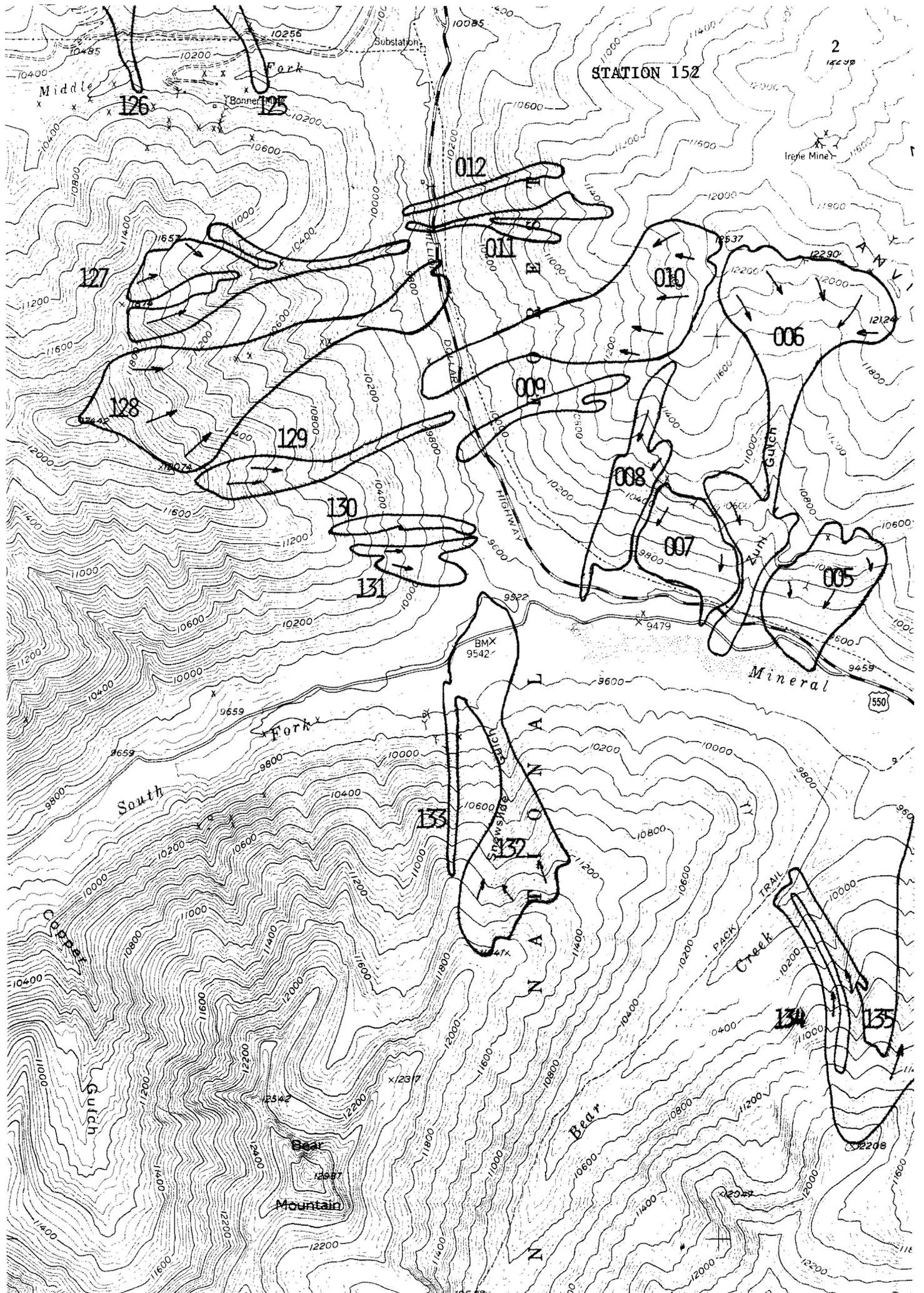
Silverton to Red Mountain Pass
east side of U.S. Highway 550

Avalanche paths: 152001 - 152039



STATION 152

2
14238



Avalanche Summary Sheet

PATH NAME ('s): Anvil

Path Reference Number: 152001 Zone: IV Area: 15

Map Number: 1 Photograph Number: 1,2

SPECIFICATIONS:

Top Elev.: 10800' Bottom Elev.: 9360' Vertical Fall: 1440'

Length of Path: 2799' Number of Starting Zones: 4

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>39°</u>		<u>25°</u>		<u>10-25°</u>
Area Acres	<u>35</u>	Mean Width	<u>2000'</u>	Area Acres	<u>36</u>
		Length	<u>1432'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, scree and some large rock outcrops,
light aspen

Track: Open slope, scree and grass

Runout Zone: Open slope, medium vegetation, aspen

HISTORY: III. events: 11
highway: 0
full-track: 4

Avalanche Summary Sheet

PATH NAME ('s): Water Gauge

Path Reference Number: 152002 Zone: IV Area: 15

Map Number: 1 Photograph Number: 1,2

SPECIFICATIONS:

Top Elev.: 11400' Bottom Elev.: 9400' Vertical Fall: 2000'

Length of Path: 4206' Number of Starting Zones: 2

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>34^o</u>		<u>31^o</u>		<u>17^o</u>
Area Acres	<u>25</u>	Mean Width	<u>600</u>	Area Acres	<u>16</u>
		Length	<u>1972'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Multiple starting zones: broad open slope, scree and small rock outcrops; moderate to heavy coniferous trees in northern portion

Track: Gully changing to open slope, scree, small light to moderate aspen and coniferous

Runout Zone: Open slope, moderate to heavy aspen and coniferous and heavy willows

HISTORY: II. crossed highway: 2

III. events: 10
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Old South Mineral Road

Path Reference Number: 152003 Zone: IV Area: 15

Map Number: 1 Photograph Number: 1,2,3

SPECIFICATIONS:

Top Elev.: 10600' Bottom Elev.: 9440' Vertical Fall: 1160'

Length of Path: 2141' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>41°</u>	<u>63°</u>	<u>15°</u>
Area Acres	<u>11</u>	Mean Width <u>500'</u>	Area Acres <u>8.5</u>
		Length <u>1118'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

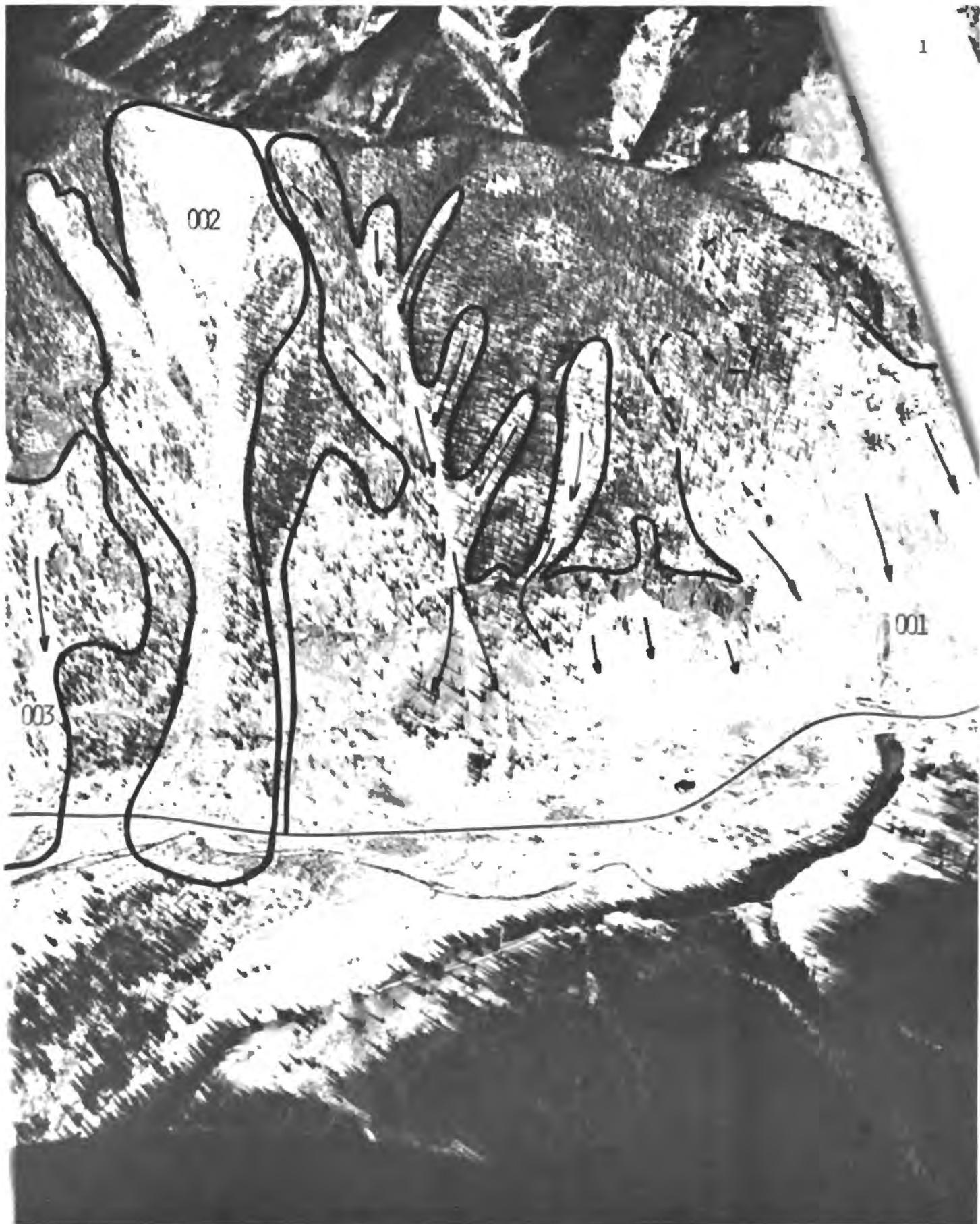
Starting Zone: Cliff, large rock outcrop, talus

Track: Open slope, scree, light coniferous

Runout Zone: Open slope, scree, light coniferous and aspen and heavy willows

HISTORY: II. crossed highway: 1

III. events: 13
highway: 0
full-track: 2



Avalanche Summary Sheet

PATH NAME ('s): Pit

Path Reference Number: 152004 Zone: IV Area: 15

Map Number: 1 Photograph Number: 2,3

SPECIFICATIONS:

Top Elev.: 10800' Bottom Elev.: 9440' Vertical Fall: 1360'

Length of Path: 2672' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>40°</u>	<u>50°</u>	<u>15°</u>
Area Acres	<u>11</u>	Mean Width <u>500'</u>	Area Acres <u>6</u>
		Length <u>1562'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Cliff, large rock outcrop, talus

Track: Narrow, incised gully, bare ground and scree

Runout Zone: Broad open slope, light coniferous and heavy willows

HISTORY: II. crossed highway: 11

III. events: 11
highway: 0
full-track: 3



Avalanche Summary Sheet

PATH NAME ('s): Thirty

Path Reference Number: 152005 Zone: IV Area: 15

Map Number: 1,2 Photograph Number: 3,4

SPECIFICATIONS:

Top Elev.: 10600' Bottom Elev.: 9480' Vertical Fall: 1120'

Length of Path: 1953' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>40°</u>	<u>15°</u>
Area Acres	<u>28</u>	Mean Width <u>2000'</u>	Area Acres <u>37</u>
		Length <u>781'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

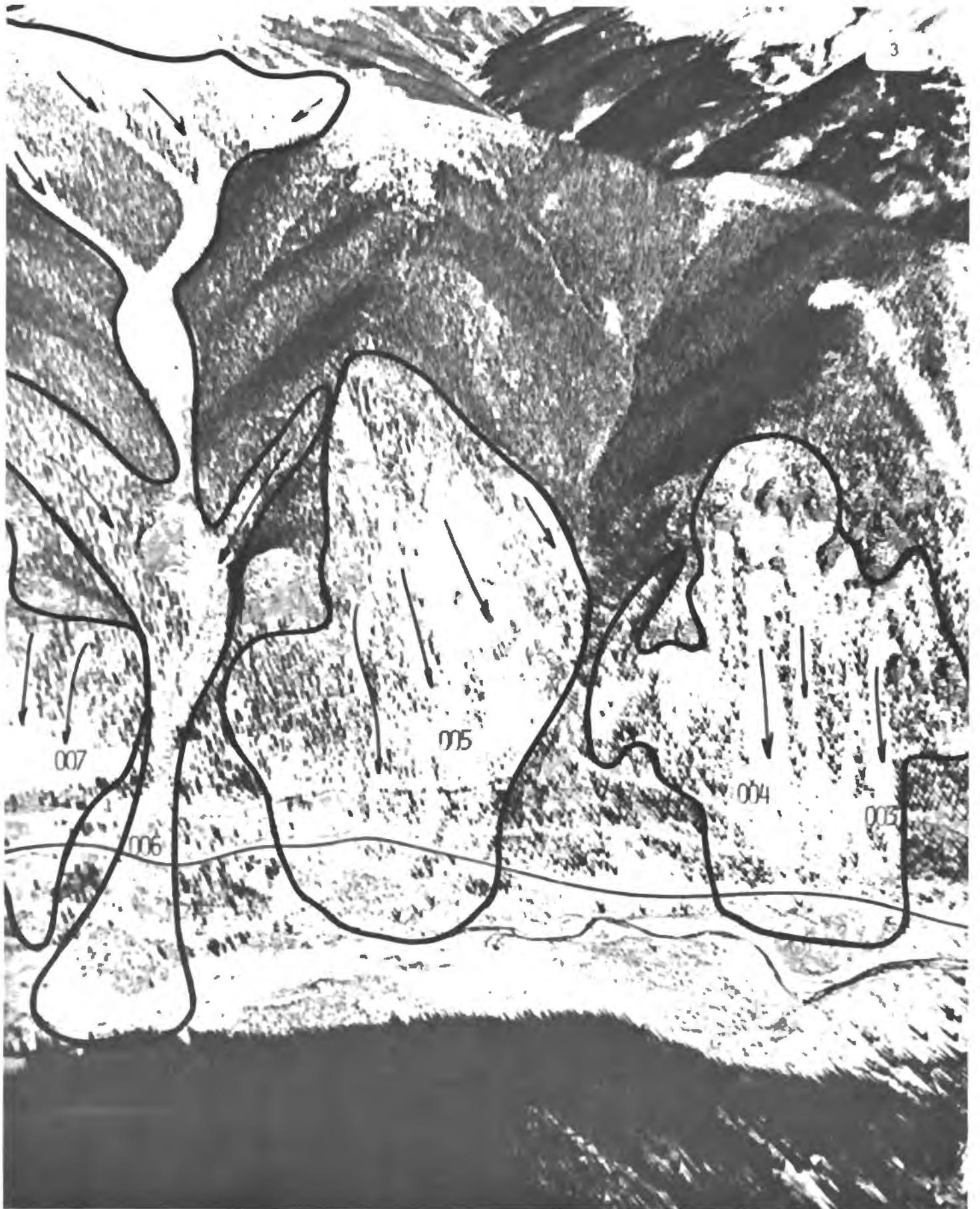
TERRAIN AND VEGETATION COVER:

Starting Zone: Broad, v-shaped depression, cliffs, rock outcrops, talus and moderate coniferous

Track: Broad, v-shaped depression, talus, heavy aspen and light coniferous

Runout Zone: Broad open slope, moderate aspen and coniferous

HISTORY: III. events: 4
highway: 0
full-track: 0



Avalanche Summary Sheet

PATH NAME ('s): Zuni

Path Reference Number: 152006 Zone: IV Area: 15

Map Number: 1,2 Photograph Number: 3,4

SPECIFICATIONS:

Top Elev.: 12400' Bottom Elev.: 9480' Vertical Fall: 2920'

Length of Path: 7585' Number of Starting Zones: 6

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>34°</u>		<u>22°</u>		<u>12°</u>
Area Acres	<u>57</u>	Mean Width	<u>300'</u>	Area Acres	<u>11</u>
		Length	<u>5385'</u>		
Tree Line	<u>A</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad shallow depressions, talus just below ridge line, few small rock outcrops, grass and light coniferous below

Track: V-shaped depression, large rock outcrops, moderate aspen and coniferous

Runout Zone: Broad open slope, moderate to heavy aspen and coniferous

HISTORY: I. winter, 1932, crossed highway

II. January, 1952, covered highway 8-10' deep, 200' length (Silverton Standard)

III. events: 2
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Hopi

Path Reference Number: 152007 Zone: IV Area: 15

Map Number: 2 Photograph Number: 3,4

SPECIFICATIONS:

Top Elev.: 10400' Bottom Elev.: 9560' Vertical Fall: 840'

Length of Path: 2169' Number of Starting Zones: 2

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>31°</u>		<u>37°</u>		<u>22°</u>
Area Acres	<u>9</u>	Mean Width	<u>800'</u>	Area Acres	<u>12</u>
		Length	<u>500'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, large rock outcrops, talus, light coniferous with cliffs below

Track: Open slope, rock outcrops, large boulders, talus, light to moderate coniferous and aspen

Runout Zone: Broad open slope, light coniferous, moderate to heavy aspen and willows

HISTORY: III. events: 6
highway: 0
full-track: 2

Avalanche Summary Sheet

PATH NAME ('s): Camp

Path Reference Number: 152008 Zone: IV Area: 15

Map Number: 2 Photograph Number: 4,5

SPECIFICATIONS:

Top Elev.: 11800' Bottom Elev.: 9450' Vertical Fall: 2200'

Length of Path: 5189' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>30°</u>	<u>15°</u>
Area Acres	<u>17</u>	Mean Width <u>500'</u>	Area Acres <u>40</u>
		Length <u>2778'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Three broad depressions, rock outcrops, talus and light coniferous

Track: North: shallow depression, very small light coniferous and grass
South: open slope, rock outcrops, talus, light small coniferous

Runout Zone: Open slope, moderate to heavy coniferous, aspen and grass

HISTORY: III. events: 6
highway: 0
full-track: 2



Avalanche Summary Sheet

PATH NAME ('s): Lower Cement Fill

Path Reference Number: 152009 Zone: IV Area: 14

Map Number: 2 Photograph Number: 5

SPECIFICATIONS:

Top Elev.: 11400' Bottom Elev.: 9600' Vertical Fall: 1800'

Length of Path: 3672' Number of Starting Zones: 2

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>34°</u>		<u>34°</u>		<u>25°</u>
Area Acres	<u>10</u>	Mean Width	<u>300'</u>	Area Acres	<u>13</u>
		Length	<u>1803'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, moderate coniferous

Track: Broad gully, moderate coniferous and aspen

Runout Zone: Open slope, moderate to heavy coniferous and aspen and grass

HISTORY: II. crossed highway: 2

III. events: 6
highway: 0
full-track: 0

Avalanche Summary Sheet

PATH NAME ('s): Cement Fill

Path Reference Number: 152010 Zone: IV Area: 14

Map Number: 2 Photograph Number: 5,6,7

SPECIFICATIONS:

Top Elev.: 12400' Bottom Elev.: 9640' Vertical Fall: 2760'

Length of Path: 6333' Number of Starting Zones: 5

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>24°</u>	<u>28°</u>	<u>21°</u>
Area Acres	<u>92</u>	Mean Width <u>400'</u>	Area Acres <u>30</u>
		Length <u>2370'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope containing 2 separate broad v-shaped basins

Upper portion: talus, small rock outcrops

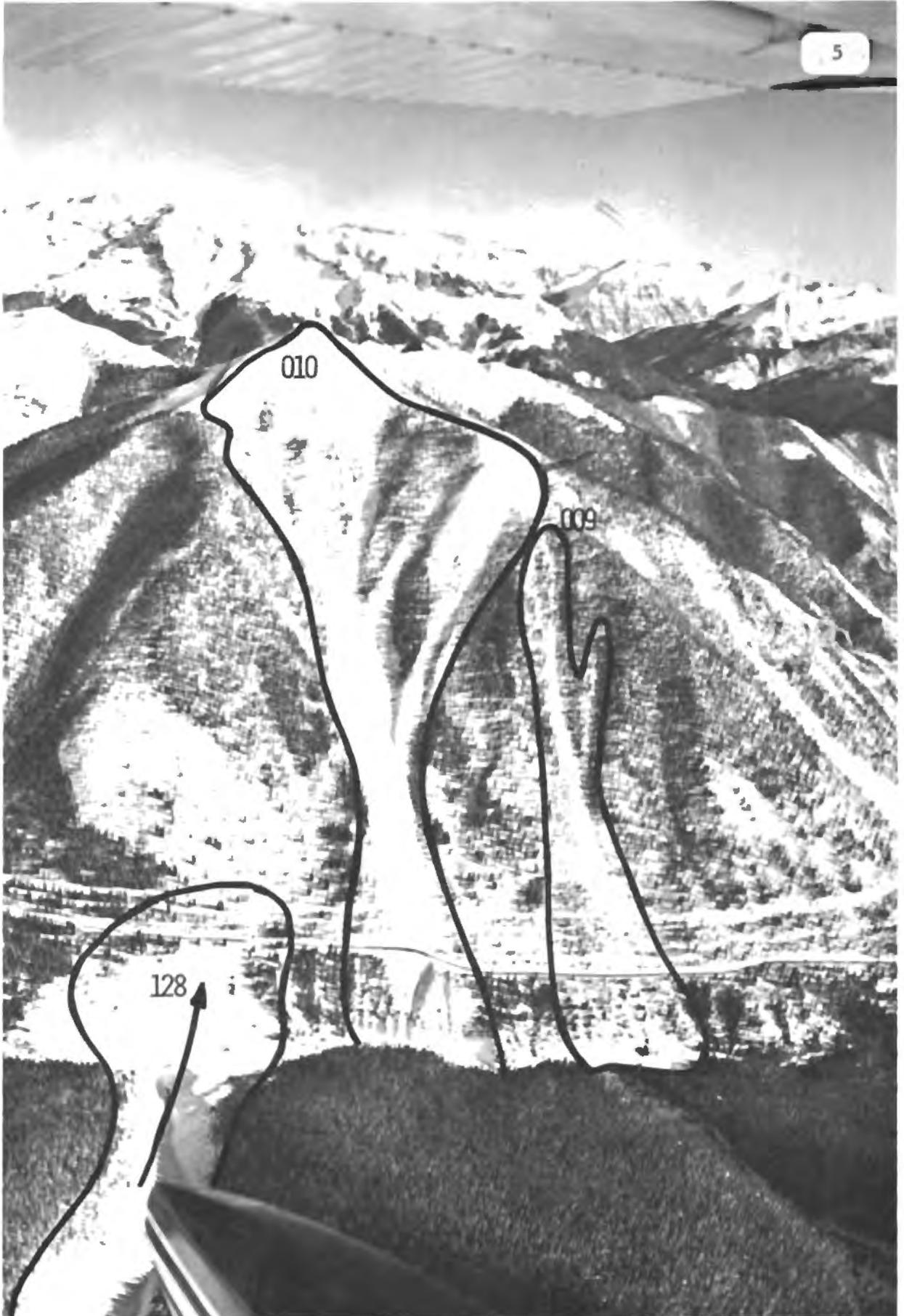
Lower portion: moderate coniferous and grass

Track: Broad open slope, small coniferous and grass

Runout Zone: narrowing gully, small coniferous, bare ground, light willows

HISTORY: II. crossed highway: 17

III. events: 12
highway: 3
full-track: 4



Avalanche Summary Sheet

PATH NAME ('s): Barton South

Path Reference Number: 152011 Zone: IV Area: 14

Map Number: 2 Photograph Number: 5,6,7

SPECIFICATIONS:

Top Elev.: 11600' Bottom Elev.: 10000' Vertical Fall: 1600'

Length of Path: 3578' Number of Starting Zones: 2

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>27°</u>		<u>25°</u>		<u>8°</u>
Area Acres	<u>8</u>	Mean Width	<u>100'</u>	Area Acres	<u>1.6</u>
		Length	<u>2102'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Two narrow v-shaped gullies, moderate coniferous

Track: Narrow v-shaped gully, light willows

Runout Zone: bed of Mineral Creek, bare ground

HISTORY: III. events: 1
highway: 0
full-track: 0

Avalanche Summary Sheet

PATH NAME ('s): Barton North

Path Reference Number: 152012 Zone: IV Area: 14

Map Number: 2 Photograph Number: 6,7

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 9800' Vertical Fall: 1400'

Length of Path: 2953' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34^o</u>	<u>27^o</u>	<u>27^o</u>
Area Acres	<u>3</u>	Mean Width <u>100'</u>	Area Acres <u>1.5</u>
		Length <u>1565'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

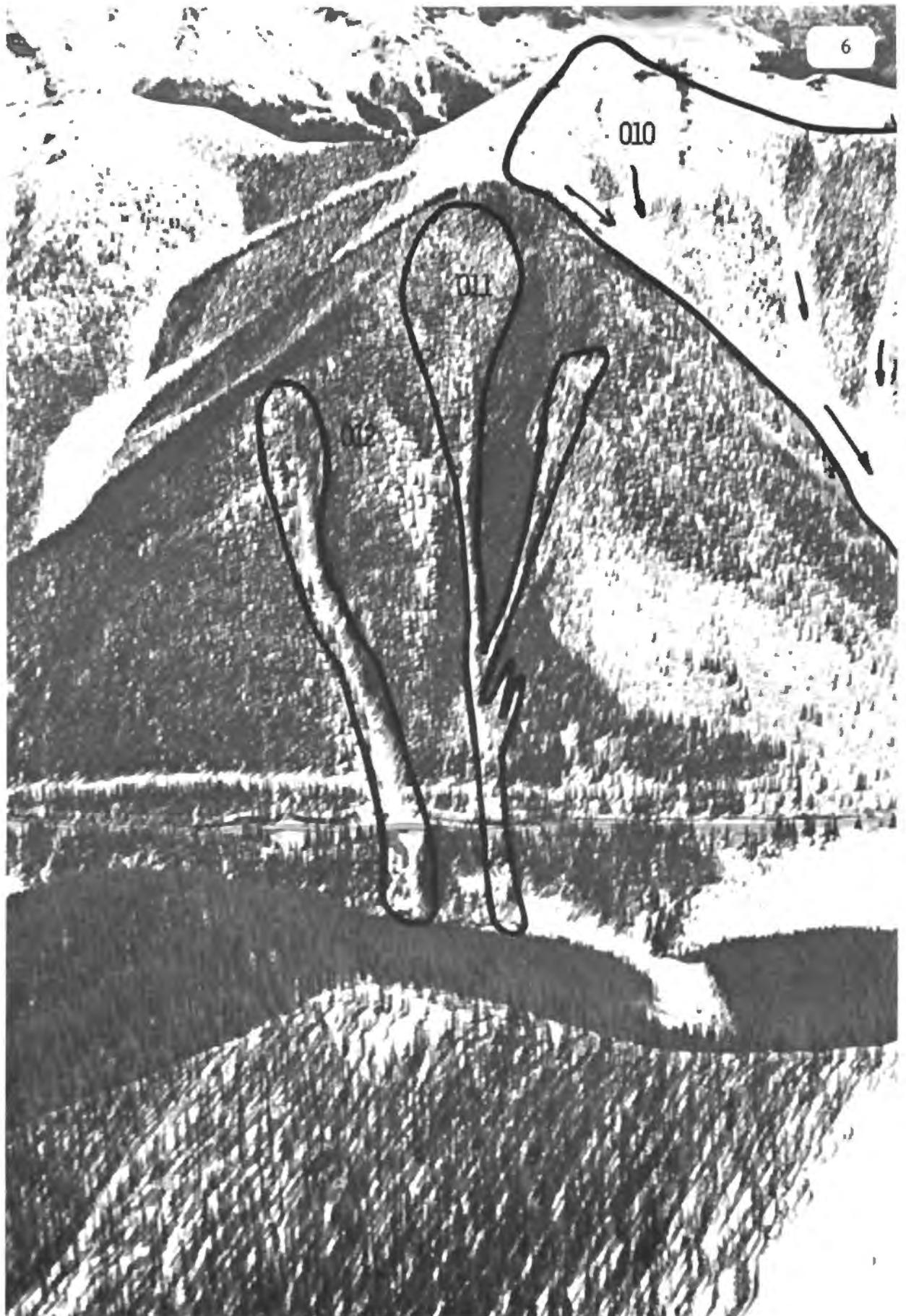
Starting Zone:

Track: V-shaped gully, small light aspen and coniferous, grass and bare ground

Runout Zone: Bed of Mineral Creek, grass and bare ground

HISTORY: II. crossed highway: 6

III. events: 2
highway: 0
full-track 0



Avalanche Summary Sheet

PATH NAME ('s): Blackburn

Path Reference Number: 152013 Zone: IV Area: 12

Map Number: 3 Photograph Number: 7

SPECIFICATIONS:

Top Elev.: 10600' Bottom Elev.: 10000' Vertical Fall: 600'

Length of Path: 1166' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>22°</u>	<u>34°</u>	<u>11°</u>
Area Acres	<u>2</u>	Mean Width <u>200'</u>	Area Acres <u>2.5</u>
		Length <u>721'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, heavy coniferous

Track: Open slope, heavy coniferous

Runout Zone: Open slope, light coniferous

HISTORY: I. In late 1930's, Bill Blackburn of the highway maintenance crew was pushed off highway by this slide

II. crossed highway: 4

III. events: 3
highway: 3
full-track: 2

Avalanche Summary Sheet

PATH NAME ('s): Benny Long

Path Reference Number: 152014 Zone: IV Area: 12

Map Number: 3 Photograph Number: 7

SPECIFICATIONS:

Top Elev.: 10600' Bottom Elev.: 10000' Vertical Fall: 600'

Length of Path: 1342' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>31°</u>	<u>37°</u>	<u>18°</u>
Area Acres	<u>5</u>	Mean Width <u>1800'</u>	Area Acres <u>13</u>
		Length <u>500'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, light to moderate coniferous

Track: Broad open slope, light coniferous

Runout Zone: Broad open slope, heavy willows

HISTORY: II. crossed highway: 6

III. events: 2
highway: 2
full-track: 2



Avalanche Summary Sheet

PATH NAME ('s): Brooklyns

Path Reference Number: 152015-028 Zone: IV Area: 11

Map Number: 3 Photograph Number: 8

SPECIFICATIONS:

Top Elev.: 11400' Bottom Elev.: 10150' Vertical Fall: 1250'

Length of Path: 2200' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	--	--	--
Area Acres	<u>.25</u>	Mean Width <u>300'</u>	Area Acres <u>2.5-9.5</u>
		Length <u>500'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Steep open slopes and gullies with rock outcrops and talus.

Track: Open slopes and shallow gullies with light coniferous and talus.

Runout Zone: Broad open meadow with light coniferous, willows and grass.

- HISTORY:**
- I. spring, 1900, 3 people caught, all dug out alive
February 1933, tractor swept off highway, driver jumped out and was uninjured
 - II. crossed highway: 106
 - III. events: 321
highway: 49
full-track: 122



Avalanche Summary Sheet

PATH NAME ('s): Cemetery

Path Reference Number: 152030 Zone: IV Area: 11

Map Number: 3 Photograph Number: 8,9,10

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 10200' Vertical Fall: 1000'

Length of Path: 2417' Number of Starting Zones: 3

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>27°</u>		<u>34°</u>		<u>14°</u>
Area Acres	<u>21</u>	Mean Width	<u>900'</u>	Area Acres	<u>13</u>
		Length	<u>721'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

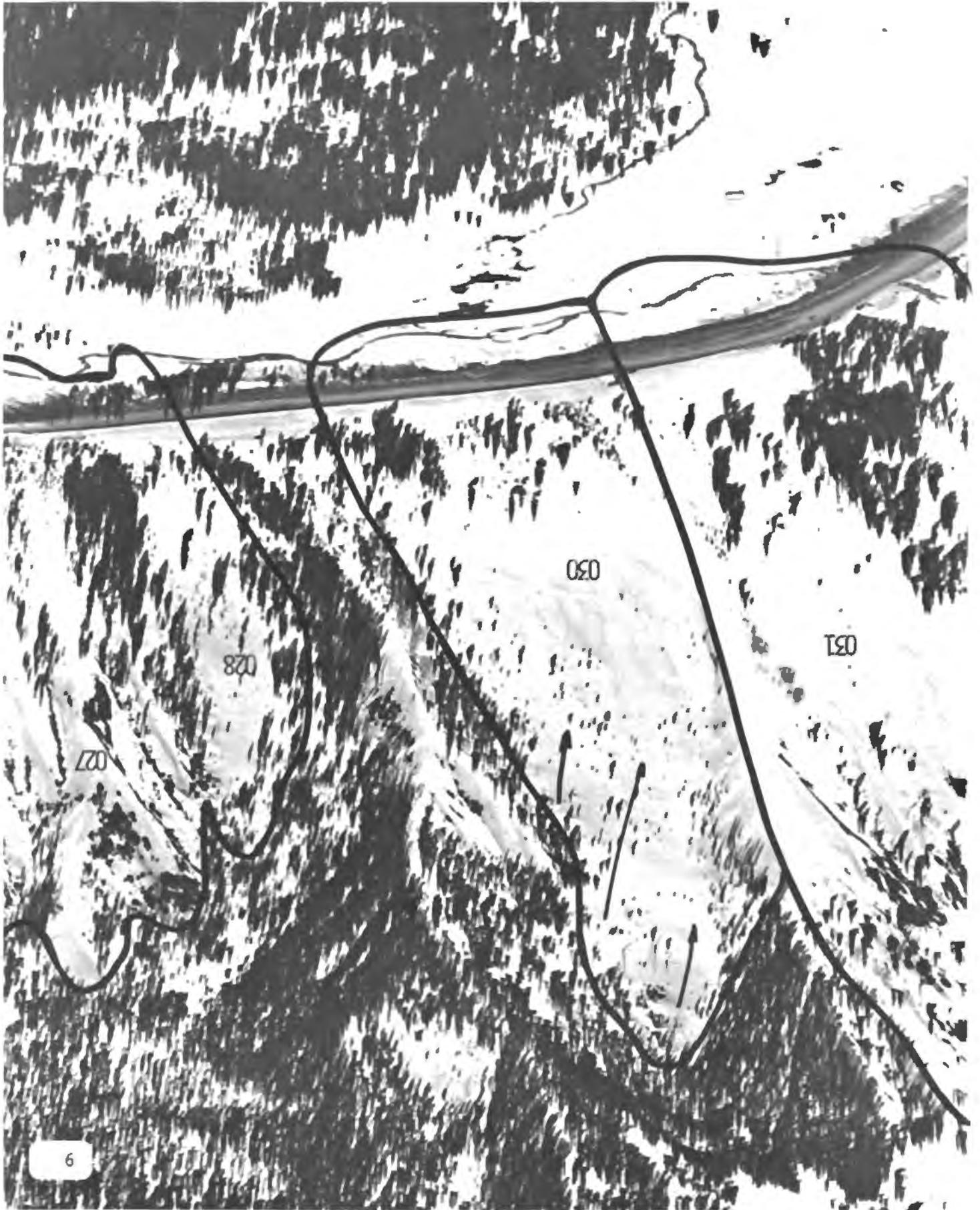
Starting Zone: Narrow open slope, rock outcrop and small cliffs, light coniferous and grass

Track: Broadening open slope, very light small coniferous and grass

Runout Zone: Broad open slope. Upper portion: moderate coniferous;
Lower portion: willows

HISTORY: II. crossed highway: 6

III. events: 7
highway: 0
full-track: 3



Avalanche Summary Sheet

PATH NAME ('s): First Twin Crossing

Path Reference Number: 152031 Zone: IV Area: 11

Map Number: 3 Photograph Number: 9,10

SPECIFICATIONS:

Top Elev.: 12100' Bottom Elev.: 10200' Vertical Fall: 1900'

Length of Path: 2983' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>38°</u>	<u>28°</u>	<u>11°</u>
Area Acres	<u>15</u>	Mean Width <u>800'</u>	Area Acres <u>7</u>
		Length <u>2945'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope with slight depressions and cliffs, light coniferous and grass

Track: Broad open slope, light coniferous and grass

Runout Zone: Broad open slope, willows

HISTORY: II. crossed highway: 4

III. events: 20
highway: 0
full-track: 4

Avalanche Summary Sheet

PATH NAME ('s): Second Twin Crossing

Path Reference Number: 152032 Zone: IV Area: 11

Map Number: 3 Photograph Number: 10

SPECIFICATIONS:

Top Elev.: 12000' Bottom Elev.: 10200' Vertical Fall: 1800'

Length of Path: 4386' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>38°</u>	<u>32°</u>	<u>11°</u>
Area Acres	<u>12</u>	Mean Width <u>200'</u>	Area Acres <u>12</u>
		Length <u>1533'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope with slight depressions and cliffs, light coniferous and grass

Track: Broad open slope, light coniferous and grass

Runout Zone: Broad open slope, willows

HISTORY: III. events: 23
highway: 0
full-track: 7

Avalanche Summary Sheet

PATH NAME ('s): North Mineral Bridge

Path Reference Number: 152033 Zone: IV Area: 11

Map Number: 3 Photograph Number: 10

SPECIFICATIONS:

Top Elev.: 12000' Bottom Elev.: 10300' Vertical Fall: 1700'

Length of Path: 3276' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>38°</u>	<u>27°</u>	<u>9°</u>
Area Acres	<u>18</u>	Mean Width <u>700'</u>	Area Acres <u>7</u>
		Length <u>1347'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope with slight depressions and cliffs, light coniferous and grass

Track: Broad open slope, light coniferous and grass

Runout Zone: Broad open slope, moderate coniferous

HISTORY: II. crossed highway: 5

III. events: 53
highway: 0
full-track: 14



035

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102

Avalanche Summary Sheet

PATH NAME ('s): Archie

Path Reference Number: 152034 Zone: IV Area: 10

Map Number: 3 Photograph Number: 10,11

SPECIFICATIONS:

Top Elev.: 11600' Bottom Elev.: 11300' Vertical Fall: 300'

Length of Path: 583' Number of Starting Zones: 8

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>40^o</u>		<u>31^o</u>		<u>27^o</u>
Area Acres	<u>2</u>	Mean Width	<u>800'</u>	Area Acres	<u>1.5</u>
		Length	<u>233'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad, slightly rolling convex-concave slope, talus and willows

Track: Broad open slope, rock outcrops, cliffs, talus, light coniferous

Runout Zone: Broad open slope, rock outcrops, cliffs, talus, light coniferous

HISTORY: III. events: 4
 highway: 0
 full-track: 4

Avalanche Summary Sheet

PATH NAME ('s): U S Basin

Path Reference Number: 152035 Zone: IV Area: 10

Map Number: 3 Photograph Number: 10,11

SPECIFICATIONS:

Top Elev.: 12000' Bottom Elev.: 11600' Vertical Fall: 400'

Length of Path: 894' Number of Starting Zones: 11

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>42°</u>	<u>17°</u>	<u>complex</u>
Area Acres	<u>9</u>	Mean Width <u>2000'</u>	Area Acres <u>8 est.</u>
		Length <u>1046'</u>	
Tree Line	<u>A</u>	<u>A</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, cliffs

Track: Broad open slope, grass

Runout Zone: Broad open slope, moderate to heavy coniferous

HISTORY: III. events: 13
highway: 0
full-track: 7



Avalanche Summary Sheet

PATH NAME ('s): Big Horn

Path Reference Number: 152036 Zone: IV Area: 9

Map Number: 3 Photograph Number: 12

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 11000' Vertical Fall: 200'

Length of Path: 360' Number of Starting Zones: 5

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>38°</u>	<u>22°</u>	<u>15°</u>
Area Acres	<u>2</u>	Mean Width <u>1100'</u>	Area Acres <u>3</u>
		Length <u>300'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

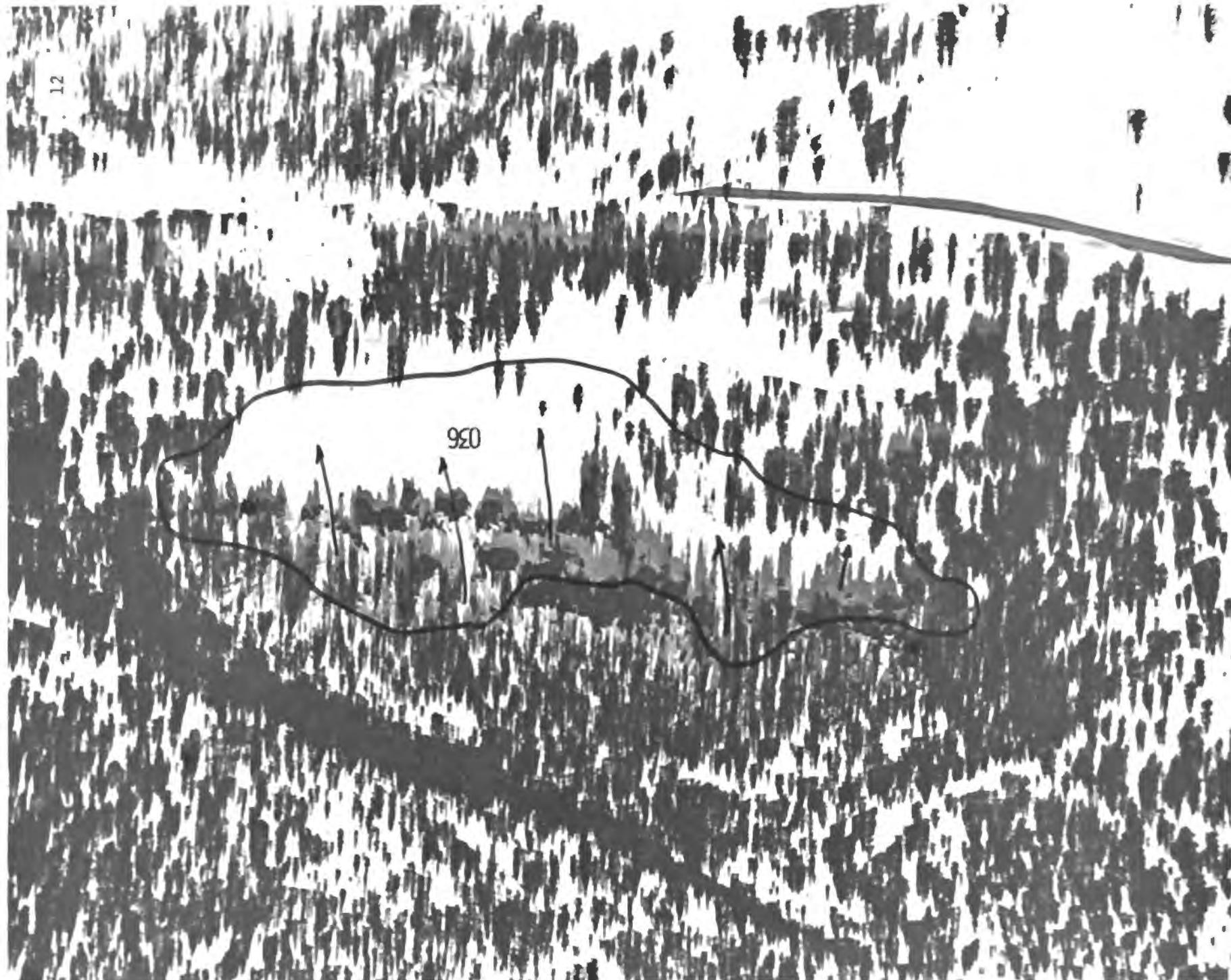
TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, cliffs topped by moderate coniferous

Track: Broad open slope, cliffs and talus

Runout Zone: Broad open slope, moderate coniferous and grass

HISTORY: III. events: 4
highway: 0
full-track: 2



936

Avalanche Summary Sheet

PATH NAME ('s): Study Plot

Path Reference Number: 152037 Zone: IV Area: 9

Map Number: 3 Photograph Number: 13

SPECIFICATIONS:

Top Elev.: 11400' Bottom Elev.: 11200' Vertical Fall: 200'

Length of Path: 539' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>27°</u>	<u>23°</u>	<u>10°</u>
Area Acres	<u>.25</u>	Mean Width <u>200'</u>	Area Acres <u>1</u>
		Length <u>100'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope with slight depressions, light to moderate coniferous and grass

Track: Broad open slope with slight depressions, light to moderate coniferous and grass

Runout Zone: Broad open slope with slight depressions, light to moderate coniferous and grass

HISTORY: III. events: 2
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Marmot Town

Path Reference Number: 152038 Zone: IV Area: 9

Map Number: 3 Photograph Number: 13

SPECIFICATIONS:

Top Elev.: 11400' Bottom Elev.: 11200' Vertical Fall: 200'

Length of Path: 447' Number of Starting Zones: 4

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>55^o</u>	<u>45^o</u>	<u>0</u>
Area Acres	<u>2</u>	Mean Width <u>1000'</u>	Area Acres <u>2</u>
		Length <u>280'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, near vertical cliff and talus

Track: Broad open slope, talus

Runout Zone: Broad open slope, grass and willows

HISTORY: III. events: 8
highway: 0
full-track: 2

Avalanche Summary Sheet

PATH NAME ('s): Longfellow

Path Reference Number: 152039 Zone: IV Area: 9

Map Number: 3 Photograph Number: 13

SPECIFICATIONS:

Top Elev.: 11600' Bottom Elev.: 11200' Vertical Fall: 400'

Length of Path: 721' Number of Starting Zones: 10

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>40°</u>	<u>40°</u>	<u>0-5°</u>
Area Acres	<u>5</u>	Mean Width <u>1400'</u>	Area Acres <u>3</u>
		Length <u>400'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Several broad gullies, cliffs, large rock outcrops, light to moderate coniferous and grass

Track: Narrowing open slope, grass and bare ground

Runout Zone: Bowl-shaped slope, talus, boulders and bare ground

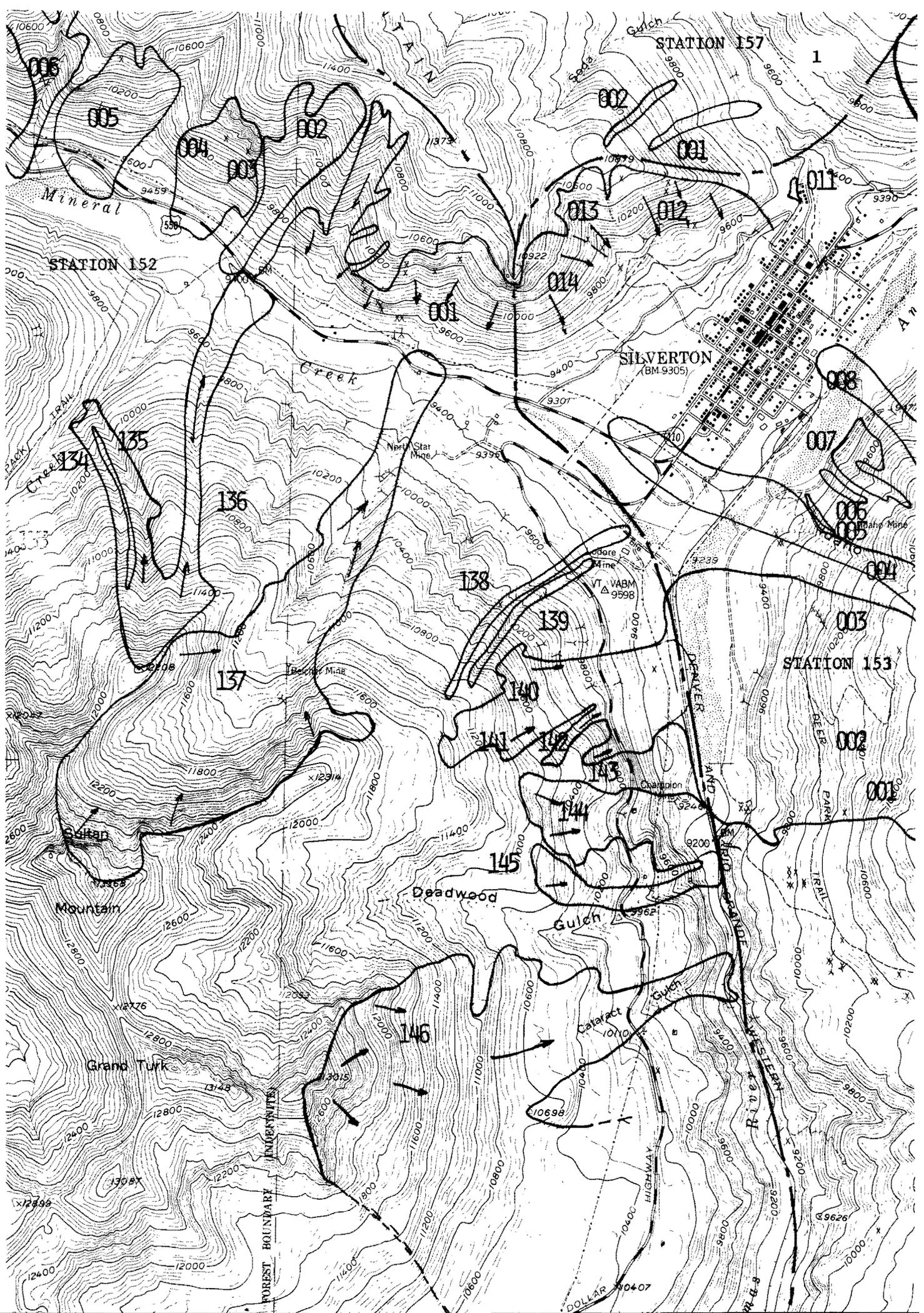
HISTORY: III. events: 19
highway: 0
full-track: 9



SECTION III

Red Mountain Pass to Silverton
west side of U.S. Highway 550

Avalanche paths: 152100 - 152137,
152162 - 152164



Avalanche Summary Sheet

PATH NAME ('s): Runoff

Path Reference Number: 152162 Zone: IV Area: 8

Map Number: 3 Photograph Number: 14,15

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 11000' Vertical Fall: 200'

Length of Path: 538' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>31°</u>	<u>11°</u>
Area Acres	<u>2.4</u>	Mean Width <u>200'</u>	Area Acres <u>2</u>
		Length <u>233'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Vertical cliffs with open grass slope below

Track: Open grass slope and talus

Runout Zone: Broad depression, talus and grass

HISTORY:



14

162

Avalanche Summary Sheet

PATH NAME ('s): Silver Ledge Mine North

Path Reference Number: 152163 Zone: IV Area: 6

Map Number: 3 Photograph Number: 14,15

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 10800' Vertical Fall: 200'

Length of Path: 417' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>27°</u>	<u>39°</u>	<u>11°</u>
Area Acres	<u>1.25</u>	Mean Width <u>600'</u>	Area Acres <u>2.3</u>
		Length <u>128'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open grassy talus slope

Track: Open grassy talus slope

Runout Zone: Broad open fill slope

HISTORY:

Avalanche Summary Sheet

PATH NAME ('s): Silver Ledge Mine

Path Reference Number: 152100 Zone: IV Area: 6

Map Number: 3 Photograph Number: 15,16

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 10700' Vertical Fall: 300'

Length of Path: 583' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>37°</u>	<u>31°</u>	<u>31°</u>
Area Acres	<u>1.1</u>	Mean Width <u>500'</u>	Area Acres <u>1</u>
		Length <u>580'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Two broad open depressions separated by large rock outcrop, small rock outcrops, light coniferous and grass

Track: Narrowing gully, light coniferous, rock outcrops

Runout Zone: Broadening gully, light coniferous, grass and bare ground

HISTORY: II. crossed highway: 15

III. events: 20
highway: 8
full-track: 5

Avalanche Summary Sheet

PATH NAME ('s): Rockwall

Path Reference Number: 152101 Zone: IV Area: 6

Map Number: 3 Photograph Number: 15,16

SPECIFICATIONS:

Top Elev.: 11100' Bottom Elev.: 10500' Vertical Fall: 600'

Length of Path: 1342' Number of Starting Zones: 5

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>37°</u>	<u>34°</u>	<u>31°</u>
Area Acres	<u>1.8</u>	Mean Width <u>1600'</u>	Area Acres <u>19</u>
		Length <u>720'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope with several v-shaped drainages, light coniferous and grass

Track: Broad open slope with several v-shaped drainages, light coniferous and grass

Runout Zone: Open slope, boulders, light to moderate coniferous and grass

HISTORY: I. Silver Ledge Mine tramway damaged: January 1910
March 1912

II. crossed highway: 19

III. events: 45
highway: 22
full-track: 16



Avalanche Summary Sheet

PATH NAME ('s): Silver Ledge Mill

Path Reference Number: 152102 Zone: IV Area: 6

Map Number: 3 Photograph Number: 16,17

SPECIFICATIONS:

Top Elev.: 11600' Bottom Elev.: 10400' Vertical Fall: 1200'

Length of Path: 2773' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39^o</u>	<u>38^o</u>	<u>25^o</u>
Area Acres	<u>3</u>	Mean Width <u>800'</u>	Area Acres <u>6</u>
		Length <u>1650'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, light coniferous and grass

Track: Broad open slope. Upper portion: grass; lower portion, grass and talus

Runout Zone: Broad open slope, light willows and grass

HISTORY: II. crossed highway: 4

III. events: 5
highway: 3
full-track: 4



Avalanche Summary Sheet

PATH NAME ('s): Porcupine

Path Reference Number: 152103 Zone: IV Area: 6

Map Number: 3 Photograph Number: 16,17

SPECIFICATIONS:

Top Elev.: 12000' Bottom Elev.: 10400' Vertical Fall: 1600'

Length of Path: 3400' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>32°</u>	<u>14°</u>
Area Acres	<u>7</u>	Mean Width <u>400'</u>	Area Acres <u>7.5</u>
		Length <u>1887'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open basin, light to moderate coniferous

Track: Broad v-shaped gully, light coniferous and aspen, grass

Runout Zone: Broad open slope, light willows and grass

HISTORY: I. 1939, ran simultaneously with Telescope (105) throwing tree limbs as far as cabins at Chattanooga, lower switchback of highway buried with 11' of snow.

II. crossed highway: 7

III. events: 8
highway: 5
full-track: 6

Avalanche Summary Sheet

PATH NAME ('s): Eagle

Path Reference Number: 152104 Zone: IV Area: 6

Map Number: 3 Photograph Number: 16,17

SPECIFICATIONS:

Top Elev.: 12600' Bottom Elev.: 10400' Vertical Fall: 2200'

Length of Path: 4565' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>41°</u>	<u>31°</u>	<u>14°</u>
Area Acres	<u>11</u>	Mean Width <u>500'</u>	Area Acres <u>35</u>
		Length <u>2332'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, smooth cliffs

Track: Upper portion: broad open slope with broad v-shaped drainages;
 Lower portion: drainages narrow to single v-shaped gully. Light coniferous grass and bare ground

Runout Zone: Broadening fan, light coniferous, willows and grass

HISTORY:

- I. In March, 1884, the town of Chattanooga was struck by an avalanche from Independence Mt., northwest of town, which destroyed four buildings. The Independence mining claim is located in the Eagle slide path.
- II. crossed highway: 35
 during the winter of 1951-1952, the Eagle ran 6 times
- III. events: 99
 highway: 27
 full-track: 38

Avalanche Summary Sheet

PATH NAME ('s): Telescope

Path Reference Number: 152105 Zone: IV Area: 6

Map Number: 3 Photograph Number: 16,17

SPECIFICATIONS:

Top Elev.: 12600' Bottom Elev.: 10400' Vertical Fall: 2200'

Length of Path: 4391' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>31°</u>	<u>34°</u>	<u>22°</u>
Area Acres	<u>16</u>	Mean Width <u>500'</u>	Area Acres <u>12</u>
		Length <u>2163'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open basin, cliffs and large rock outcrops

Track: Upper portion: narrowing basin, grass; lower portion: incised gully, rock outcrops

Runout Zone: broadening fan, talus, light coniferous and willows

- HISTORY:
- I. March, 1912, all the buildings of the Telescope Mt. Mine removed by this avalanche.
1939, ran simultaneously with Porcupine (103) throwing tree limbs as far as cabins at Chattanooga, lower switchback of highway buried with 11' of snow.
 - II. crossed highway: 26
 - III. events: 44
highway: 10
full-track: 18

Avalanche Summary Sheet

PATH NAME ('s): Muleshoe

Path Reference Number: 152106 Zone: IV Area: 6

Map Number: 3 Photograph Number: 16,17

SPECIFICATIONS:

Top Elev.: 12700' Bottom Elev.: 10500' Vertical Fall: 2200'

Length of Path: 4565' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>38°</u>	<u>31°</u>	<u>17°</u>
Area Acres	<u>20</u>	Mean Width <u>400'</u>	Area Acres <u>12</u>
		Length <u>2332'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open basin, cliffs and large rock outcrops

Track: Upper portion: narrowing basin, grass; lower portion: incised gully, rock outcrops

Runout Zone: broadening fan, light coniferous and willows

HISTORY: II. crossed highway: 15

III. events: 39
highway: 3
full-track: 17

Avalanche Summary Sheet

PATH NAME ('s): Bullion King, Precious Metals , Silver Crown

Path Reference Number: 152107 Zone: IV Area: 6

Map Number: 3 Photograph Number: 16,17

SPECIFICATIONS:

Top Elev.: 12800' Bottom Elev.: 10500' Vertical Fall: 2300'

Length of Path: 5400' Number of Starting Zones: 5

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>32°</u>	<u>31°</u>	<u>15°</u>
Area Acres	<u>28</u>	Mean Width <u>600'</u>	Area Acres <u>13</u>
		Length <u>2332'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

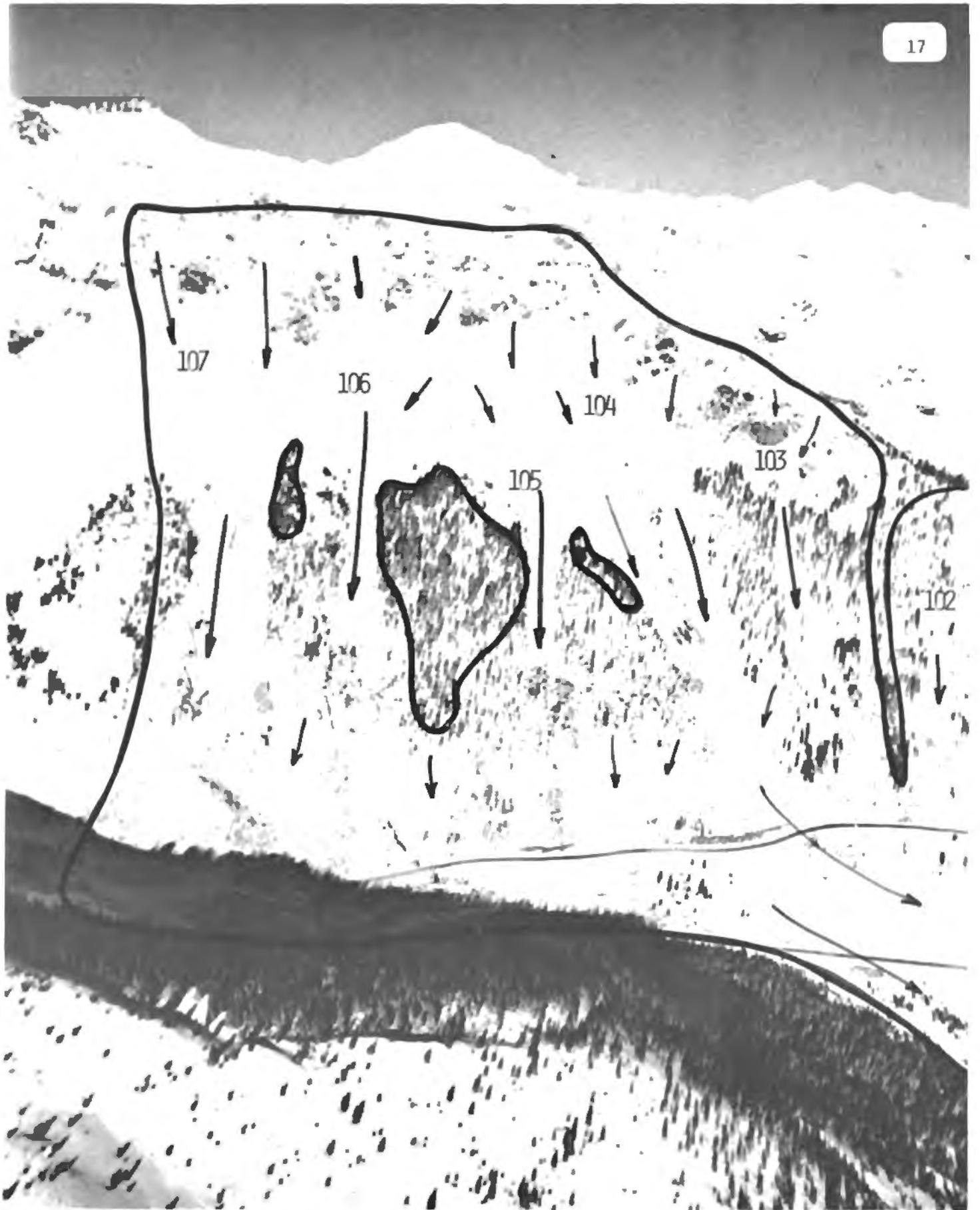
Starting Zone: Open basin, cliffs and large rock outcrops

Track: Upper portion: narrowing basin, grass; lower portion: incised gully, rock outcrops

Runout Zone: broadening fan, talus, light coniferous and willows

HISTORY: I. December 1883, 3 men hauling grub to the mine caught very near the mine, one killed, two survived.
December 1908, outer buildings of the mine damaged

III. events: 21
highway: 0
full-track: 12



Avalanche Summary Sheet

PATH NAME ('s): Mill Creek Cirque

Path Reference Number: 152108-114 Zone: IV Area: 5

Map Number: 3 Photograph Number: 18

SPECIFICATIONS:

Top Elev.: 12700' Bottom Elev.: 10600' Vertical Fall: 2100'

Length of Path: 3610' Number of Starting Zones: multiple

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>40°</u>		<u>--</u>		<u>24°</u>
Area Acres	<u>120</u>	Mean Width	<u>2000</u>	Area Acres	<u>8</u>
		Length	<u> </u>		
Tree Line	<u>A</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open steep slopes and cliffs incised with numerous shallow gullies

Track: Broad open slopes with numerous incised shallow gullies, rock outcrops, light coniferous, talus and willows

Runout Zone: Broad open slope, talus and willows

HISTORY: III. events: 90
 highway: 0
 full-track: 53



114

113

112

111

110

109

108

Avalanche Summary Sheet

PATH NAME ('s): Ernest, Julio, Sam

Path Reference Number: 152115-117 Zone: IV Area: 4

Map Number: 3 Photograph Number: 19,20

SPECIFICATIONS:

Top Elev.: 11600' Bottom Elev.: 10200' Vertical Fall: 1400'

Length of Path: 3311' Number of Starting Zones: 6

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>27°</u>		<u>32°</u>		<u>15°</u>
Area Acres	<u>25</u>	Mean Width	<u>1500'</u>	Area Acres	<u>27</u>
		Length	<u>1526'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: 115 & 116: open knoll, small rocks, light coniferous and grass

117: broad open slope with v-shaped depressions, light small coniferous

Track: 115 & 116: broadening slope, small rock outcrops, light coniferous and grass. 117: 2 v-shaped depressions, light small coniferous and grass

Runout Zone: 115 & 116: broad open slope, moderate coniferous, grass

117: broad open cone, light small coniferous and grass

HISTORY: III.

	115	116	117
	Ernest	Julio	Sam
event:	8	4	14
highway:	0	0	0
full-track:	7	4	7

Avalanche Summary Sheet

PATH NAME ('s): 00tah

Path Reference Number: 152118 Zone: IV Area: 4

Map Number: 3 Photograph Number: 19,20

SPECIFICATIONS:

Top Elev.: 10600' Bottom Elev.: 10200' Vertical Fall: 400'

Length of Path: 721' Number of Starting Zones: 3

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>34°</u>		<u>34°</u>		<u>16°</u>
Area Acres	<u>2</u>	Mean Width	<u>400'</u>	Area Acres	<u>2.5</u>
		Length	<u>360'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, small light to moderate coniferous

Track: Broad open slope, light coniferous, grass and bare ground

Runout Zone: Broad open slope, grass and willows

HISTORY: III. events: 4
highway: 0
full-track: 3



Avalanche Summary Sheet

PATH NAME ('s): Imogene, Riley Boy

Path Reference Number: 152119 Zone: IV Area: 4

Map Number: 3 Photograph Number: 19,20

SPECIFICATIONS:

Top Elev.: 12400' Bottom Elev.: 10100' Vertical Fall: 2300'

Length of Path: 5686' Number of Starting Zones: 6

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>22°</u>	<u>15°</u>
Area Acres	<u>50</u>	Mean Width <u>300'</u>	Area Acres <u>24</u>
		Length <u>3231'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad basin with large rock outcrops; lower portion: small rock outcrops and grass

Track: Narrowing v-shaped depression, grass and willows

Runout Zone: Broad fan, grass and willows

HISTORY: II. crossed highway: 1

III. events: 20
highway: 1
full-track: 10

Avalanche Summary Sheet

PATH NAME ('s): Portal

Path Reference Number: 152120 Zone: IV Area: 4

Map Number: 3 Photograph Number: 20

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 10100' Vertical Fall: 900'

Length of Path: 2846' Number of Starting Zones: 1

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>45°</u>		<u>19°</u>		<u>15°</u>
Area Acres	<u>.65</u>	Mean Width	<u>100'</u>	Area Acres	<u>1</u>
		Length	<u>1265'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow open slope with slight depressions, light to moderate coniferous and bare ground

Track: Open slope, light to moderate coniferous

Runout Zone: Broad slope, moderate to heavy coniferous

HISTORY: III. events: 3
 highway: 0
 full-track: 2



Avalanche Summary Sheet

PATH NAME ('s): Outlaw

Path Reference Number: 152121 Zone: IV Area: 4

Map Number: 3 Photograph Number: 21

SPECIFICATIONS:

Top Elev.: 11400' Bottom Elev.: 10100' Vertical Fall: 1300'

Length of Path: 3087' Number of Starting Zones: 2

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>34^o</u>		<u>30^o</u>		<u>17^o</u>
Area Acres	<u>1.5</u>	Mean Width	<u>200'</u>	Area Acres	<u>7</u>
		Length	<u>1617'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow depression, moderate coniferous and grass

Track: Narrow v-shaped depression, light small coniferous and willows

Runout Zone: Broad open slope, grass

HISTORY: III. events: 4
 highway: 0
 full-track: 4

Avalanche Summary Sheet

PATH NAME ('s): San Juan

Path Reference Number: 152122 Zone: IV Area: 4

Map Number: 3 Photograph Number: 21

SPECIFICATIONS:

Top Elev.: 11800' Bottom Elev.: 10100' Vertical Fall: 1700'

Length of Path: 3891' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>32°</u>	<u>14°</u>
Area Acres	<u>2</u>	Mean Width <u>300'</u>	Area Acres <u>11</u>
		Length <u>1887'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow depression, moderate coniferous and grass

Track: Narrow slight depression, small rock outcrops, small light coniferous and willows

Runout Zone: Broad open slope, grass

HISTORY: III. events: 8
highway: 0
full-track: 4

Avalanche Summary Sheet

PATH NAME ('s): Tavern

Path Reference Number: 152123 Zone: IV Area: 4

Map Number: 3 Photograph Number: 21

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 10100' Vertical Fall: 1100'

Length of Path: 2460' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>40°</u>	<u>32°</u>	<u>15°</u>
Area Acres	<u>1</u>	Mean Width <u>200'</u>	Area Acres <u>10</u>
		Length <u>943'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow depression, moderate coniferous and grass

Track: Narrow slight depression, small light coniferous

Runout Zone: Broad open slope, grass

HISTORY: III. events: 7
highway: 0
full-track: 5

Avalanche Summary Sheet

PATH NAME ('s): Burro Bridge

Path Reference Number: 152124 Zone: IV Area: 4

Map Number: 3 Photograph Number: 21

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 10000' Vertical Fall: 1200'

Length of Path: 2955' Number of Starting Zones: 2

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>28^o</u>		<u>34^o</u>		<u>12</u>
Area Acres	<u>.3</u>	Mean Width	<u>100'</u>	Area Acres	<u>1</u>
		Length	<u>1447'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Rounded depression, talus and moderate coniferous

Track: Narrow slight depression, talus and light small coniferous

Runout Zone: Open slope. Upper portion: heavy coniferous; lower portion: grass and willows

HISTORY: I. spring, 1886, 1 man and 16 horses killed by this slide

III. events: 2
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): January

Path Reference Number: 152164 Zone: IV Area: 4

Map Number: 3 Photograph Number: 21

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 9900' Vertical Fall: 1100'

Length of Path: 2110' Number of Starting Zones: 1

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>39^o</u>		<u>34^o</u>		<u>15^o</u>
Area Acres	<u>.25</u>	Mean Width	<u>50'</u>	Area Acres	<u>1</u>
		Length	<u>1447'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Moderate shallow depression, moderate coniferous

Track: Moderate shallow depression, moderate coniferous

Runout Zone: Broad open fill slope, grass, to bed of Mineral Creek

HISTORY:

Avalanche Summary Sheet

PATH NAME ('s): Ophir Road East

Path Reference Number: 152125 Zone: IV Area: 3

Map Number: 3 Photograph Number: 21

SPECIFICATIONS:

Top Elev.: 12600' Bottom Elev.: 10000' Vertical Fall: 2600'

Length of Path: 5636' Number of Starting Zones: 5

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>25°</u>	<u>17°</u>
Area Acres	<u>10</u>	Mean Width <u>300'</u>	Area Acres <u>7</u>
		Length <u>3310'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open basin, grass

Track: Narrowing to less open, depressions, grass and small light coniferous

Runout Zone: Narrow creek bottom, and adverse slope.

HISTORY: III. events: 12
highway: 0
full-track: 7

Avalanche Summary Sheet

PATH NAME ('s): Ophir Road West

Path Reference Number: 152126 Zone: IV Area: 3

Map Number: 3 Photograph Number: 21

SPECIFICATIONS:

Top Elev.: 12600' Bottom Elev.: 10100' Vertical Fall: 2500'

Length of Path: 5590' Number of Starting Zones: 5

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>28°</u>	<u>17°</u>
Area Acres	<u>11</u>	Mean Width <u>400'</u>	Area Acres <u>5</u>
		Length <u>3851'</u>	
Tree Line	<u>A</u>	<u>A</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open basin, grass

Track: Narrowing to less open, depressions, grass and small light coniferous

Runout Zone:

HISTORY: III. events: 8
highway: 0
full-track: 3



Avalanche Summary Sheet

PATH NAME ('s): Bismark , South American

Path Reference Number: 152127 Zone: IV Area: 2

Map Number: 2 Photograph Number: 22

SPECIFICATIONS:

Top Elev.: 11800' Bottom Elev.: 9800' Vertical Fall: 2000'

Length of Path: 5385' Number of Starting Zones: 5

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>39°</u>		<u>23°</u>		<u>6°</u>
Area Acres	<u>23</u>	Mean Width	<u>150'</u>	Area Acres	<u>3</u>
		Length	<u>4662'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, grass

Track: Narrowing to v-shaped depression, grass

Runout Zone: Bed of Mineral Creek

HISTORY: III. events: 14
highway: 0
full-track: 6

Avalanche Summary Sheet

PATH NAME ('s): Battleship, Arnold

Path Reference Number: 152128 Zone: IV Area: 2

Map Number: 2 Photograph Number: 22

SPECIFICATIONS:

Top Elev.: 12400' Bottom Elev.: 9700' Vertical Fall: 2700'

Length of Path: 7038' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34^o</u>	<u>23^o</u>	<u>27^o</u> adv.
Area Acres	<u>76</u>	Mean Width <u>300'</u>	Area Acres <u>18</u>
		Length <u>4754'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Three broad shallow basins, scree, small light coniferous and grass

Track: Narrowing to v-shaped depression, rock outcrops, small light coniferous and bare ground

Runout Zone: bed of Mineral Creek

HISTORY: I. 1932, 2 big trees deposited on highway
1943, hit highway, 2' in deepest place
March 1948, concussion snapped transmission and telephone lines

II. crossed highway: 2
winter of 1951-1952, piled 4-5' of snow on highway

III. events: 36
highway: 0
full-track: 13



Avalanche Summary Sheet

PATH NAME ('s): Destroyer

Path Reference Number: 152129 Zone: IV Area: 2

Map Number: 2 Photograph Number: 22,23

SPECIFICATIONS:

Top Elev.: 11800' Bottom Elev.: 9640' Vertical Fall: 2160'

Length of Path: 4902 Number of Starting Zones: .2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>31^o</u>	<u>27^o</u>	<u>13</u>
Area Acres	<u>10</u>	Mean Width <u>250'</u>	Area Acres <u>4</u>
		Length <u>3936'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow depression, light coniferous

Track: Narrow v-shaped depression, light small coniferous

Runout Zone: bed of Mineral Creek

HISTORY: I. 1943, threw tree limbs on highway

III. events: 3
highway: 0
full-track: 3

Avalanche Summary Sheet

PATH NAME ('s): G I

Path Reference Number: 152130 Zone: IV Area: 2

Map Number: 2 Photograph Number: 23

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 9600' Vertical Fall: 1600'

Length of Path: 3053' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>31°</u>	<u>17°</u>
Area Acres	<u>2.6</u>	Mean Width <u>250'</u>	Area Acres <u>2</u>
		Length <u>2332'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Very narrow depression, light small coniferous and grass

Track: Widening slight depression, light small coniferous, grass and bare ground

Runout Zone: Open slope, with grass, aspen and light coniferous.

HISTORY: III. events: 3
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Pickle Barrel

Path Reference Number: 152131 Zone: IV Area: 2

Map Number: 2 Photograph Number: 23

SPECIFICATIONS:

Top Elev.: 10800' Bottom Elev.: 9540' Vertical Fall: 1260'

Length of Path: 2535' Number of Starting Zones: 2

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>39^o</u>		<u>25^o</u>		<u>15^o</u>
Area Acres	<u>2</u>	Mean Width	<u>300'</u>	Area Acres	<u>3.5</u>
		Length	<u>1432'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

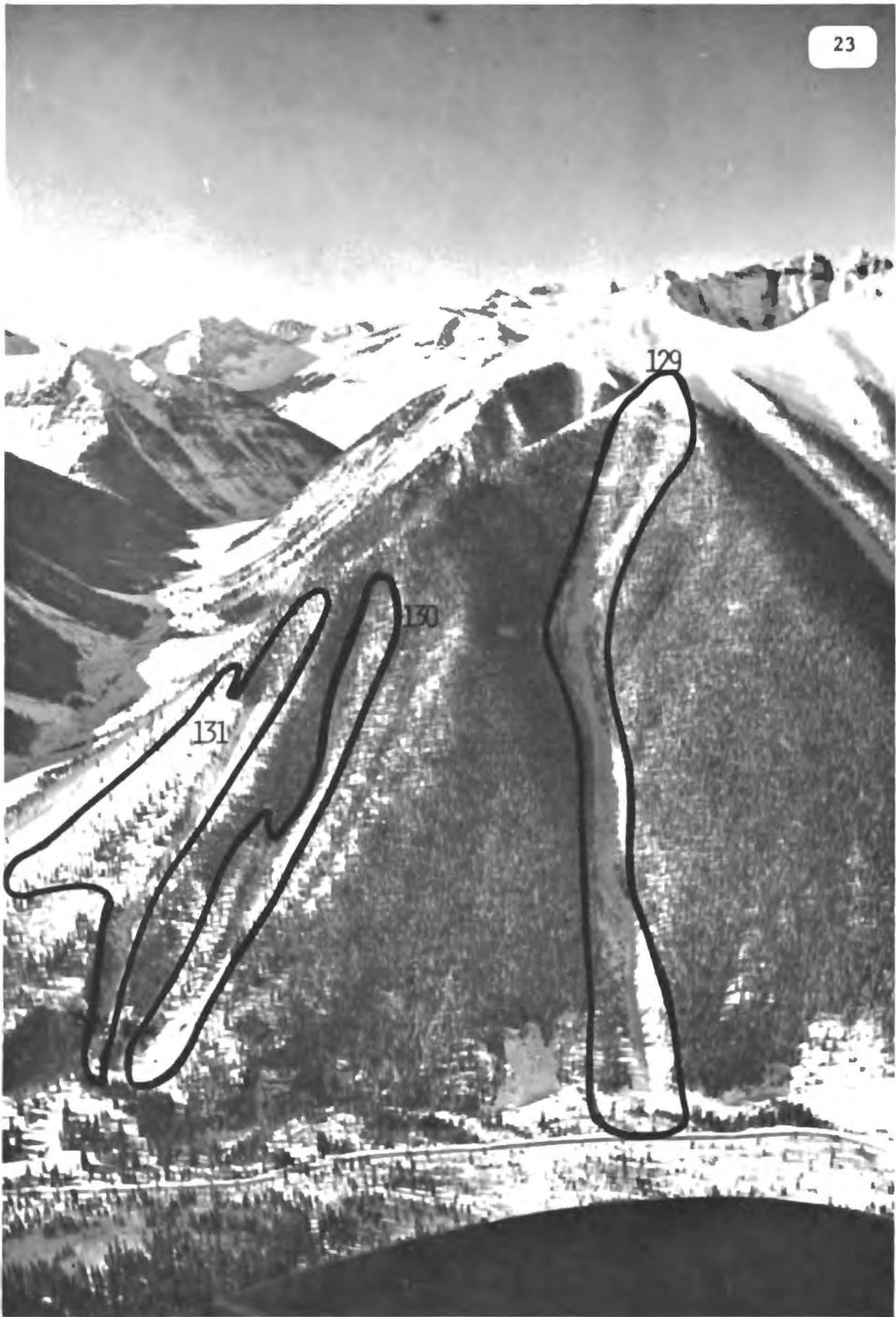
TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope with v-shaped depression, light to moderate coniferous, grass and bare ground

Track: V-shaped depression, light to moderate coniferous, grass and bare ground

Runout Zone: North--narrow gulley with light coniferous and grass.
South--broad slope with light coniferous and aspen.

HISTORY: III. events: 5
highway: 0
full-track: 2



Avalanche Summary Sheet

PATH NAME ('s): Snowslide Gulch

Path Reference Number: 152132 Zone: IV Area: 1

Map Number: 2 Photograph Number: 24

SPECIFICATIONS:

Top Elev.: 11800' Bottom Elev.: 9540' Vertical Fall: 2260'

Length of Path: 5487' Number of Starting Zones: 7

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>40°</u>	<u>28°</u>	<u>18°</u>
Area Acres	<u>37</u>	Mean Width <u>200'</u>	Area Acres <u>3</u>
		Length <u>3400'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad basin with several depressions, rock outcrops, light coniferous

Track: Narrows to gully with rock outcrops, willows and bare ground

Runout Zone: Broad cone-shaped grassy truncated fan, moderate coniferous and willows in drainage beneath fan

HISTORY: II. March 1958, covered county road with 20' of snow

III. events: 11
highway: 0
full-track: 7

Avalanche Summary Sheet

PATH NAME ('s): String Along

Path Reference Number: 152133 Zone: IV Area: 1

Map Number: 2 Photograph Number: 24

SPECIFICATIONS:

Top Elev.: 11300' Bottom Elev.: 9600' Vertical Fall: 1700'

Length of Path: 3448' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>37°</u>	<u>31°</u>	<u>18°</u>
Area Acres	<u>.6</u>	Mean Width <u>100'</u>	Area Acres <u>3</u>
		Length <u>2693'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow depression, light small coniferous

Track: Narrow depression, small rock outcrops, light small coniferous

Runout Zone: Broad open slope, willows

HISTORY: III. events: 1
highway: 0
full-track: 1



Avalanche Summary Sheet

PATH NAME ('s): Bear Creek West

Path Reference Number: 152134 Zone: II Area: 1

Map Number: 1,2 Photograph Number: 25

SPECIFICATIONS:

Top Elev.: 12200' Bottom Elev.: 9800' Vertical Fall: 2400'

Length of Path: 4495' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>28°</u>	<u>22°</u>
Area Acres	<u>1</u>	Mean Width <u>200'</u>	Area Acres <u>4</u>
		Length <u>2506'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open talus slope with rock outcrops

Track: Narrows to well-defined track with flat cross section, light small coniferous and grass

Runout Zone: Narrow adverse gully and creek bottom.

HISTORY: III. events: 1
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Bear Creek East

Path Reference Number: 152135 Zone: II Area: 1

Map Number: 1 Photograph Number: 25

SPECIFICATIONS:

Top Elev.: 12200' Bottom Elev.: 9700' Vertical Fall: 2500'

Length of Path: 5148' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>29°</u>	<u>20°</u>
Area Acres	<u>3</u>	Mean Width <u>300'</u>	Area Acres <u>3</u>
		Length <u>3672'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad basin with incised gullies, large rock outcrops

Track: Narrows to rounded gully, talus, grass and bare ground

Runout Zone: Broad open flat, creek, with grass willows and aspen.

HISTORY: III. events: 1
highway: 0
full-track: 0



Avalanche Summary Sheet

PATH NAME ('s): North Star

Path Reference Number: 152137 Zone: II Area: 2

Map Number: 1 Photograph Number: 26

SPECIFICATIONS:

Top Elev.: 13000' Bottom Elev.: 9300' Vertical Fall: 3700'

Length of Path: 11132' Number of Starting Zones: multiple

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>32°</u>		<u>18°</u>		<u>13°</u>
Area Acres	<u>175</u>	Mean Width	<u>200'</u>	Area Acres	<u>31</u>
		Length	<u>8412'</u>		
Tree Line	<u>A</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad basin, numerous large rock outcrops and incised gullies, talus

Track: Narrows to v-shaped gully with rock outcrops, small light coniferous and aspen and willows

Runout Zone: Narrow fan, light coniferous talus and willows

- HISTORY:**
- I. January 1886, 1 man carried down entire length of path, survived
 - February 1891, 3 men killed by slide in Belcher Basin (North Star Basin)
 - March 1906, slide starting in Belcher Basin crossed Mineral Creek and stopped on Anvil Mt., destroying a stone powder house
- III. events: 2
highway: 0
full-track: 0



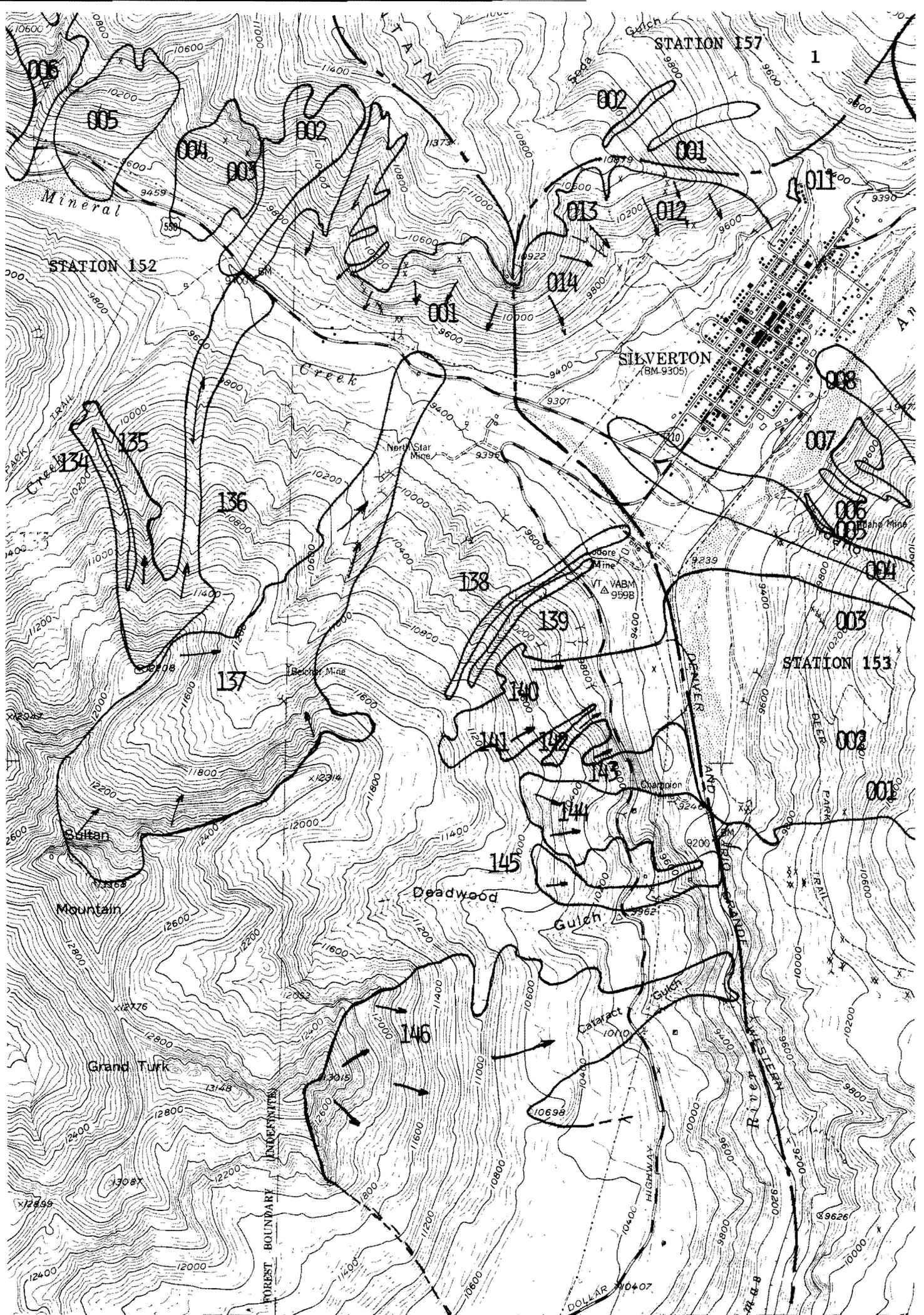
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SECTION IV

Silverton to Molas Pass

U.S. Highway 550

Avalanche paths: 152138 - 152146



Avalanche Summary Sheet

PATH NAME ('s): Gladstone North, Dora Slide, Twin Slide

Path Reference Number: 152138 Zone: II Area: 3

Map Number: 1 Photograph Number: 27

SPECIFICATIONS:

Top Elev.: 11400' Bottom Elev.: 9240' Vertical Fall: 2160'

Length of Path: 4992' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>26°</u>	<u>9°</u>
Area Acres	<u>.5</u>	Mean Width <u>100'</u>	Area Acres <u>10</u>
		Length <u>2236'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Very narrow shallow depression, light small coniferous, grass and bare ground

Track: Narrow shallow depression, light to moderate small coniferous, grass and bare ground

Runout Zone: Open slope, light coniferous, moderate aspen and grass

HISTORY: I. May 10, 1941, deposited numerous trees on highway
III. events: 1
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Gladstone South , Dora Slide, Twin Slide

Path Reference Number: 152139 Zone: II Area: 3

Map Number: 1 Photograph Number: 27

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 9024' Vertical Fall: 1760'

Length of Path: 3652' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39^o</u>	<u>30^o</u>	<u>9^o</u>
Area Acres	<u>.3</u>	Mean Width <u>100'</u>	Area Acres <u>10</u>
		Length <u>2419'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Very narrow shallow depression, light small coniferous, grass and bare ground

Track: Narrow shallow depression, light small coniferous and grass in upper track; lower track: heavy, large coniferous

Runout Zone: Open slope, light to moderate coniferous, aspen and grass; mine dump

HISTORY: I. March 1878, 4 men died when slide hit cabin at Ajax shaft, just below Highway 550

III. events: 0
highway: 0
full-track: 0



Avalanche Summary Sheet

PATH NAME ('s): Jennie Parker North

Path Reference Number: 152140 Zone: II Area: 4

Map Number: 1 Photograph Number: 27

SPECIFICATIONS:

Top Elev.: 11300' Bottom Elev.: 9200' Vertical Fall: 2100'

Length of Path: 4696' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>54°</u>	<u>22°</u>	<u>20°</u>
Area Acres	<u>9</u>	Mean Width <u>300'</u>	Area Acres <u>13</u>
		Length <u>1616'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad shallow depressions, cliffs and large rock outcrops alternating with bands of moderate coniferous

Track: Broad open slope. Upper portion: smooth rock outcrops, light small coniferous; lower portion: talus slope above and light boulders, very light coniferous, willows and grass below

Runout Zone: Broad open slope, grass and willows

HISTORY: I. (for 140 and 141)

February 1884, ore house of Jennie Parker Mine carried away

January 1886, all buildings on claim demolished

February 27, 1927, debris covered railroad tracks

II. (for 140 and 141)

crossed highway: 15

III. events: 8

highway: 2

full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Jennie Parker South

Path Reference Number: 152141 Zone: II Area: 4

Map Number: 1 Photograph Number: 27

SPECIFICATIONS:

Top Elev.: 11400' Bottom Elev.: 9200' Vertical Fall: 2200'

Length of Path: 4741 Number of Starting Zones: 2

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>30°</u>		<u>22°</u>		<u>20°</u>
Area Acres	<u>11</u>	Mean Width	<u>300'</u>	Area Acres	<u>13</u>
		Length	<u>2608'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad shallow depressions, cliffs and large rock outcrops alternating with bands of moderate coniferous

Track: Broad open slope. Upper portion: smooth rock outcrops, light small coniferous; lower portion: light smooth rocky outcrops, moderate small to medium coniferous and aspen

Runout Zone: Broad open slope. Upper portion: moderate coniferous and aspen; lower portion: light boulders, grass and willows

HISTORY: I. see Jennie Parker North, #140

II. see Jennie Parker North, #140

III. events: 8
highway: 2
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Peacock

Path Reference Number: 152142 Zone: II Area: 4

Map Number: 1 Photograph Number: 27

SPECIFICATIONS:

Top Elev.: 10800' Bottom Elev.: 9200' Vertical Fall: 1600'

Length of Path: 3225' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>40°</u>	<u>33°</u>	<u>6°</u>
Area Acres	<u>.5</u>	Mean Width <u>100'</u>	Area Acres <u>7</u>
		Length <u>2025'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open talus slope

Track: Open slope, large rock outcrops, light to medium small coniferous and aspen

Runout Zone: Broad open slope, grass, willows, light boulders and light aspen

HISTORY: II. crossed highway: 7

III. events: 5
highway: 5
full-track: 4

Avalanche Summary Sheet

PATH NAME ('s): Harley Short

Path Reference Number: 152143 Zone: II Area: 4

Map Number: 1 Photograph Number: 27,28

SPECIFICATIONS:

Top Elev.: 10400' Bottom Elev.: 9200' Vertical Fall: 1200'

Length of Path: 2332' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>41°</u>	<u>39°</u>
Area Acres	<u>.5</u>	Mean Width <u>200'</u>	Area Acres <u>4.5</u>
		Length <u>922</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

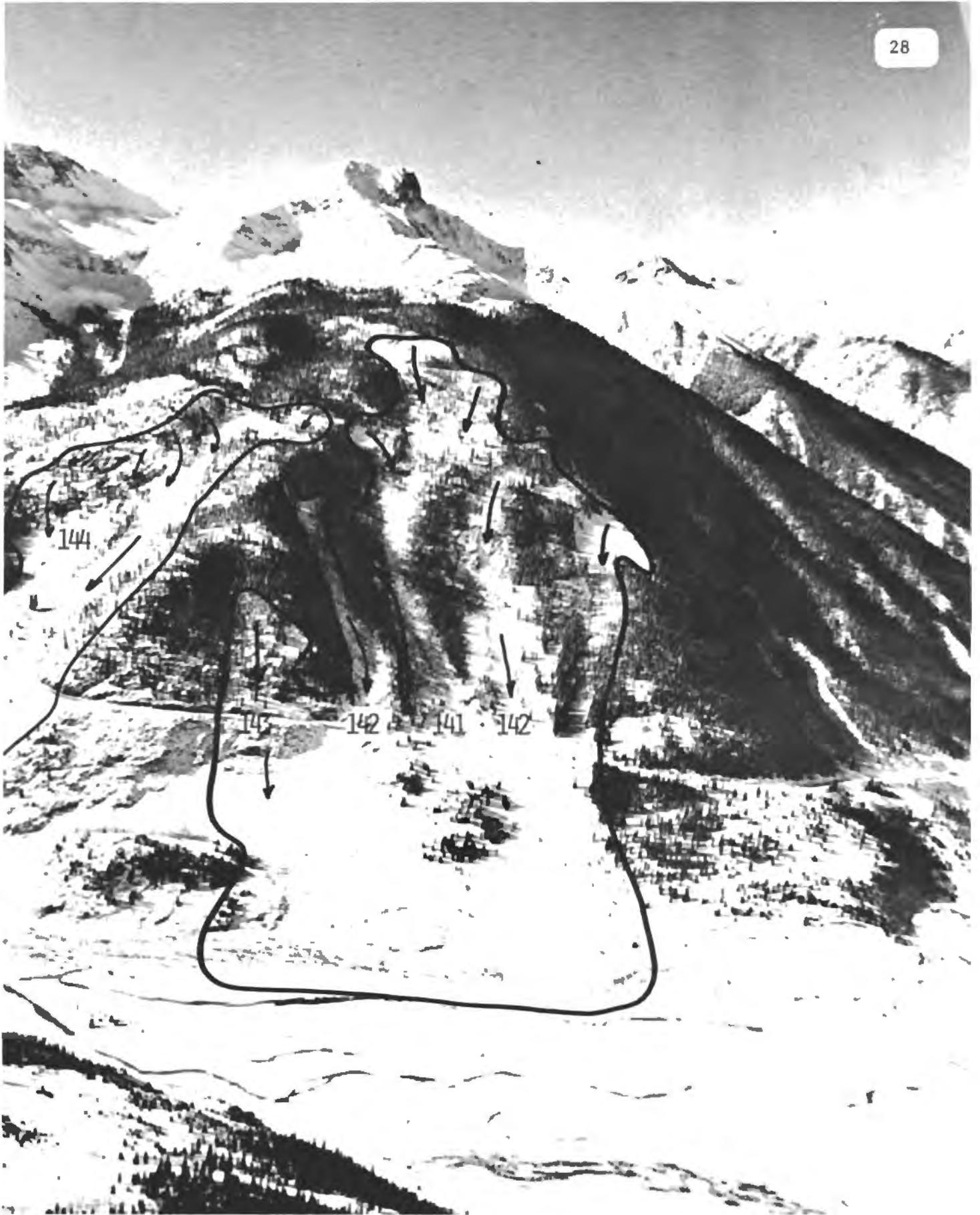
Starting Zone: Broad open slope, cliffs and rock outcrops alternating with medium coniferous and aspen

Track: Broad open slope, cliffs and rock outcrops alternating with medium coniferous and aspen

Runout Zone: Rocky cliff with talus slope and willows below

HISTORY: II. crossed highway: 6

III. events: 3
highway: 3
full-track: 2



Avalanche Summary Sheet

PATH NAME ('s): Champion

Path Reference Number: 152144 Zone: II Area: 4

Map Number: 1 Photograph Number: 28

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 9200' Vertical Fall: 1800'

Length of Path: 3936' Number of Starting Zones: 2

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>40°</u>		<u>29°</u>		<u>7°</u>
Area Acres	<u>25</u>	Mean Width	<u>600</u>	Area Acres	<u>14</u>
		Length	<u>2283'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad v-shaped depression, talus, small rock outcrops and cliffs, light coniferous

Track: Broad depression, talus, rock outcrops, light coniferous, aspen and grass

Runout Zone: Broad open fan, large boulders, grass. Flat flood plain, grass and willows below.

HISTORY: I. February, 1915, 1 man killed at Champion Mine
 February, 1932, railroad bridge dislodged from its foundation and moved 30 feet
 II. crossed highway: 30
 III. events: 28
 highway: 18
 full-track: 6

Avalanche Summary Sheet

PATH NAME ('s): Deadwood

Path Reference Number: 152145 Zone: II Area: 5

Map Number: 1 Photograph Number: 29

SPECIFICATIONS:

Top Elev.: 10800' Bottom Elev.: 9200' Vertical Fall: 1600'

Length of Path: 3578' Number of Starting Zones: 2

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>30^o</u>		<u>29^o</u>		<u>0</u>
Area Acres	<u>11</u>	Mean Width	<u>300'</u>	Area Acres	<u>3</u>
		Length	<u>2506'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Two large basins, cliffs, rock outcrops with talus below

Track: Upper portion: narrow v-shaped depression, light coniferous, grass and bare ground; lower portion: narrow v-shaped depression in smooth bedrock

Runout Zone: Broad open flat and river bottom.

HISTORY: II. December 1951, ran from main gully and covered highway

III. events: 1
highway: 1
full-track: 1



Avalanche Summary Sheet

PATH NAME ('s): King Mine

Path Reference Number: 152146 Zone: II Area: 5

Map Number: 1 Photograph Number: 31

SPECIFICATIONS:

Top Elev.: 13000' Bottom Elev.: 9200' Vertical Fall: 4800'

Length of Path: 8323' Number of Starting Zones: multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>41^o</u>	<u>26^o</u>	<u>0</u>
Area Acres	<u>64</u>	Mean Width <u>800'</u>	Area Acres <u>4</u>
		Length <u>5903'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open cliffs with broad open slope below, talus, large rock outcrops

Track: Upper: broad open slopes, benches, rock bands, brush and grass;
Lower portion: broad open slope, small rock outcrops, moderate to heavy coniferous and aspen

Runout Zone: Broad open cliffs, light coniferous, crosses Animas drainage below

HISTORY: I. 1932, covered railroad tracks
January 1935, covered the tracks of the Denver & Rio Grande Railroad 15' deep and 40' in length

II. crossed highway: 2

III. events: 0
highway: 0
full-track: 0

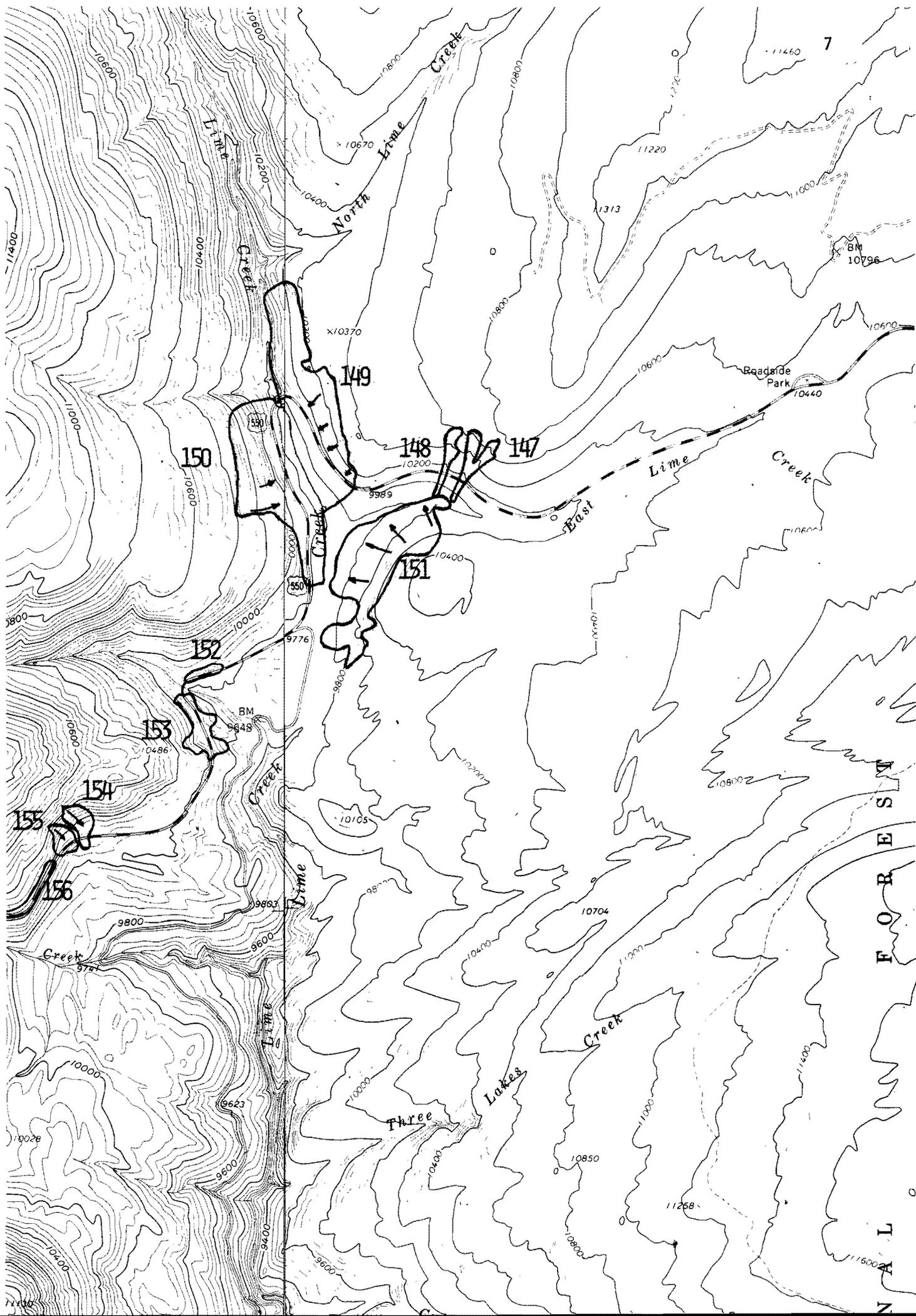


SECTION V

Molas Pass to Coal Bank Pass

U.S. Highway 550

Avalanche paths: 152147 - 152161



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BM
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Park

North
Lime
Creek

East
Lime
Creek

Three
Lakes
Creek

150

149

148

147

151

152

BM
9645

153

154

155

156

Creek
9776

9623

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Creek

10850

11268

11460

11313

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11500

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Avalanche Summary Sheet

PATH NAME ('s): Waterfall

Path Reference Number: 152147 Zone: I Area: 5

Map Number: 7 Photograph Number: 32,33,35

SPECIFICATIONS:

Top Elev.: 10800' Bottom Elev.: 9900' Vertical Fall: 900'

Length of Path: 1581' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>47^o</u>	<u>30^o</u>	<u>0</u>
Area Acres	<u>2</u>	Mean Width <u>50'</u>	Area Acres <u>.25</u>
		Length <u>1389'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, brush, tall grass and talus

Track: Shallow depression. Upper portion: moderate aspen; lower portion: talus with willows below

Runout Zone: Broad open slope, talus

HISTORY: II. crossed highway: 2

III. events: 3
highway: 3
full-track: 2

Avalanche Summary Sheet

PATH NAME ('s): Springs

Path Reference Number: 152148 Zone: I Area: 5

Map Number: 7 Photograph Number: 32,33,35

SPECIFICATIONS:

Top Elev.: 10600' Bottom Elev.: 9900' Vertical Fall: 700'

Length of Path: 1389' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39^o</u>	<u>29^o</u>	<u>0</u>
Area Acres	<u>1</u>	Mean Width <u>50'</u>	Area Acres <u>.25</u>
		Length <u>1253'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open bowl-shaped depression, talus and grass

Track: Shallow depression, moderate small aspen and grass

Runout Zone: Broad open slope, talus

HISTORY: II. crossed highway: 1

III. events: 5
highway: 2
full-track: 3



Avalanche Summary Sheet

PATH NAME ('s): East Lime Creek

Path Reference Number: 152149 Zone: I Area: 5

Map Number: 7 Photograph Number: 32,33,35

SPECIFICATIONS:

Top Elev.: 10300' Bottom Elev.: 9700' Vertical Fall: 600'

Length of Path: 1166' Number of Starting Zones: Multiple

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>50^o</u>		<u>34^o</u>		<u>45^o</u>
Area Acres	<u>14</u>	Mean Width	<u>1600'</u>	Area Acres	<u>5</u>
		Length	<u>361</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, benches including narrow rock bands and cliffs, very light aspen, talus and grass

Track: Broad open slope, benches include narrow rock bands and cliffs and exposed bedrock, talus, moderate aspen, willows and grass

Runout Zone: Broad open slope, talus

HISTORY: II. crossed highway: 8

III. events: 15
highway: 8
full-track: 4



Avalanche Summary Sheet

PATH NAME ('s): West Lime Creek

Path Reference Number: 152150 Zone: I Area: 5

Map Number: 7 Photograph Number: 33,34,35

SPECIFICATIONS:

Top Elev.: 10400' Bottom Elev.: 9700' Vertical Fall: 700'

Length of Path: 1389' Number of Starting Zones: 2

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>31°</u>		<u>30°</u>		<u>27°</u>
Area Acres	<u>16</u>	Mean Width	<u>2200'</u>	Area Acres	<u>11</u>
		Length	<u>943'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

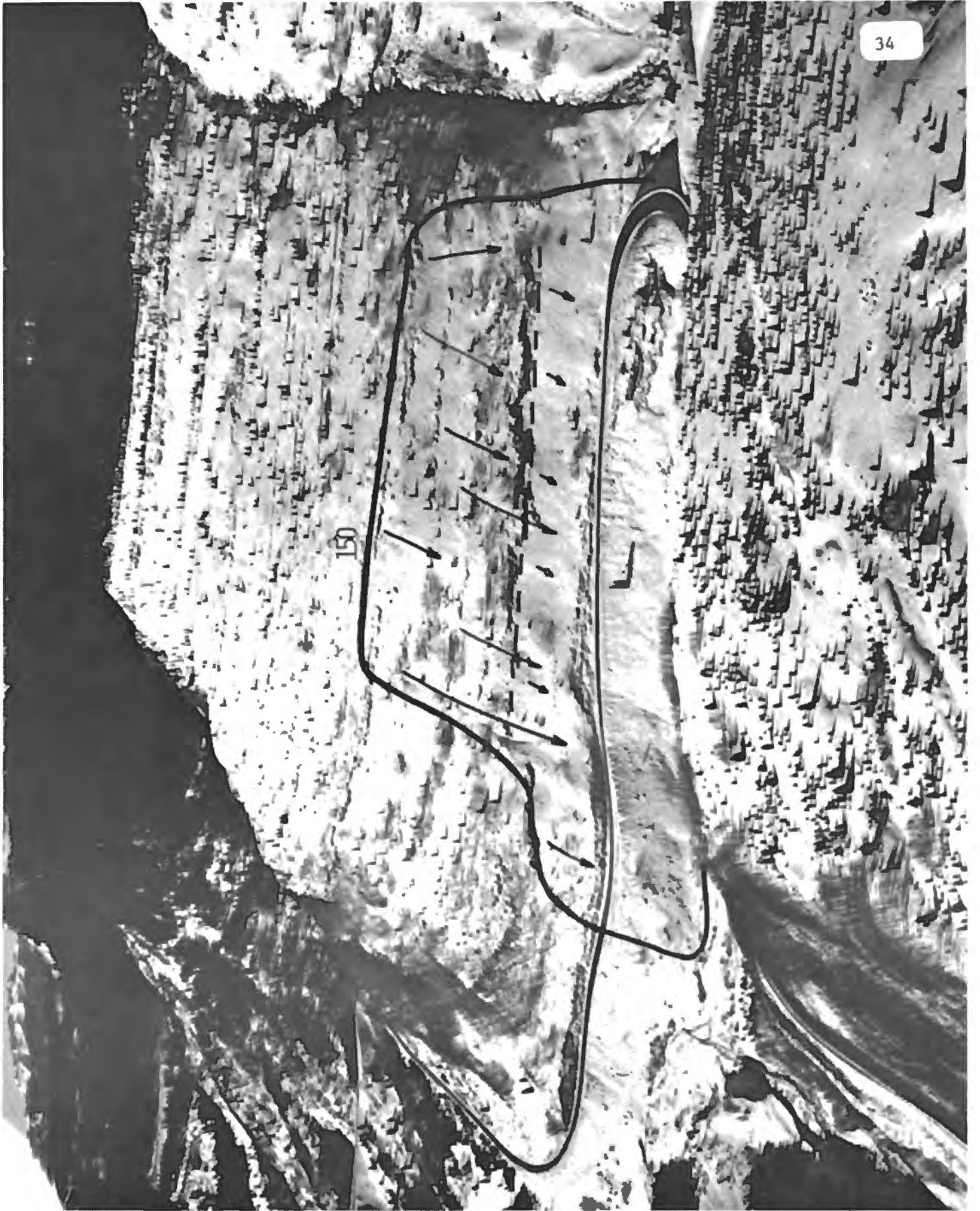
Starting Zone: Broad open slope, benches including narrow rock bands and cliffs, very light aspen, coniferous, talus and grass

Track: Broad open slope, benches including narrow rock bands and cliffs, very light aspen, coniferous talus and grass

Runout Zone: Broad open slope, talus

HISTORY: II. crossed highway: 11

III. events: 23
highway: 5
full-track: 6



Avalanche Summary Sheet

PATH NAME ('s): Gobblers Knob

Path Reference Number: 152151 Zone: I Area: 5

Map Number: 7 Photograph Number: 32,33,34

SPECIFICATIONS:

Top Elev.: 10300' Bottom Elev.: 9700' Vertical Fall: 600'

Length of Path: 1253' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>27°</u>	<u>22°</u>
Area Acres	<u>10</u>	Mean Width <u>2000'</u>	Area Acres <u>8</u>
		Length <u>447'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

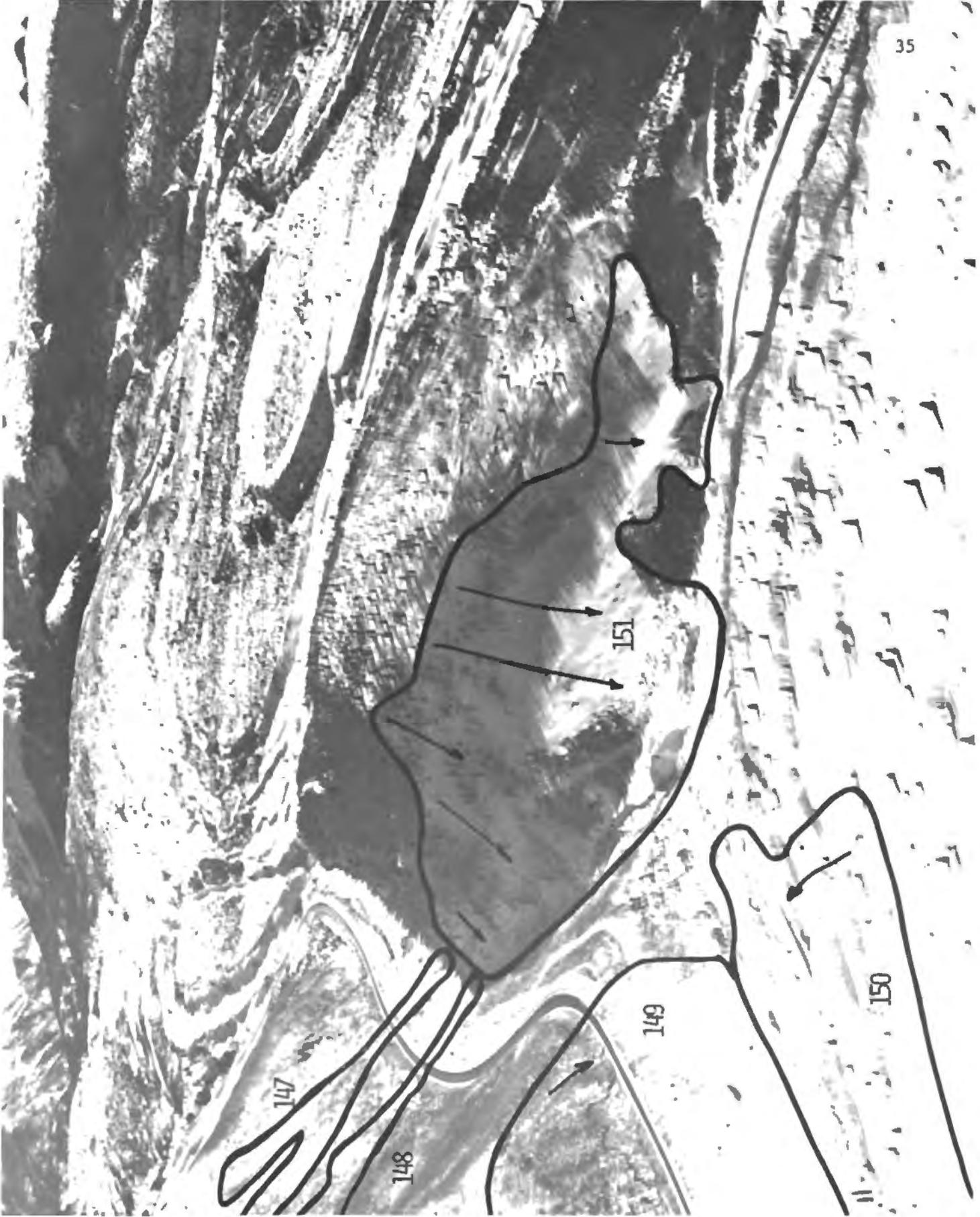
TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope topped by cliff band with talus below, light aspen and coniferous

Track: Broad open slope, talus

Runout Zone: Broad open slope, talus with moderate coniferous, grass and willows below

HISTORY: III. events: 24
highway: 0
full-track: 2



Avalanche Summary Sheet

PATH NAME ('s): Deer Creek North

Path Reference Number: 152152 Zone: I Area: 4

Map Number: 7 Photograph Number: 36

SPECIFICATIONS:

Top Elev.: 9920' Bottom Elev.: 9840' Vertical Fall: 80'

Length of Path: 128' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45^o</u>	<u>--</u>	<u>0</u>
Area Acres	<u>1.6</u>	Mean Width <u>400'</u>	Area Acres <u>.12</u>
		Length <u>100'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, exposed boulders, bedrock and bare ground

Track: Broad open slope, exposed boulders, bedrock and bare ground

Runout Zone: Broad open slope, exposed boulders, bedrock and bare ground

HISTORY: III. events: 2
highway: 0
full-track: 0

Avalanche Summary Sheet

PATH NAME ('s): Deer Creek South

Path Reference Number: 152153 Zone: I Area: 4

Map Number: 7 Photograph Number: 36

SPECIFICATIONS:

Top Elev.: 10160' Bottom Elev.: 9890' Vertical Fall: 270'

Length of Path: 525' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>22°</u>	<u>34°</u>	<u>22°</u>
Area Acres	<u>2.5</u>	Mean Width <u>1200</u>	Area Acres <u>6</u>
		Length <u>361</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open bowl-shaped depression, talus, moderate coniferous, light aspen and grass

Track: Broad open depression, talus, moderate coniferous, light aspen and grass

Runout Zone: Bed of Deer Creek

HISTORY: III. events: 8
highway: 2
full-track: 2



Avalanche Summary Sheet

PATH NAME ('s): Swamp

Path Reference Number: 152154 Zone: I Area: 3

Map Number: 7,8 Photograph Number: 36,37,38

SPECIFICATIONS:

Top Elev.: 10600' Bottom Elev.: 10100' Vertical Fall: 500'

Length of Path: 860' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39^o</u>	<u>39^o</u>	<u>9^o</u>
Area Acres	<u>3.5</u>	Mean Width <u>400</u>	Area Acres <u>7</u>
		Length <u>325</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope with shallow v-shaped depression near center, moderate aspen, light coniferous, grass and bare ground

Track: Broad open slope with shallow v-shaped depression near center, midtrack rockband, moderate aspen and small coniferous, grass and bare ground

Runout Zone: Broad open slope, moderate small coniferous and grass

HISTORY: II. crossed highway: 17

III. events: 12
highway: 1
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Henry Brown

Path Reference Number: 152155 Zone: I Area: 3

Map Number: 7,8 Photograph Number: 36-38

SPECIFICATIONS:

Top Elev.: 10400' Bottom Elev.: 10100' Vertical Fall: 300'

Length of Path: 670' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>27°</u>	<u>15°</u>	<u>16°</u>
Area Acres	<u>1</u>	Mean Width <u>200'</u>	Area Acres <u>4</u>
		Length <u>621'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope with shallow depression to the north, light talus, moderate aspen and grass

Track: Broad open slope with shallow depression to the north, exposed bedrock and talus, light small coniferous and grass

Runout Zone: Broad open slope, talus, bare ground and grass

HISTORY: II. crossed highway: 4

III. events: 24
highway: 10
full-track: 8

Avalanche Summary Sheet

PATH NAME ('s): Coal Bank

Path Reference Number: 152156 Zone: I Area: 3

Map Number: 7,8 Photograph Number: 37,38

SPECIFICATIONS:

Top Elev.: 10280' Bottom Elev.: 10200' Vertical Fall: 80'

Length of Path: 128' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>--</u>	<u>0</u>
Area Acres	<u>4</u>	Mean Width <u>--</u>	Area Acres <u>1</u>
		Length <u>--</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad bowl-shaped depression, exposed bedrock and talus, moderate aspen, grass and bare ground

Track: Broad bowl-shaped depression, exposed bedrock bands, grass and bare ground

Runout Zone: Broad open slope, talus, bare ground with willows and grass below

HISTORY: II. crossed highway: 19

III. events: 1
highway: 0
full-track: 1



Avalanche Summary Sheet

PATH NAME ('s): Coal Creek East

Path Reference Number: 152157 Zone: I Area: 2

Map Number: 8 Photograph Number: 37,38

SPECIFICATIONS:

Top Elev.: 10500' Bottom Elev.: 10300' Vertical Fall: 120'

Length of Path: 156' Number of Starting Zones: 4

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>54^o</u>	<u>--</u>	<u>0</u>
Area Acres	<u>2</u>	Mean Width <u>--</u>	Area Acres <u>.4</u>
		Length <u>--</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Shallow depression, light coniferous, grass and bare ground

Track: Broad open slope, exposed bedrock, boulders, road cut and bare ground

Runout Zone: Broad open slope, boulders, brush and bare ground

HISTORY: II. (157 and 158)
crossed highway: 11

III. events: 7
highway: 1
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Coal Creek West

Path Reference Number: 152158 Zone: I Area: 2

Map Number: 8 Photograph Number: 38

SPECIFICATIONS:

Top Elev.: 10760' Bottom Elev.: 10300' Vertical Fall: 460'

Length of Path: 1011' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>26^o</u>	<u>23^o</u>	<u>39^o</u>
Area Acres	<u>1</u>	Mean Width <u>100'</u>	Area Acres <u>2</u>
		Length <u>762'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

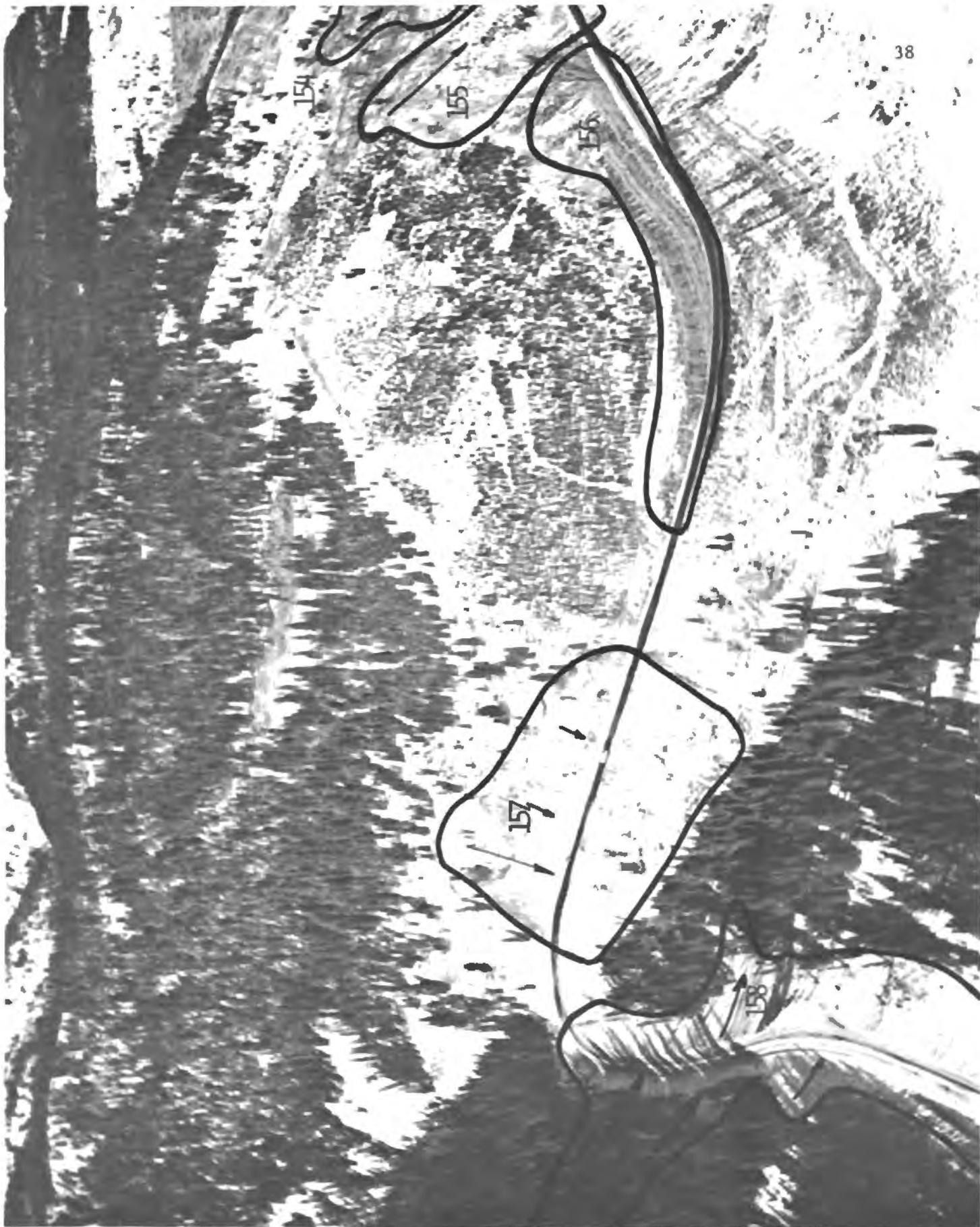
Starting Zone: Broad open slope, exposed vertical bands of bedrock, moderate coniferous and grass

Track: Broad open slope, exposed vertical bands of bedrock, light coniferous, grass and bare ground

Runout Zone: Broad open slope, heavy coniferous and grass

HISTORY: II. (157 and 158)
crossed highway: 11

III. events: 10
highway: 2
full-track: 5



Avalanche Summary Sheet

PATH NAME ('s): Engineer Mtn. A

Path Reference Number: 152159 Zone: I Area: 1

Map Number: 8 Photograph Number: 39

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 10600' Vertical Fall: 600'

Length of Path: 1342' Number of Starting Zones: 5

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45^o</u>	<u>34^o</u>	<u>18^o</u>
Area Acres	<u>4.5</u>	Mean Width <u>500'</u>	Area Acres <u>6</u>
		Length <u>361'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, exposed rock bands, grass and bare ground

Track: Broad open slope, few exposed boulders, light coniferous and grass

Runout Zone: Broad v-shaped depression, light boulders and grass

HISTORY: II. (Engineer Mt.)
crossed highway: 7

III. events: 24
highway: 0
full-track: 6

Avalanche Summary Sheet

PATH NAME ('s): Engineer Mtn. B

Path Reference Number: 152160 Zone: I Area: 1

Map Number: 8 Photograph Number: 39

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 10600' Vertical Fall: 600'

Length of Path: 1342' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>53°</u>	<u>45°</u>	<u>14°</u>
Area Acres	<u>1</u>	Mean Width <u>100'</u>	Area Acres <u>2</u>
		Length <u>283'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope with shallow depressions, exposed rock bands, cliffs, grass

Track: Broad open slope with shallow depressions, grass

Runout Zone: Broad open slope, light boulders, grass with moderate coniferous below

HISTORY: II. (Engineer Mt.)
crossed highway: 7

III. events: 32
highway: 0
full-track: 11

Avalanche Summary Sheet

PATH NAME ('s): Engineer Mtn. C

Path Reference Number: 152161 Zone: I Area: 1

Map Number: 8 Photograph Number: 39

SPECIFICATIONS:

Top Elev.: 11400' Bottom Elev.: 10600' Vertical Fall: 800'

Length of Path: 1878' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>53°</u>	<u>58°</u>	<u>27°</u>
Area Acres	<u>1.5</u>	Mean Width <u>100'</u>	Area Acres <u>1</u>
		Length <u>472'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope with shallow depressions, exposed rock bands, cliffs, grass

Track: Broad open slope with shallow depressions, exposed rock bands and grass

Runout Zone: Broad open slope, light boulders, grass with moderate coniferous below

HISTORY: II. (Engineer Mt.)
crossed highway: 7

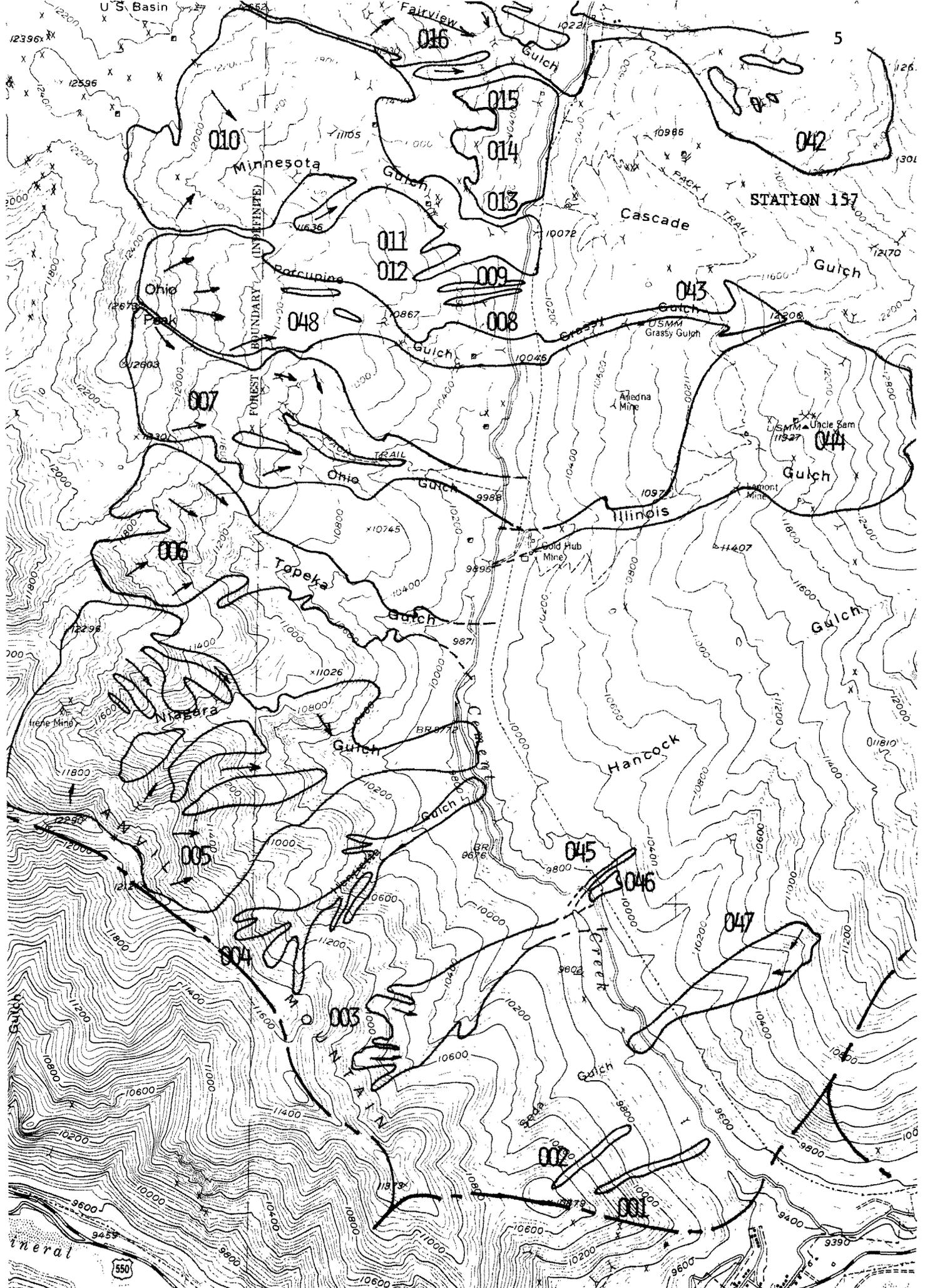
III. events: 24
highway: 0
full-track: 10



SECTION VI

Cement Creek
Colorado Highway 110

Avalanche paths: 157001 - 157049



U.S. Basin

Fairview Gulch

5

010

016

015

014

013

042

Minnesota

011

012

009

008

043

STATION 157

Ohio Peak

048

007

Parcupine

FOREST BOUNDARY (UNDEFINITE)

Ohio

TRAIL

Topeka

Gulch

Cascade TRAIL

Grassy Gulch

Aledna Mine

USMM

Grassy Gulch

USMM

Uncle Sam Mine

USMM

Grassy Gulch

Lamont Mine

Grassy Gulch

Hancock

Grassy Gulch

045

046

047

048

049

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052

053

STOCK BR

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Avalanche Summary Sheet

PATH NAME ('s): Pt. 10899

Path Reference Number: 157001 Zone: V Area: 1

Map Number: 5 Photograph Number: 43

SPECIFICATIONS:

Top Elev.: 10400' Bottom Elev.: 9440' Vertical Fall: 9439'

Length of Path: 2178' Number of Starting Zones: 1

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>45°</u>		<u>31°</u>		<u>16°</u>
Area Acres	<u>1</u>	Mean Width	<u>100'</u>	Area Acres	<u>3</u>
		Length	<u>1167'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow depression, small rock outcrops and grass

Track: Narrow shallow depression, light aspen and grass

Runout Zone: Broad open slope, light coniferous and aspen and grass

HISTORY:

Avalanche Summary Sheet

PATH NAME ('s): Scotch

Path Reference Number: 157002 Zone: V Area: 1

Map Number: 5 Photograph Number: 43

SPECIFICATIONS:

Top Elev.: 10800' Bottom Elev.: 9840' Vertical Fall: 960'

Length of Path: 1739' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>31°</u>	<u>22°</u>
Area Acres	<u>1</u>	Mean Width <u>100'</u>	Area Acres <u>3</u>
		Length <u>1167'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

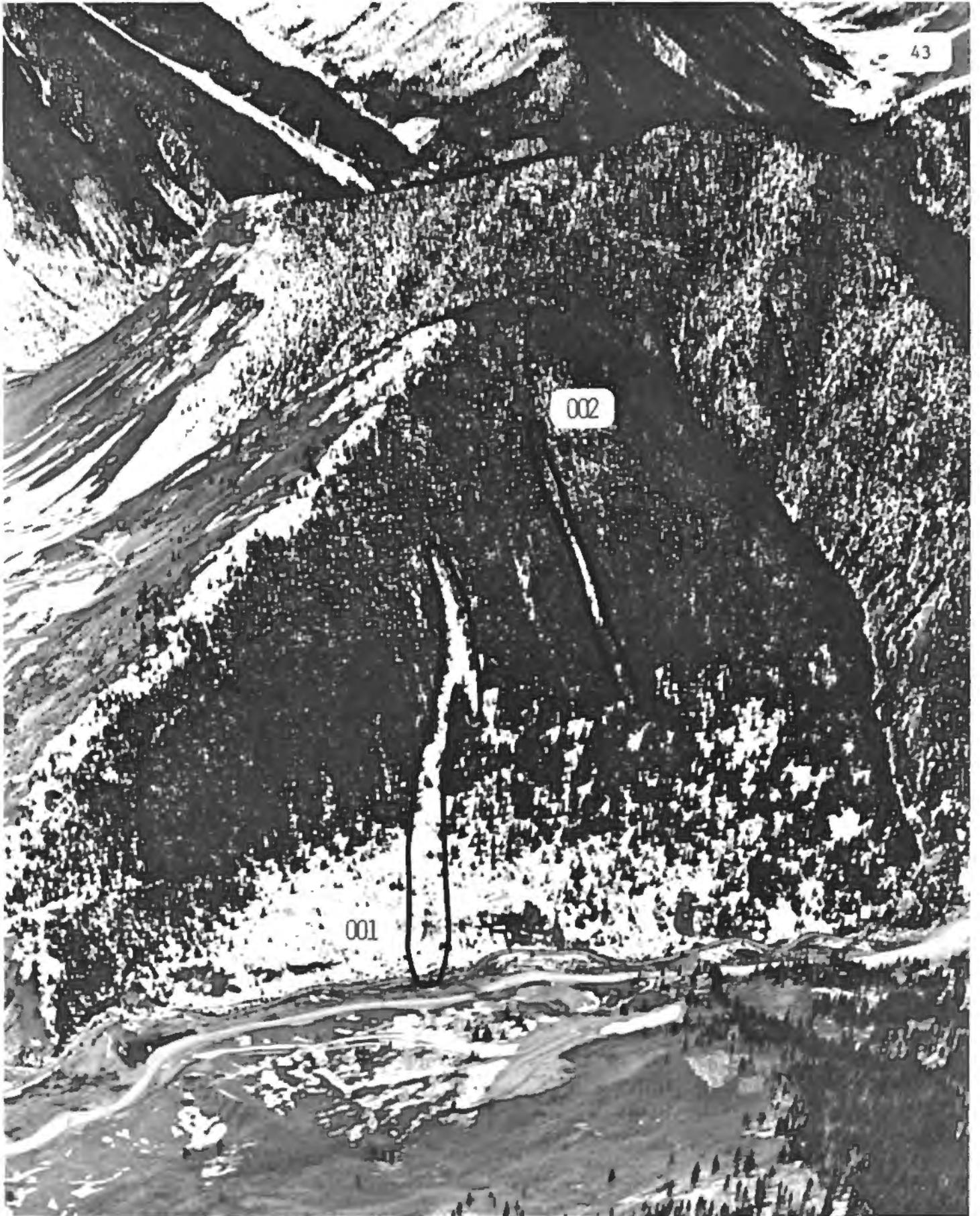
TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow shallow gully with medium to heavy coniferous and grass.

Track: narrow shallow gully with grass.

Runout Zone: Medium to heavy timber.

HISTORY:



43

002

001

Avalanche Summary Sheet

PATH NAME ('s): Bend

Path Reference Number: 157003 Zone: V Area: 1

Map Number: 5 Photograph Number: --

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 9600' Vertical Fall: 1400'

Length of Path: 4546' Number of Starting Zones: 7

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>30°</u>	<u>20°</u>	<u>13°</u>
Area Acres	<u>8</u>	Mean Width <u>200'</u>	Area Acres <u>10</u>
		Length <u>2660'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad v-shaped basin, moderate to heavy coniferous, north portion: bare ground and rock

Track: V-shaped depression, moderate coniferous

Runout Zone: Open slope, moderate coniferous and grass

HISTORY:

Avalanche Summary Sheet

PATH NAME ('s): Henrietta Gulch

Path Reference Number: 157004 Zone: V Area: 1

Map Number: 5 Photograph Number: 44,45

SPECIFICATIONS:

Top Elev.: 11600' Bottom Elev.: 9700' Vertical Fall: 1900'

Length of Path: 4955' Number of Starting Zones: 8

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>23°</u>	<u>13°</u>
Area Acres	<u>8</u>	Mean Width <u>100'</u>	Area Acres <u>10</u>
		Length <u>3259'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad v-shaped basin, heavy coniferous; small light coniferous and grass in lightly vegetated side gullies

Track: Narrows to v-shaped gully, small light coniferous and grass

Runout Zone: Broad open slope, moderate to heavy coniferous, aspen and grass

HISTORY: III. events: 1
highway: 0
full-track: 0



Avalanche Summary Sheet

PATH NAME ('s): Irene

Path Reference Number: 157005 Zone: V Area: 2

Map Number: 5 Photograph Number: 44,45,46

SPECIFICATIONS:

Top Elev.: 12400' Bottom Elev.: 9800' Vertical Fall: 2600'

Length of Path: 6641' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>25°</u>	<u>11°</u>
Area Acres	<u>50</u>	Mean Width <u>400'</u>	Area Acres <u>45</u>
		Length <u>3761'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

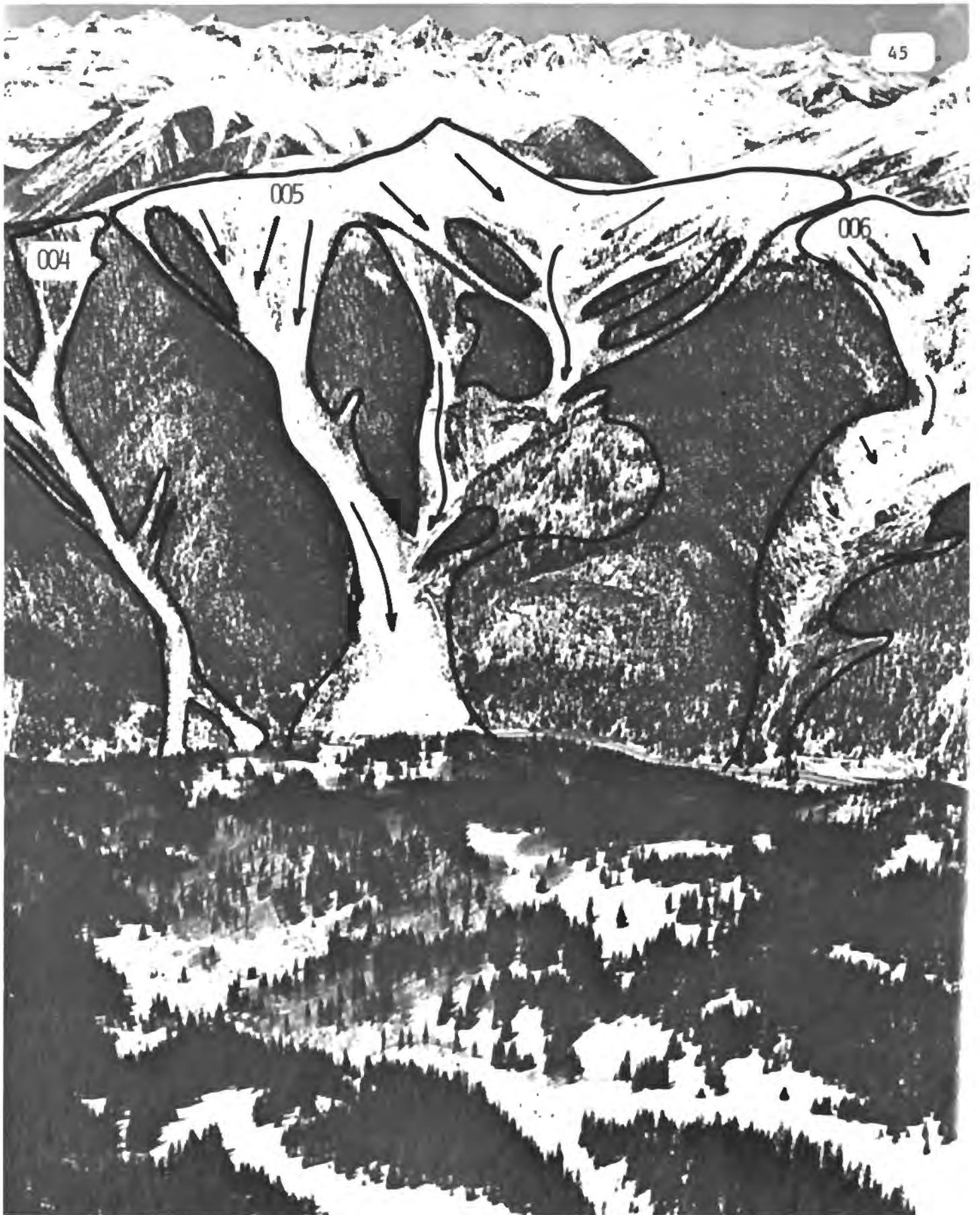
Starting Zone: Broad basin with v-shaped depression, light to moderate large and small coniferous, rock outcrops, grass and bare ground

Track: Narrows to v-shaped gully, light small coniferous, grass and bare ground

Runout Zone: Broad open slope, light coniferous and grass

HISTORY: I. February, 1905, first ski fatality by an avalanche in San Juan County occurred at the Irene Mine

III. events: 6
highway: 0
full-track: 0



Avalanche Summary Sheet

PATH NAME ('s): Topeka Gulch

Path Reference Number: 157006 Zone: V Area: 2

Map Number: 5 Photograph Number: 45,46

SPECIFICATIONS:

Top Elev.: 12000' Bottom Elev.: 9900' Vertical Fall: 2100'

Length of Path: 6638' Number of Starting Zones: Multiple

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>39°</u>		<u>17°</u>		<u>11°</u>
Area Acres	<u>45</u>	Mean Width	<u>200'</u>	Area Acres	<u>24</u>
		Length	<u>4158'</u>		
Tree Line	<u>A</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open basin, rock outcrops and grass

Track: Narrows to depression with small light coniferous, small rock outcrops, grass and bare ground

Runout Zone: Heavy coniferous and aspen

HISTORY:



Avalanche Summary Sheet

PATH NAME ('s): Ohio Gulch

Path Reference Number: 157007 Zone: V Area: 2

Map Number: 5 Photograph Number: 46,47

SPECIFICATIONS:

Top Elev.: 12600' Bottom Elev.: 9980' Vertical Fall: 2620'

Length of Path: 7762' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>43°</u>	<u>23°</u>	<u>9°</u>
Area Acres	<u>48</u>	Mean Width <u>200'</u>	Area Acres <u>36</u>
		Length <u>4780'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open knoll, large rock outcrops, light small coniferous

Track: V-shaped gully, bare ground

Runout Zone: Broad open slope, heavy coniferous

HISTORY:

Avalanche Summary Sheet

PATH NAME ('s): Porcupine Gulch

Path Reference Number: 157048 Zone: V Area: 2

Map Number: 5 Photograph Number: 47

SPECIFICATIONS:

Top Elev.: 12600' Bottom Elev.: 10050' Vertical Fall: 2550'

Length of Path: 6690' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>20°</u>	<u>14°</u>
Area Acres	<u>18</u>	Mean Width <u>200'</u>	Area Acres <u>15</u>
		Length <u>4257'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

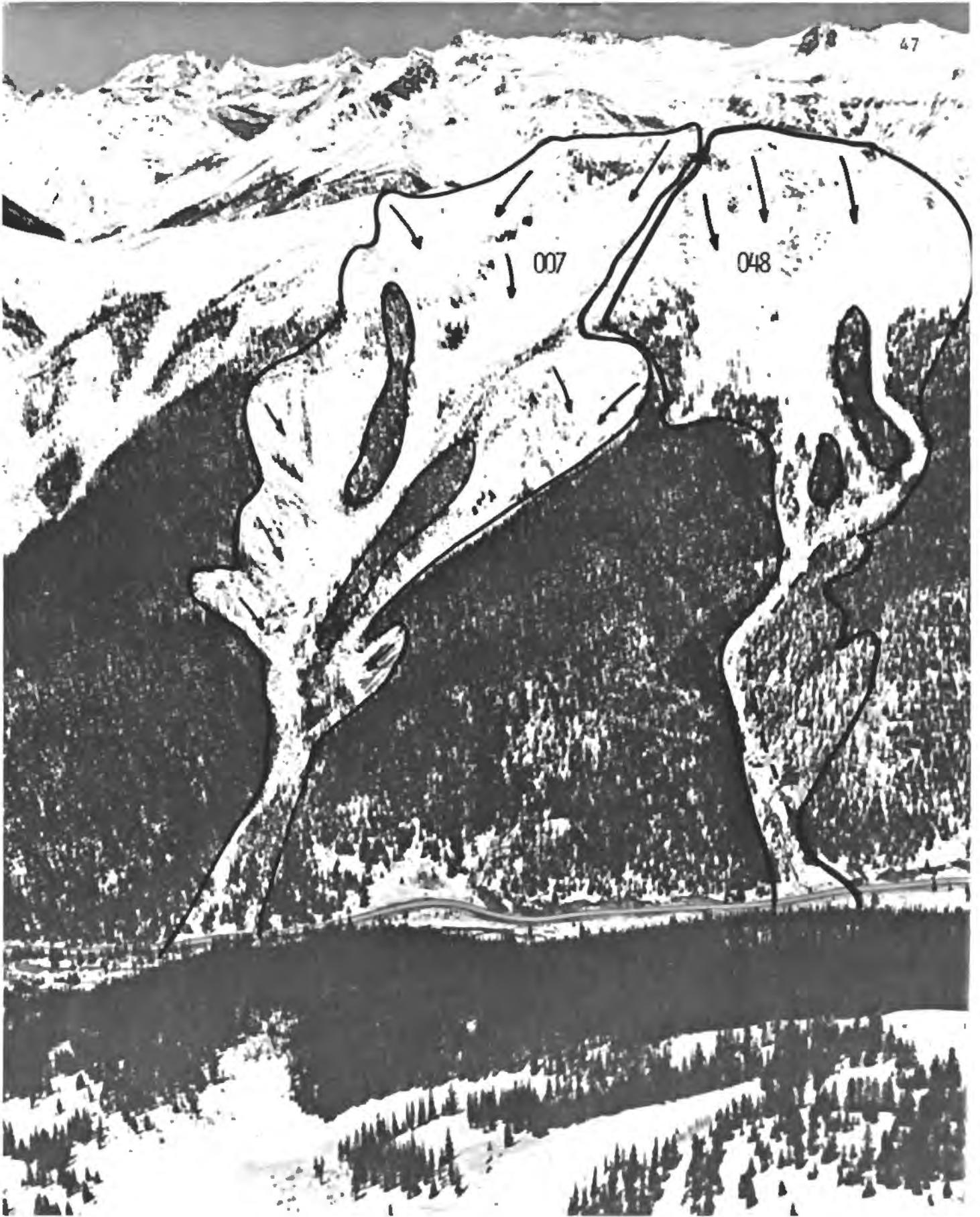
TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, numerous gullies, rock outcrops, and talus.

Track: V-gulley, two bends with rock outcrops, light coniferous, willows and grass.

Runout Zone: Narrow open talus slope with grass. Crosses highway, creek then up adverse slope.

HISTORY:



Avalanche Summary Sheet

PATH NAME ('s): Red Point South

Path Reference Number: 157008 Zone: V Area: 3

Map Number: 5 Photograph Number: 48

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 10000' Vertical Fall: 1000'

Length of Path: 1369' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>34°</u>	<u>11°</u>
Area Acres	<u>1</u>	Mean Width <u>50'</u>	Area Acres <u>2</u>
		Length <u>724'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow path, light small coniferous and grass

Track: Narrow path, light small coniferous and grass

Runout Zone: Cone-shaped fan, light coniferous, grass and bare ground

HISTORY: III. events: 1
highway: 1
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Red Point North

Path Reference Number: 157009 Zone: V Area: 3

Map Number: 5 Photograph Number: 48

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 10000' Vertical Fall: 1000'

Length of Path: 1595' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>34°</u>	<u>11°</u>
Area Acres	<u>1</u>	Mean Width <u>50'</u>	Area Acres <u>2</u>
		Length <u>724°</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow path, light small coniferous and grass

Track: Narrow path, light small coniferous and grass

Runout Zone: Broad open slope, grass and bare ground

HISTORY: III. events: 1
highway: 0
full-track: 0

Avalanche Summary Sheet

PATH NAME ('s): Minnesota Gulch

Path Reference Number: 157010 Zone: V Area: 3

Map Number: 5, 6 Photograph Number: 48

SPECIFICATIONS:

Top Elev.: 12400' Bottom Elev.: 10000' Vertical Fall: 2400'

Length of Path: 7434' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>19°</u>	<u>18°</u>
Area Acres	<u>80</u>	Mean Width <u>200'</u>	Area Acres <u>40</u>
		Length <u>4336'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open basin with several depressions, rock outcrops and grass

Track: V-shaped gully, rock, moderate coniferous and bare ground

Runout Zone: Broad fan, light small coniferous and grass

HISTORY: III. events: 3
highway: 0
full-track: 0

Avalanche Summary Sheet

PATH NAME ('s): Minneapolis

Path Reference Number: 157011 Zone: V Area: 3

Map Number: 5 Photograph Number: 48

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 10000' Vertical Fall: 1000'

Length of Path: 11700' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>34°</u>	<u>18°</u>
Area Acres	<u>1</u>	Mean Width <u>50'</u>	Area Acres <u>2</u>
		Length <u>362'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow depression, moderate coniferous

Track: Narrow depression, moderate coniferous

Runout Zone: Open slope, moderate small coniferous and grass

HISTORY:

Avalanche Summary Sheet

PATH NAME ('s): St. Paul

Path Reference Number: 157012 Zone: V Area: 3

Map Number: 5 Photograph Number: 48

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 10000' Vertical Fall: 1200'

Length of Path: 1305' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>34°</u>	<u>18°</u>
Area Acres	<u>1</u>	Mean Width <u>50'</u>	Area Acres <u>2</u>
		Length <u>603'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow depression, moderate coniferous

Track: Narrow depression, moderate coniferous

Runout Zone: Open slope, moderate small coniferous and grass

HISTORY:

Avalanche Summary Sheet

PATH NAME ('s): Bad Number

Path Reference Number: 157013 Zone: V Area: 3

Map Number: 5,6 Photograph Number: 48

SPECIFICATIONS:

Top Elev.: 10800' Bottom Elev.: 10000' Vertical Fall: 800'

Length of Path: 1242' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>39°</u>	<u>18°</u>
Area Acres	<u>1</u>	Mean Width <u>200'</u>	Area Acres <u>5</u>
		Length <u>643'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, cliffs, rock outcrops, light to moderate coniferous

Track: Open slope, light coniferous, talus and grass

Runout Zone: Broad open slope, light small coniferous

HISTORY: III. events: 1
highway: 0
full-track: 0

Avalanche Summary Sheet

PATH NAME ('s): Michigan

Path Reference Number: 157015 Zone: V Area: 3

Map Number: 6,7 Photograph Number: 48

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 10100' Vertical Fall: 1100'

Length of Path: 2041' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>37°</u>	<u>18°</u>
Area Acres	<u>2</u>	Mean Width <u>300'</u>	Area Acres <u>15</u>
		Length <u>1127'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope broken by large rock outcrops and cliffs, light coniferous and grass

Track: Shallow gully, rock outcrops and scree in upper portion; lower portion: willows, light small coniferous

Runout Zone: Broad fan, light coniferous and bare ground

HISTORY: III. events: 2
 highway: 1
 full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Fairview

Path Reference Number: 157016 Zone: V Area: 3

Map Number: 5,6 Photograph Number: 48,49

SPECIFICATIONS:

Top Elev.: 12600' Bottom Elev.: 10100' Vertical Fall: 2500'

Length of Path: 5018' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>25°</u>	<u>16°</u>
Area Acres	<u>42</u>	Mean Width <u>300'</u>	Area Acres <u>36</u>
		Length <u>2869'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: South portion: broad depression, small rock outcrops and grass; north portion: broad basin, large rock outcrops, cliffs, talus and grass

Track: South portion: broad shallow depression, small rock outcrops and grass; north portion: broad v-shaped gully, large rock outcrops, light small coniferous and grass

Runout Zone: Broad fan with several depressions, grass

HISTORY: I. 1929, took out power poles across Highway 110

III. events: 5
highway: 0
full-track: 5



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Avalanche Summary Sheet

PATH NAME ('s): Beatles

Path Reference Number: 157017 Zone: V Area: 3

Map Number: 6 Photograph Number: 49

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 10100' Vertical Fall: 900'

Length of Path: 1587' Number of Starting Zones: 6

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>31°</u>	<u>14°</u>
Area Acres	<u>1</u>	Mean Width <u>100'</u>	Area Acres <u>2</u>
		Length <u>933'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, large rock outcrops, cliffs, light coniferous

Track: Open slope with light small coniferous, scree and willows

Runout Zone: Broad open slope with light small coniferous, scree and willows

HISTORY: III. events: 3
highway: 0
full-track: 2

Avalanche Summary Sheet

PATH NAME ('s): Stones

Path Reference Number: 157018 Zone: V Area: 3

Map Number: 6 Photograph Number: 49

SPECIFICATIONS:

Top Elev.: 11500' Bottom Elev.: 10100' Vertical Fall: 1400'

Length of Path: 1442' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>39°</u>	<u>14°</u>
Area Acres	<u>2</u>	Mean Width <u>200'</u>	Area Acres <u>5</u>
		Length <u>901'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slope, large rock outcrops and cliffs, light coniferous

Track: Open slope with light small coniferous, scree and willows

Runout Zone: Broad open slope with light small coniferous, scree and willows

HISTORY: III. events: 3
highway: 0
full-track: 2

Avalanche Summary Sheet

PATH NAME ('s): Who

Path Reference Number: 157019 Zone: V Area: 3

Map Number: 6 Photograph Number: 49

SPECIFICATIONS:

Top Elev.: 11500' Bottom Elev.: 10200' Vertical Fall: 1300'

Length of Path: 2704' Number of Starting Zones: Multiple

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>34°</u>		<u>34°</u>		<u>14°</u>
Area Acres	<u>6</u>	Mean Width	<u>200'</u>	Area Acres	<u>12</u>
		Length	<u>1809'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, light coniferous and grass

Track: Shallow depression, light small coniferous and grass

Runout Zone: Broad open slope, light grass and bare ground

HISTORY: III. events: 2
 highway: 0
 full-track: 2

Avalanche Summary Sheet

PATH NAME ('s): Creme

Path Reference Number: 157020 Zone: V Area: 3

Map Number: 6 Photograph Number: 49

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 10200' Vertical Fall: 800'

Length of Path: 1080' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>30°</u>	<u>27°</u>	<u>14°</u>
Area Acres	<u>5</u>	Mean Width <u>200'</u>	Area Acres <u>5</u>
		Length <u>449'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: V-shaped depression, light small coniferous and grass

Track: V-shaped shallow depression, small rocks and grass

Runout Zone: Broad open slope, moderate coniferous and grass

HISTORY: III. events: 3
highway: 0
full-track: 2

Avalanche Summary Sheet

PATH NAME ('s): Georgia Gulch

Path Reference Number: 157021 Zone: V Area: 3

Map Number: 6 Photograph Number: 49

SPECIFICATIONS:

Top Elev.: 12800' Bottom Elev.: 10200' Vertical Fall: 2600'

Length of Path: 6911' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>20°</u>	<u>14°</u>
Area Acres	<u>75</u>	Mean Width <u>200'</u>	Area Acres <u>25</u>
		Length <u>3512'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad shallow v-shaped depression, large rock outcrops and grass

Track: Upper portion: broad open slope with incised gullies, rock outcrops and light coniferous; lower portion: broad v-shaped depression, grass and bare ground

Runout Zone: Broad open fan, grass

HISTORY: I. February, 1886, nearly all cabins in Georgia Gulch destroyed

III. events: 2
highway: 0
full-track: 0

Avalanche Summary Sheet

PATH NAME ('s): Stump

Path Reference Number: 157022 Zone: V Area: 3

Map Number: 6 Photograph Number: 49

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 10200' Vertical Fall: 1000'

Length of Path: 1147' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>30°</u>	<u>22°</u>
Area Acres	<u>.5</u>	Mean Width <u>300'</u>	Area Acres <u>5</u>
		Length <u>462'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Shallow v-shaped depression, moderate coniferous and grass

Track: Shallow v-shaped depression, moderate coniferous and grass

Runout Zone: Broad cone-shaped fan, light coniferous and grass

HISTORY: III. events: 1
highway: 0
full-track: 0

Avalanche Summary Sheet

PATH NAME ('s): Prospect Gulch

Path Reference Number: 157023 Zone: V Area: 3

Map Number: 6 Photograph Number: 49

SPECIFICATIONS:

Top Elev.: 11600' Bottom Elev.: 10600' Vertical Fall: 1000'

Length of Path: 2396' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>34°</u>	<u>9° adv.</u>
Area Acres	<u>5</u>	Mean Width <u>100'</u>	Area Acres <u>8</u>
		Length <u>1689'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Shallow depression, moderate to heavy coniferous

Track: Narrow shallow depression, moderate small coniferous and grass

Runout Zone: Open slope, light small coniferous and bare ground

HISTORY: I. February 1884 and January 1886, Mineral King Mine damaged
February 1893, Galena Queen Mine damaged

Avalanche Summary Sheet

PATH NAME ('s): Black Jack

Path Reference Number: 157024 Zone: V Area: 3

Map Number: 6 Photograph Number: 49

SPECIFICATIONS:

Top Elev.: 12200' Bottom Elev.: 10800' Vertical Fall: 1400'

Length of Path: 2349' Number of Starting Zones: 4

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>24°</u>	<u>9° adv.</u>
Area Acres	<u>12</u>	Mean Width <u>150'</u>	Area Acres <u>6</u>
		Length <u>1642'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope with shallow depression, rock outcrops and grass

Track: Open slope with shallow depression, rock outcrops and grass

Runout Zone: Open slope, light small coniferous and bare ground

HISTORY:



Avalanche Summary Sheet

PATH NAME ('s): Dump South

Path Reference Number: 157025 Zone: V Area: 4

Map Number: 6 Photograph Number: 50

SPECIFICATIONS:

Top Elev.: 11400' Bottom Elev.: 10300' Vertical Fall: 1100'

Length of Path: 1550' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>34°</u>	<u>15°</u>
Area Acres	<u>.5</u>	Mean Width <u>100'</u>	Area Acres <u>1</u>
		Length <u>1086'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Shallow depression, moderate coniferous and grass

Track: Shallow depression, light small coniferous and grass

Runout Zone: Open fan, small rocks and grass

HISTORY: III. events: 1
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Dump North

Path Reference Number: 157026 Zone: V Area: 4

Map Number: 6 Photograph Number: 50

SPECIFICATIONS:

Top Elev.: 11400' Bottom Elev.: 10300' Vertical Fall: 1100'

Length of Path: 1533' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>34°</u>	<u>15°</u>
Area Acres	<u>.5</u>	Mean Width <u>200'</u>	Area Acres <u>1</u>
		Length <u>965'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Shallow depression, moderate small aspen and grass

Track: Shallow rounded gully; upper portion: light small coniferous;
lower portion; convex mine dump, talus and bare ground

Runout Zone: talus cone

HISTORY: III. events: 1
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Dry Gulch North

Path Reference Number: 157027 Zone: V Area: 4

Map Number: 6 Photograph Number: 50

SPECIFICATIONS:

Top Elev.: 11600' Bottom Elev.: 10400' Vertical Fall: 1200'

Length of Path: 7959' Number of Starting Zones: 17

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>16°</u>	<u>11°</u>
Area Acres	<u>35</u>	Mean Width <u>250'</u>	Area Acres <u>18</u>
		Length <u>5930'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open slopes above timberline, grass, talus; numerous rocky depressions with light coniferous and grass below timberline.

Track: V-shaped gully, light small coniferous, grass and bare ground

Runout Zone: Incised broad fan, light small coniferous, small rocks and grass

HISTORY: III. events: 4
highway: 1
full-track: 3

Avalanche Summary Sheet

PATH NAME ('s): West Jump A

Path Reference Number: 157028 Zone: V Area: 5

Map Number: 6 Photograph Number: 50

SPECIFICATIONS:

Top Elev.: 11600' Bottom Elev.: 10400' Vertical Fall: 1200'

Length of Path: 1976' Number of Starting Zones: 4

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>34°</u>	<u>11°</u>
Area Acres	<u>2</u>	Mean Width <u>100'</u>	Area Acres <u>3</u>
		Length <u>1206'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, moderate coniferous and grass

Track: Shallow depression, grass, willows and light small coniferous

Runout Zone: Open fan, small rocks and grass

HISTORY: II. crossed highway: 2

III. events: 2
highway: 1
full-track: 2

Avalanche Summary Sheet

PATH NAME ('s): West Jump B

Path Reference Number: 157029 Zone: V Area: 5

Map Number: 6 Photograph Number: 50,51

SPECIFICATIONS:

Top Elev.: 11600' Bottom Elev.: 10400' Vertical Fall: 1200'

Length of Path: 2236' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>34°</u>	<u>11°</u>
Area Acres	<u>2</u>	Mean Width <u>150'</u>	Area Acres <u>3</u>
		Length <u>1568'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

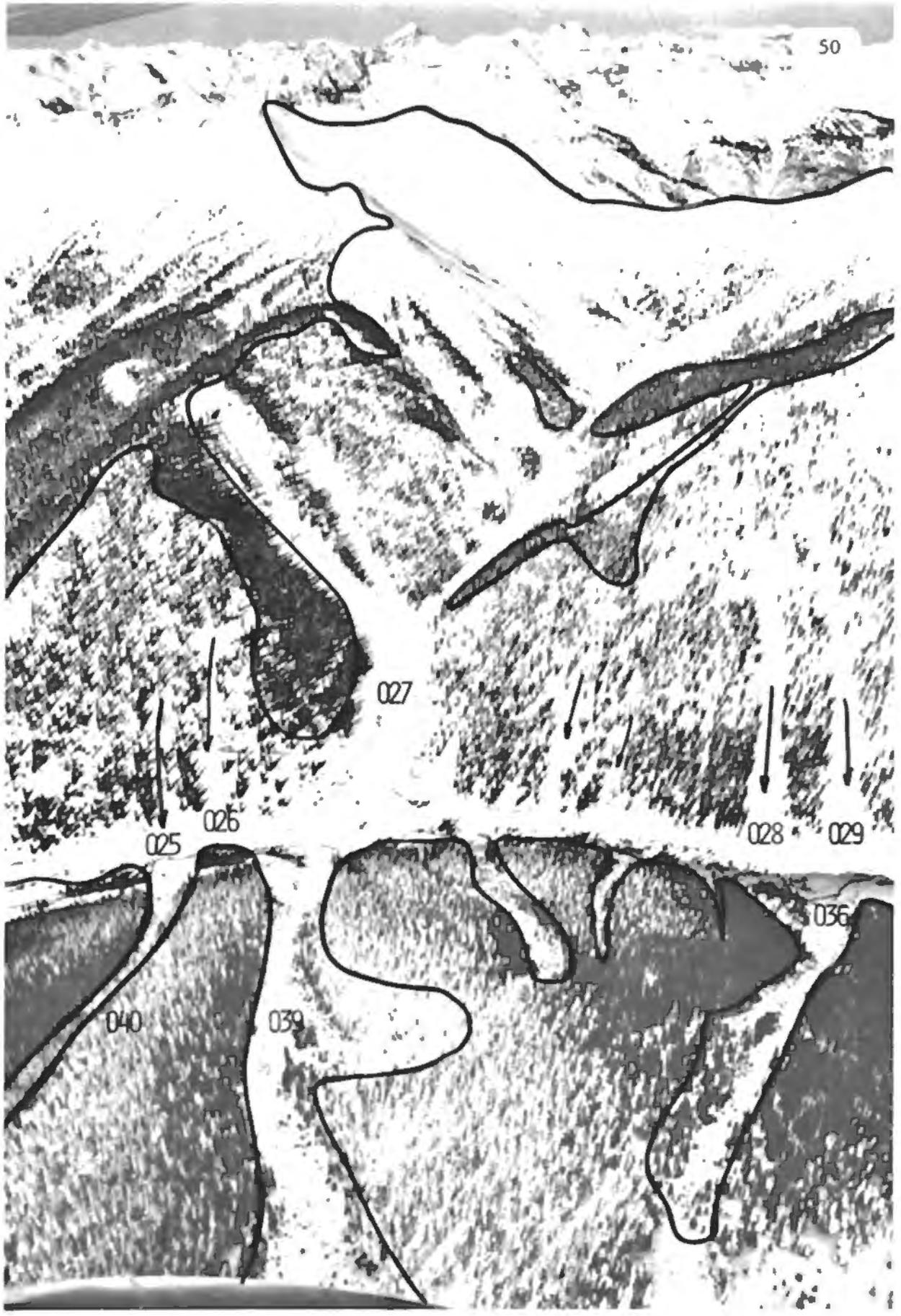
TERRAIN AND VEGETATION COVER:

Starting Zone: Shallow depression, moderate coniferous and grass

Track: Shallow depression, light small coniferous and grass

Runout Zone: Open fan, grass

HISTORY: III. events: 1
highway: 1
full-track: 1



Avalanche Summary Sheet

PATH NAME ('s): Mogul

Path Reference Number: 157030 Zone: V Area: 5

Map Number: 6 Photograph Number: 50,51

SPECIFICATIONS:

Top Elev.: 11800' Bottom Elev.: 10400' Vertical Fall: 1400'

Length of Path: 3873' Number of Starting Zones: 15

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>22°</u>	<u>11°</u>
Area Acres	<u>14</u>	Mean Width <u>250'</u>	Area Acres <u>9</u>
		Length <u>2696'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, grass and talus, some light small coniferous on lower zones.

Track: V-shaped depression, grass and small rock

Runout Zone: Broad open fan, grass

HISTORY: III. events: 2
highway: 1
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Florence

Path Reference Number: 157049 Zone: V Area: 5

Map Number: 6 Photograph Number: 51,52

SPECIFICATIONS:

Top Elev.: 11500' Bottom Elev.: 10450' Vertical Fall: 1050'

Length of Path: 2317' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>27°</u>	<u>11°</u>
Area Acres	<u>1</u>	Mean Width <u>100'</u>	Area Acres <u>2</u>
		Length <u>1459'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad slope with light coniferous, willows, aspen, and grass.

Track: Curving shallow gulley, with grass, aspen and willows.

Runout Zone: Broad open talus slope with grass, willows, and aspen.

HISTORY:



Avalanche Summary Sheet

PATH NAME ('s): Standard Mine

Path Reference Number: 157031 Zone: V Area: 7

Map Number: 6 Photograph Number: 52

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 10500' Vertical Fall: 500'

Length of Path: 896' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>24°</u>	<u>22°</u>
Area Acres	<u>.25</u>	Mean Width <u>50'</u>	Area Acres <u>.5</u> -
		Length <u>547'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Small grassy openings in medium to heavy coniferous.

Track: Shallow depression in medium coniferous, grassy.

Runout Zone: Mine buildings and service area.

HISTORY: III. events: 1
highway: 0
full-track: 1

Damaged mine buildings--1972



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Avalanche Summary Sheet

PATH NAME ('s): Colorado Slide

Path Reference Number: 157032 Zone: V Area: 8

Map Number: 6 Photograph Number: 52,53

SPECIFICATIONS:

Top Elev.: 12000' Bottom Elev.: 10500' Vertical Fall: 1500'

Length of Path: 3715' Number of Starting Zones: 8

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>30°</u>	<u>8°</u>
Area Acres	<u>4</u>	Mean Width <u>200'</u>	Area Acres <u>10</u>
		Length <u>2425'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

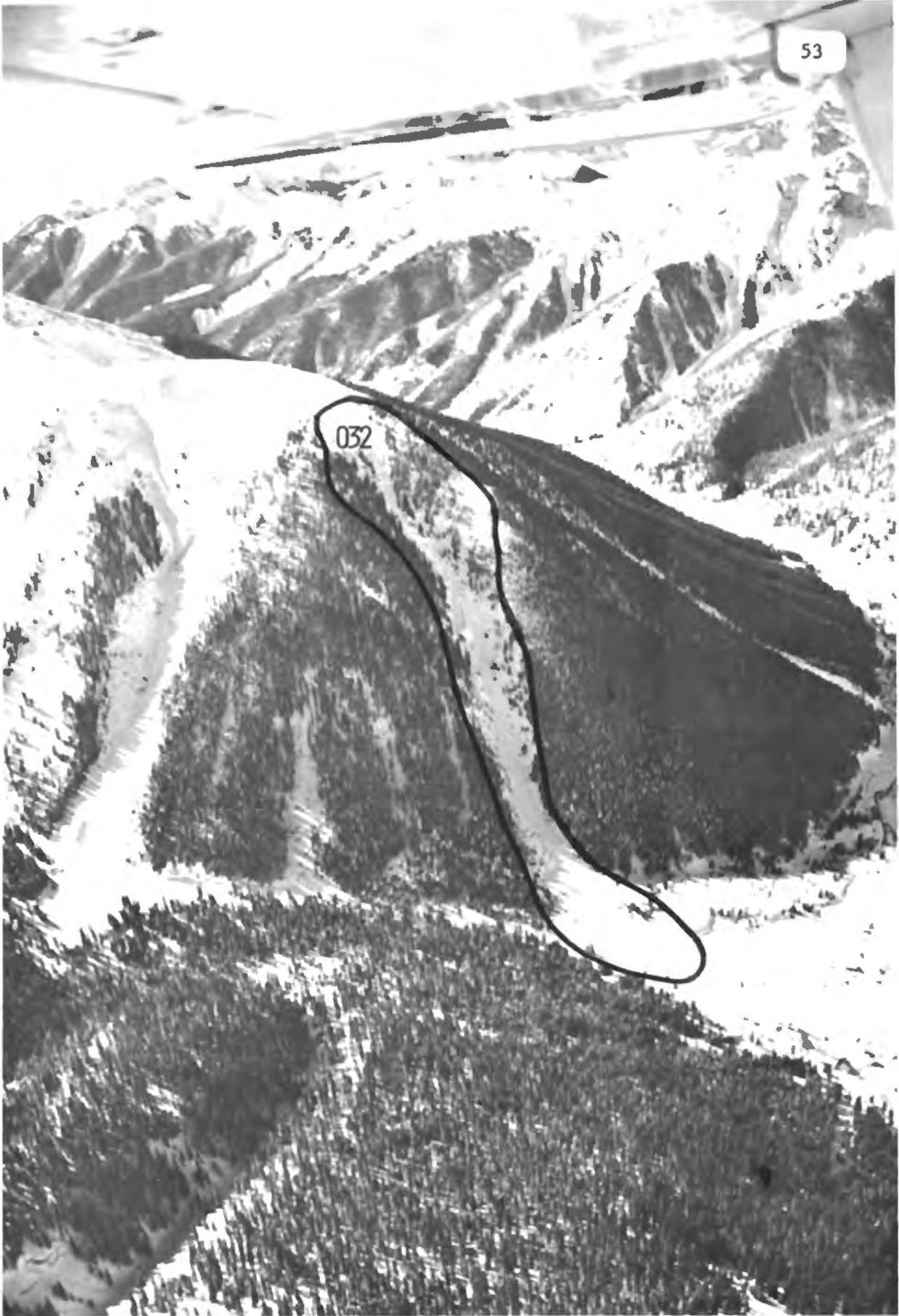
TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, light small coniferous and grass

Track: Shallow depression, light small coniferous, grass, willows and rock outcrops

Runout Zone: Broad open slope, grass and light small coniferous

HISTORY: III. events: 1
highway: 0
full-track: 1



Avalanche Summary Sheet

PATH NAME ('s): Thread

Path Reference Number: 157033 Zone: v Area: 9

Map Number: 6 Photograph Number: 54

SPECIFICATIONS:

Top Elev.: 10900' Bottom Elev.: 10500' Vertical Fall: 400'

Length of Path: 1667' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>34°</u>	<u>11°</u>
Area Acres	<u>.5</u>	Mean Width <u>100'</u>	Area Acres <u>.5</u>
		Length <u>2895'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow depression, grass

Track: Narrow depression, grass

Runout Zone: Open slope, moderate to heavy coniferous

HISTORY: III. events: 1
highway: 0
full-track: 0

Avalanche Summary Sheet

PATH NAME ('s): String

Path Reference Number: 157034 Zone: V Area: 9

Map Number: 6 Photograph Number: 54

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 10400' Vertical Fall: 800'

Length of Path: 2010' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>34°</u>	<u>11°</u>
Area Acres	<u>1</u>	Mean Width <u>50'</u>	Area Acres <u>1</u>
		Length <u>947'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow depression, grass

Track: Narrow depression, grass

Runout Zone: Open slope, grass

HISTORY: III. events: 1
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Rope

Path Reference Number: 157035 Zone: v Area: 9

Map Number: 6 Photograph Number: 54

SPECIFICATIONS:

Top Elev.: 11500' Bottom Elev.: 10400' Vertical Fall: 1100'

Length of Path: 2539' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>30°</u>	<u>11°</u>
Area Acres	<u>3</u>	Mean Width <u>150'</u>	Area Acres <u>4</u>
		Length <u>1848'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow depression, grass

Track: Narrow depression, grass

Runout Zone: Open slope, grass

HISTORY: III. events: 1
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): East Jump

Path Reference Number: 157036 Zone: v Area: 9

Map Number: 6 Photograph Number: 54

SPECIFICATIONS:

Top Elev.: 11900' Bottom Elev.: 10400' Vertical Fall: 1500'

Length of Path: 2539' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>30°</u>	<u>11°</u>
Area Acres	<u>3</u>	Mean Width <u>150'</u>	Area Acres <u>4</u>
		Length <u>1848'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow open slope, light small coniferous and grass

Track: Shallow v-shaped depression, small rock outcrops, light small coniferous and grass

Runout Zone: Truncated open fan, light small coniferous and grass

HISTORY: III. events: 1
highway: 1
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): South-east Jump

Path Reference Number: 157037 Zone: V Area: 9

Map Number: 6 Photograph Number: 54

SPECIFICATIONS:

Top Elev.: 11100' Bottom Elev.: 10400' Vertical Fall: 700'

Length of Path: 1248' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>30°</u>	<u>11°</u>
Area Acres	<u>2.5</u>	Mean Width <u>100'</u>	Area Acres <u>1.5</u>
		Length <u>924'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow open slope, light small coniferous and grass

Track: Shallow v-shaped depression, small rock outcrops, light small coniferous and grass

Runout Zone: Truncated open fan, light small coniferous and grass

HISTORY: III. events: 1
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Halftrack

Path Reference Number: 157038 Zone: V Area: 9

Map Number: 6 Photograph Number: 54

SPECIFICATIONS:

Top Elev.: 11200' Bottom Elev.: 10400' Vertical Fall: 800'

Length of Path: 1949' Number of Starting Zones: 3

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>30°</u>	<u>11°</u>
Area Acres	<u>.25</u>	Mean Width <u>100'</u>	Area Acres <u>.5</u>
		Length <u>1386'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Narrow shallow depression, light small coniferous and grass

Track: Shallow depression, light small coniferous and grass

Runout Zone: Open slope, grass

HISTORY: III. events: 1
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Dry Gulch South

Path Reference Number: 157039 Zone: V Area: 9

Map Number: 6 Photograph Number: 54

SPECIFICATIONS:

Top Elev.: 12000' Bottom Elev.: 10400' Vertical Fall: 1600'

Length of Path: 3715' Number of Starting Zones: 2

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>30°</u>	<u>24°</u>	<u>11°</u>
Area Acres	<u>5</u>	Mean Width <u>200'</u>	Area Acres <u>5</u>
		Length <u>2846'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

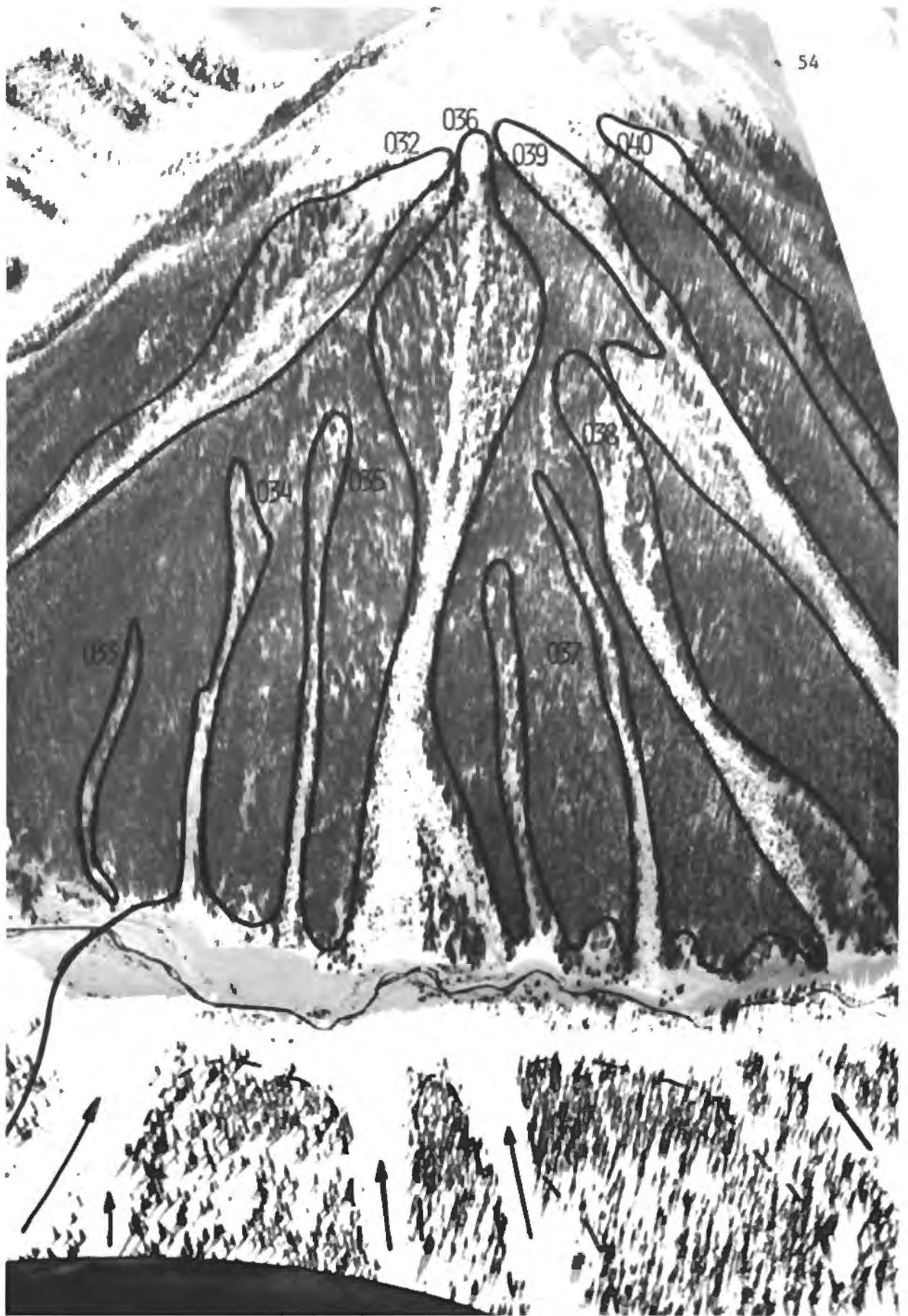
Starting Zone: Open slope, light small coniferous and grass

Track: Narrow depression, moderate small coniferous and grass

Runout Zone: Open fan, grass and scree

HISTORY: II. crossed highway: 1

III. events: 1
highway: 0
full-track: 1



Avalanche Summary Sheet

PATH NAME ('s): RMYF

Path Reference Number: 157040 Zone: V Area: 9

Map Number: 6 Photograph Number: 54,55,

SPECIFICATIONS:

Top Elev.: 11900' Bottom Elev.: 10400' Vertical Fall: 1500'

Length of Path: 3841' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>34°</u>	<u>24°</u>	<u>15°</u>
Area Acres	<u>4</u>	Mean Width <u>100'</u>	Area Acres <u>5</u>
		Length <u>3065'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open slope, light small coniferous and grass

Track: Narrow v-shaped gully, light small coniferous and grass

Runout Zone: Open incised truncated fan, grass

HISTORY: III. events: 1
highway: 0
full-track: 1

Avalanche Summary Sheet

PATH NAME ('s): Tiger gulch

Path Reference Number: 157041 Zone: V Area: 9

Map Number: 6 Photograph Number: 55,56

SPECIFICATIONS:

Top Elev.: 12200' Bottom Elev.: 10200' Vertical Fall: 2000'

Length of Path: 4995' Number of Starting Zones: 12

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>20°</u>	<u>14° adv.</u>
Area Acres	<u>20</u>	Mean Width <u>150'</u>	Area Acres <u>12</u>
		Length <u>3193'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad basin, large rock outcrops, talus and grass

Track: V-shaped gully, light small coniferous, grass and bare ground

Runout Zone: Broadening v-shaped depression ending in open fan, grass willows and bare ground

HISTORY:



Avalanche Summary Sheet

PATH NAME ('s): Billboard

Path Reference Number: 157042 Zone: V Area: 9

Map Number: 5,6 Photograph Number: 55,56

SPECIFICATIONS:

Top Elev.: 12800' Bottom Elev.: 10200' Vertical Fall: 2600'

Length of Path: 6023' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>45°</u>	<u>20°</u>	<u>14°</u>
Area Acres	<u>45</u>	Mean Width <u>200'</u>	Area Acres <u>8</u>
		Length <u>3937'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad open basin with numerous incised gullies and large rock outcrops

Track: V-shaped gully, large rock outcrops and bare ground

Runout Zone: Broad open fan, light small coniferous and grass

HISTORY: III. events: 3
highway: 1
full-track: 1



Avalanche Summary Sheet

PATH NAME ('s): Grassy Gulch

Path Reference Number: 157043 Zone: V Area: 10

Map Number: 5 Photograph Number: 57

SPECIFICATIONS:

Top Elev.: 12000' Bottom Elev.: 10000' Vertical Fall: 2000'

Length of Path: 4623' Number of Starting Zones: 4

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>24°</u>	<u>14°</u>
Area Acres	<u>5</u>	Mean Width <u>200'</u>	Area Acres <u>6</u>
		Length <u>3284'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

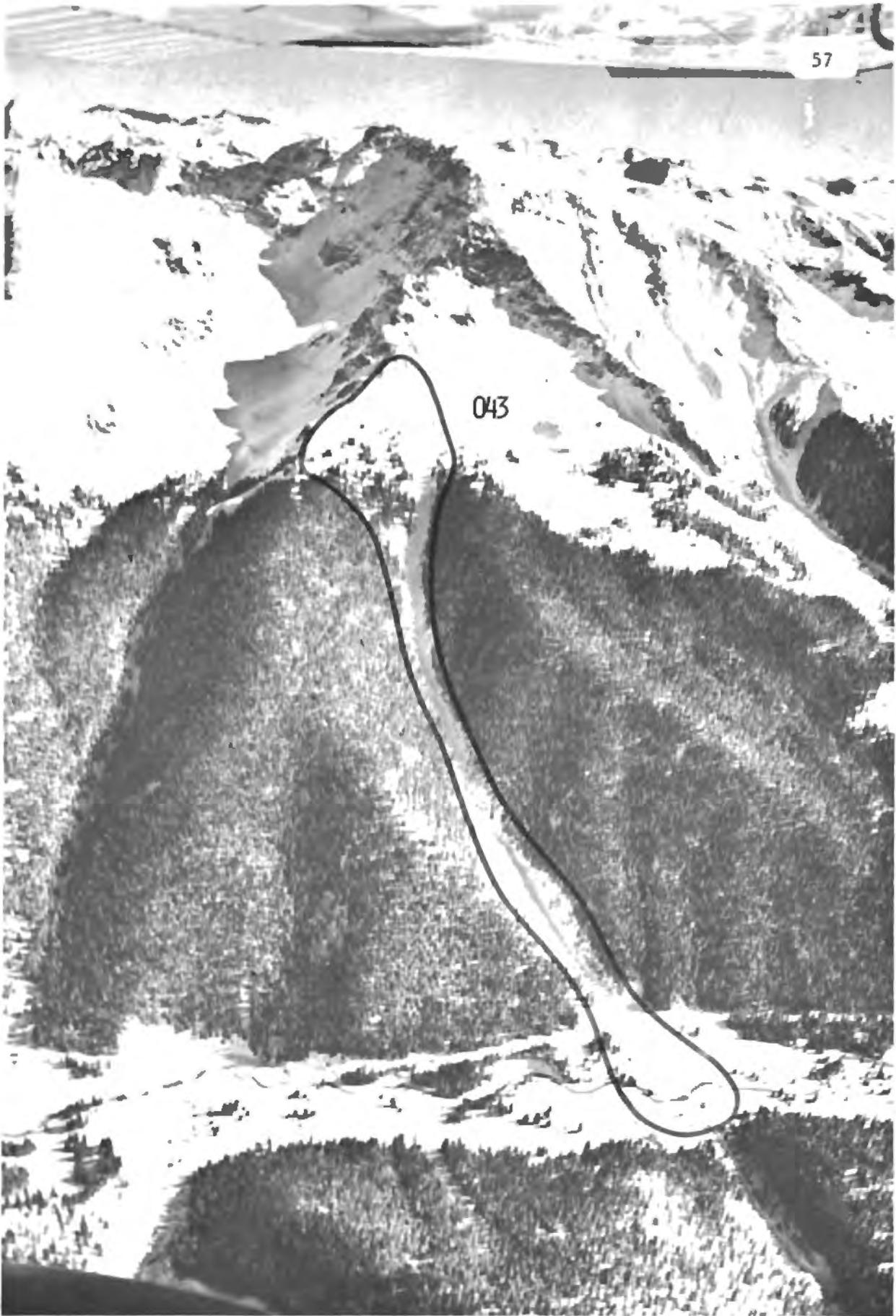
Starting Zone: Broad open slope, grass and talus

Track: V-shaped depression, small rock outcrops, light small coniferous and grass

Runout Zone: Open slope, grass and willows

HISTORY: III. events: 1
highway: 0
full-track: 0

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Avalanche Summary Sheet

PATH NAME ('s): Illinois Gulch

Path Reference Number: 157044 Zone: v Area: 10

Map Number: 5 Photograph Number: 58

SPECIFICATIONS:

Top Elev.: 13000' Bottom Elev.: 9900' Vertical Fall: 3100'

Length of Path: 6784' Number of Starting Zones: 10

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>39°</u>	<u>24°</u>	<u>9°</u>
Area Acres	<u>55</u>	Mean Width <u>200'</u>	Area Acres <u>15</u>
		Length <u>4926'</u>	
Tree Line	<u>A</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Broad shallow v-shaped basin, large rock outcrops, talus and grass

Track: v-shaped depression, moderate aspen and coniferous. Lower portion: v-shaped incised gully with bare ground

Runout Zone: Broad open slope, moderate coniferous, willows and mine dump

HISTORY: III. events: 1
highway: 0
full-track: 0



Avalanche Summary Sheet

PATH NAME ('s): Maybe So

Path Reference Number: 157045 Zone: V Area: 11

Map Number: 5 Photograph Number: 59

SPECIFICATIONS:

Top Elev.: 10200' Bottom Elev.: 9700' Vertical Fall: 500'

Length of Path: 1005' Number of Starting Zones: 1

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>30°</u>	<u>27°</u>	<u>22°</u>
Area Acres	<u>.25</u>	Mean Width <u>50'</u>	Area Acres <u>.25</u>
		Length <u>673'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Light coniferous and grass.

Track: Shallow gulley with grass and light willows.

Runout Zone: Small open slope grass and willows.

HISTORY:

Avalanche Summary Sheet

PATH NAME ('s): Maybe Not

Path Reference Number: 157046 Zone: V Area: 11

Map Number: 5 Photograph Number: 59

SPECIFICATIONS:

Top Elev.: 10000' Bottom Elev.: 9700' Vertical Fall: 300'

Length of Path: 674' Number of Starting Zones: 2

	<u>Starting Zone</u>		<u>Track</u>		<u>Runout Zone</u>
Slope Angle	<u>30°</u>		<u>34°</u>		<u>39°</u>
Area Acres	<u>.5</u>	Mean Width	<u>100'</u>	Area Acres	<u>.5</u>
		Length	<u>302'</u>		
Tree Line	<u>B</u>		<u>B</u>		<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Shallow depression, light coniferous and grass.

Track: Shallow gulley and small slope with grass.

Runout Zone: Open slope and creek, grass and willows.

HISTORY: III. events: 1
 highway: 1
 full-track: 0



Avalanche Summary Sheet

PATH NAME ('s): Vikik

Path Reference Number: 157047 Zone: V Area: 11

Map Number: 5 Photograph Number: 60

SPECIFICATIONS:

Top Elev.: 11000' Bottom Elev.: 9520' Vertical Fall: 580'

Length of Path: 3435' Number of Starting Zones: Multiple

	<u>Starting Zone</u>	<u>Track</u>	<u>Runout Zone</u>
Slope Angle	<u>42°</u>	<u>22°</u>	<u>16°</u>
Area Acres	<u>6</u>	Mean Width <u>200'</u>	Area Acres <u>8</u>
		Length <u>1618'</u>	
Tree Line	<u>B</u>	<u>B</u>	<u>B</u>

TERRAIN AND VEGETATION COVER:

Starting Zone: Open talus, rock and light coniferous.

Track: Deeply cut v-gulley with rock and talus. Some grass and willows.

Runout Zone: Broad open talus slope with grass, creek.

HISTORY:



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OCCASIONAL PAPERS**

Numbers 1 through 5 are out of print. A second edition of Number 1 is available from the author. Numbers 2, 4, and 5 are available from National Technical Information Service, U.S. Department of Commerce. For details, please write to INSTAAR.

6. *Guide to the Mosses of Colorado*. By W.A. Weber. 1973. 48 pp. Order from the author, University of Colorado Museum, Boulder, Colorado 80309. \$2.50.
7. *A Climatological Study of Strong Downslope Winds in the Boulder Area*. By W.A.R. Brinkmann. 1973. 228 pp. Order from the author, Institute for Environmental Studies, University of Wisconsin, 1225 West Dayton Street, Madison, Wisconsin 53706.
- †8. *Environmental Inventory and Land Use Recommendations for Boulder County, Colorado*. Edited by R.F. Madole. 1973. 228 pp. 7 plates. \$6.00.
- †9. *Studies of Climate and Ice Conditions in Eastern Baffin Island*. 1971-73. By J.D. Jacobs, R.G. Barry, R.S. Bradley, and R.L. Weaver. 1974. 77 pp. \$3.00.
- †10. *Simulation of the Atmospheric Circulation Using the NCAR Global Circulation Model With Present Day and Glacial Period Boundary Conditions*. By J.H. Williams. 1974. 328 pp. \$4.75.
11. *Solar and Atmospheric Radiation Data for Broughton Island, Eastern Baffin Island, Canada, 1971-73*. By J.D. Jacobs. 1974. 54 pp. (Out of print.)
12. *Deglacial Chronology and Uplift History: Northeastern Sector, Laurentide Ice Sheet*. By A.S. Dyke. 1974. 113 pp. (Out of print.)
- †13. *Development of Methodology for Evaluation and Prediction of Avalanche Hazard in the San Juan Mountains of Southwestern Colorado*. By R.L. Armstrong, E.R. LaChapelle, M.J. Bovis, and J.D. Ives. 1975. 141 pp. \$4.75.
- †14. *Quality Skiing at Aspen, Colorado: A Study in Recreational Carrying Capacity*. By C. Crum London. 1975. 134 pp. 3 plates. \$5.50.
- †15. *Palynological and Paleoclimatic Study of the Late Quaternary Displacements of the Boreal Forest-Tundra Ecotone in Keewatin and Mackenzie, N.W.T., Canada*. By H. Nichols. 1975. x + 87 pp. \$4.00.
- †16. *Computer Techniques for the Presentation of Palynological and Paleoenvironmental Data*. By M. Nichols, M. Eccles, and H. Nichols. 1976 (in press).
- †17. *Avalanche Atlas: San Juan County, Colorado*. By L. Miller, B.R. Armstrong, and R.L. Armstrong. 1976. 260 pp. 60 plates. \$4.25.
- †18. *Century of Struggle Against Snow: A History of Avalanche Hazard in San Juan County, Colorado*. By B.R. Armstrong. 1976 (in press).
- †19. *Avalanche Release and Snow Characteristics, San Juan Mountains, Colorado*. Edited by R.L. Armstrong and J.D. Ives. 1976 (in press).
- †20. *Landslides Near Aspen, Colorado*. C.P. Harden. 1976 (in press).

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