

ALASKA DIVISION OF GEOLOGICAL &
GEOPHYSICAL SURVEYS145°07'30"
61°45'

Joins Valdez D-3

LIMIT TO 1:50,000 SCALE MAPPING

144°45'
61°45'

ENGINEERING GEOLOGY

This map was based primarily upon original photo-interpretation of color infrared aerial photography and LANDSAT imagery. Published and unpublished geologic maps and reports were used as supplementary sources of information. Minimum mapping resolution is usually 40 acres; important features that could be located with accuracy on the topographic base maps were mapped to a minimum of 10 acres.

Terrain units consist of landform types and their constituent geologic materials occurring from the ground surface to a depth of 25 feet. A simple terrain unit consists of a single landform type, layered, mosaic, and complex terrain units consist of 2 or more landform types. The terrain unit classification is based on the hierarchical catalog of landform types developed for Alaska by Brown and Lau (1980) and Kreis and Reger (1976, 1980). Landform types are identified by letter codes; uppercase letters indicate the origin of the deposit while lower case letters indicate the specific landform type within a group. See the User's Guide to the Copper River Area Resource Mapping Project for detailed descriptions of mapped units and documentation of mapping methods and sources.

UNCONSOLIDATED (SEDIMENT) TERRAIN UNITS

- C Colluvial (gravity) Deposits
Ca Avalanche Deposits
Cg Rock Glacier
Cl Landslide Deposits
Ct Talus Deposits
El Loess (wind deposited silt)
Es Sand Dune
Fd Fluvial (stream) Delta Deposits
Fda Abandoned Fluvial (stream) Delta Deposits
Ff Alluvial (stream) Fan Deposits
Ffg Granular Alluvial (stream) Fan Deposits
Ffs Silt Alluvial (stream) Fan Deposits
Fm Mud Volcano
Fp Floodplain (stream) Deposits
Fpb Braided Floodplain (stream) Deposits
Fpm Meander Floodplain (stream) Deposits
Fpa Abandoned Floodplain (stream) Deposits
Fs Retransposed (slopewash) Deposits
Ft Fluvial (stream) Terrace Deposits
Fto Old Fluvial (stream) Terrace Deposits
Gd Glacier (ice)
GL Glacial Lacustrine (glacial lake) Deposits
Gm Glacial Moraine (hilly) Deposits
Gt Glacial Till (nearly level) Deposits
Gtd Glacial Drumlin Till Deposits
Gtf Glacial Fluted Till Deposits
Gto Older Glacial Till Deposits
Gty Younger Glacial Till Deposits
GF Glaciofluvial (meltwater) Deposits, Undifferentiated
GFE Glaciofluvial (meltwater) Esker Deposits
GFK Glaciofluvial (meltwater) Kame Deposits
GL Lowland Glaciofluvial (meltwater) Deposits
GPO Glaciofluvial (meltwater) Outwash Deposits
L Lacustrine (lake) Deposits
Lb Lacustrine (lake) Beach Deposits
Ll Lacustrine Thaw Basin/Lake Deposits
Mb Marine Beach Deposits
Mt Marine Tidal (mud flat) Deposits
O Organic Deposits
Wb Water Body: Bay
Wf Water Body: Fjord
Wg Water Body: Lagoon
Wl Water Body: Lake
Wt Water Body: Strait

CONSOLIDATED (BEDROCK) TERRAIN UNITS

- Ib Extrusive Igneous Bedrock (lava flows)
Iba Extrusive Acidic Bedrock (lava flows)
Ibb Extrusive Basic Bedrock (lava flows)
Ig Intrusive Igneous Bedrock
Iga Intrusive Acidic Bedrock (granitic rocks)
Igb Intrusive Basic Bedrock (gabbroic rocks)
Igu Intrusive Ultrabasic Bedrock
Ip Pyroclastic Deposits (ash, cinder)
Nl Slate, Phyllite
Nm Marble
Np Serpentinized
Ng Quartzite
Ns Schist
S Sedimentary Bedrock, Undifferentiated
Sc Conglomerate
Sh Shale, Siltstone
Sl Limestone
Ss Sandstone

CONNECTIVES

Layered terrain unit; one landform type overlying another.

Mosaic terrain unit; dominant component listed first. A mosaic terrain unit is composed of 2 discrete components, each of which comprises greater than 25% of the area of the polygon and which are too small and intricately mixed to separate.

EXAMPLES

Layered terrain unit:

Organic Deposits overlying Glacial Till Deposits
O
Gt

Mosaic terrain unit, dominant component listed first:

Floodplain Deposits and Fluvial Terrace Deposits
Fp + Ft

Complex terrain units:

Slate Bedrock and Colluvial Deposits overlying
Slate Bedrock
Nl + C
Nl

A mosaic of Glacial Till and Colluvial Deposits
Gt + C
overlying Slate Bedrock Nl

This document is intended only for general land management and planning purposes. There has been no field verification of the interpretation other than recourse to published and unpublished maps and reports. Projects which require site-specific data will require additional on-site investigation to verify terrain units, their characteristics, and their geotechnical properties.

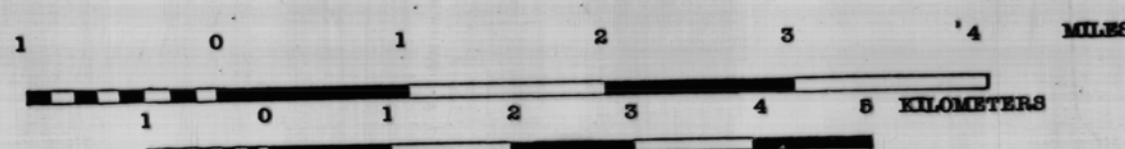
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SCALE 1:50,000



VALDEZ (C-3) QUADRANGLE

ENGINEERING GEOLOGY

PREPARED FOR THE
STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF GEOLOGICAL & GEOPHYSICAL SURVEYS

BY AGRA
ARCTIC GEO RESOURCE ASSOCIATESPHOTO-INTERPRETED BY
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