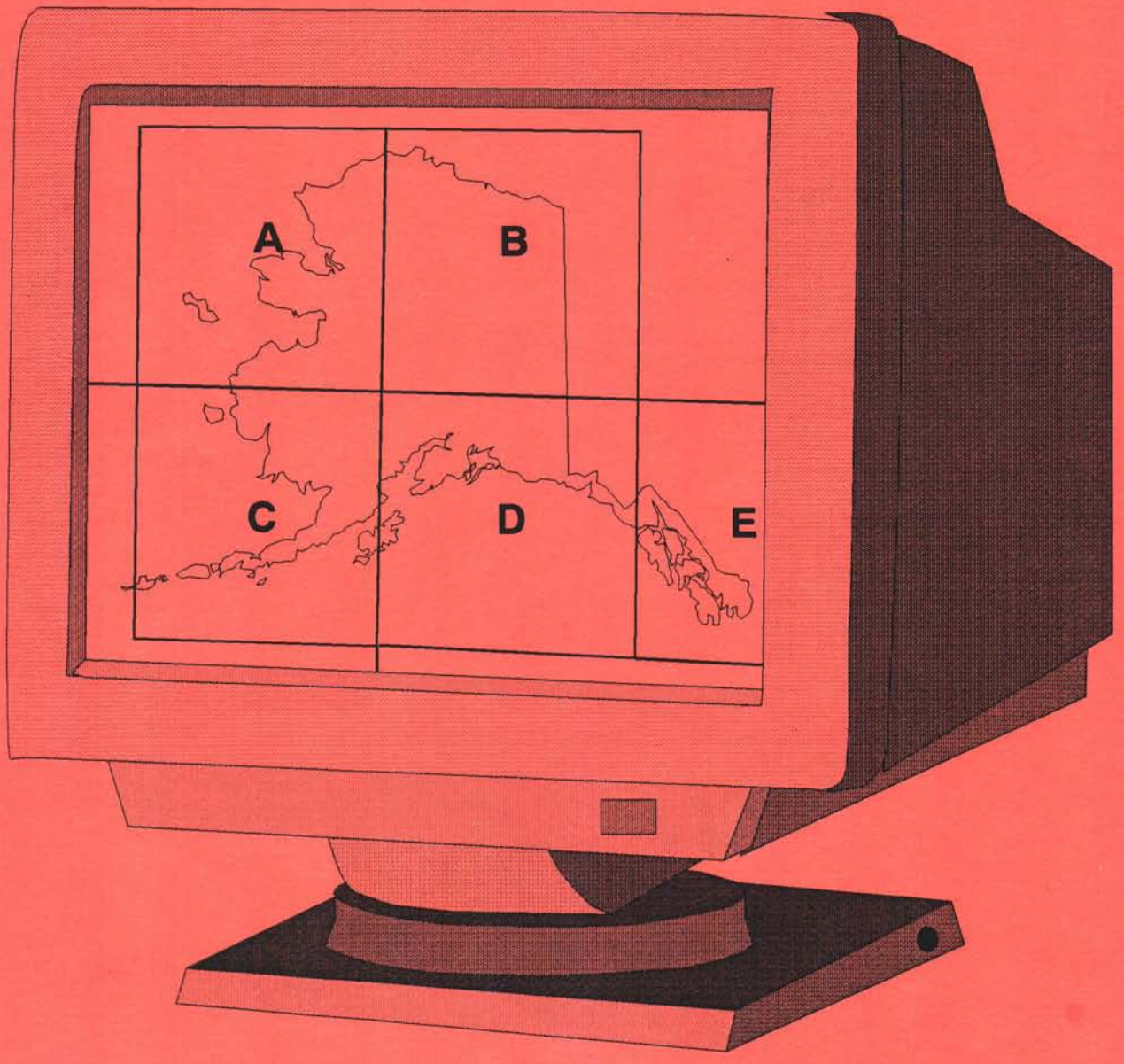
MINERAL TERRANES and KNOWN MINERAL DEPOSIT AREAS of ALASKA

-Digital Map Documentation-



U. S. DEPARTMENT of the INTERIOR

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Bureau of Mines

United States Department of the Interior
Bureau of Mines
Alaska Field Operations Center

MINERAL TERRANES and KNOWN MINERAL DEPOSIT AREAS of ALASKA
-Digital Map Documentation-

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Table of Contents

Resource Data, Inc. completed a series of edits and updates to digital data files for the U.S. Bureau of Mines (USBM). Revisions to the Mineral Terranes Areas of Alaska (MTA) maps were completed based on information and digital data supplied by the U.S. Bureau of Mines and Alaska Earth Sciences. A new data set of Known Mineral Deposit Areas in Alaska (KMDA) was also developed.

The following documentation describes the digital base map and geologic data provided to the U.S. Bureau of Mines. Also provided is a section for installing the data. A data dictionary is included in this documentation and serves as a users guide for the data.

1.1 Disclaimer of Liability Clause

The Bureau of Mines expressly declares that there are no warranties expressed or implied which apply to the data contained or described herein. By acceptance and use of said data, which is conveyed to the user without consideration by the U.S. Bureau of Mines, the user hereof expressly waives any and all claims for damage and/or suits for or by reason of personal injury, or property damage, including special, consequential or other similar damages arising out of or in any way connected with the use of the data contained or described herein.

There are two categories of data provided consisting of base map features and geologic features. The base map data is comprised of coastline, hydrography, quadrangles, and place names. The geologic data consists of Mineral Terrane Areas (MTA's), lode deposits, placer deposits, and Known Mineral Deposit Areas (KMDA's).

All of the data are intended to be used with DOS-based application software provided by Environmental Systems Research Institute (ESRI), AutoCAD or compatible software. All of the data files are in both PC ARC/INFO-ArcCad-Arcview interchange (export) and AutoCAD drawing file format.[1] The export files are ASCII and formatted for the DOS computing environment. The MTA, KMDA, and Coastline files were placed into map tiles due to the size of the data files, software limitations, and to facilitate display and mapping. Map tile coverage is shown in figure 1.

All of the data are single precision and reside in the standard Alaska albers map projection. Section 4.0 of this document provides a detailed data description.

2.1 Mineral Terranes of Alaska (MTA)

Introduction

The 1994 Mineral Terranes Compilation is intended as a digital product and revision of the 1982 Mineral Terranes map which was compiled by C. C. Hawley and Associates of Anchorage. The compilation is designed to show areas of the state with potential for the discovery of resources of metallic minerals.

Mineral *deposits* result from the concentration of potentially valuable mineral commodities beyond their normal abundance by processes which occur during the creation of certain rock units, or by processes which affect the rock units after their deposition or emplacement. Definition of the parameters which control the creation of these deposits, or mineral deposit *modeling* is a long-established process which has achieved considerable success in mineral exploration and in the scientific understanding of the origin of various types of deposits.

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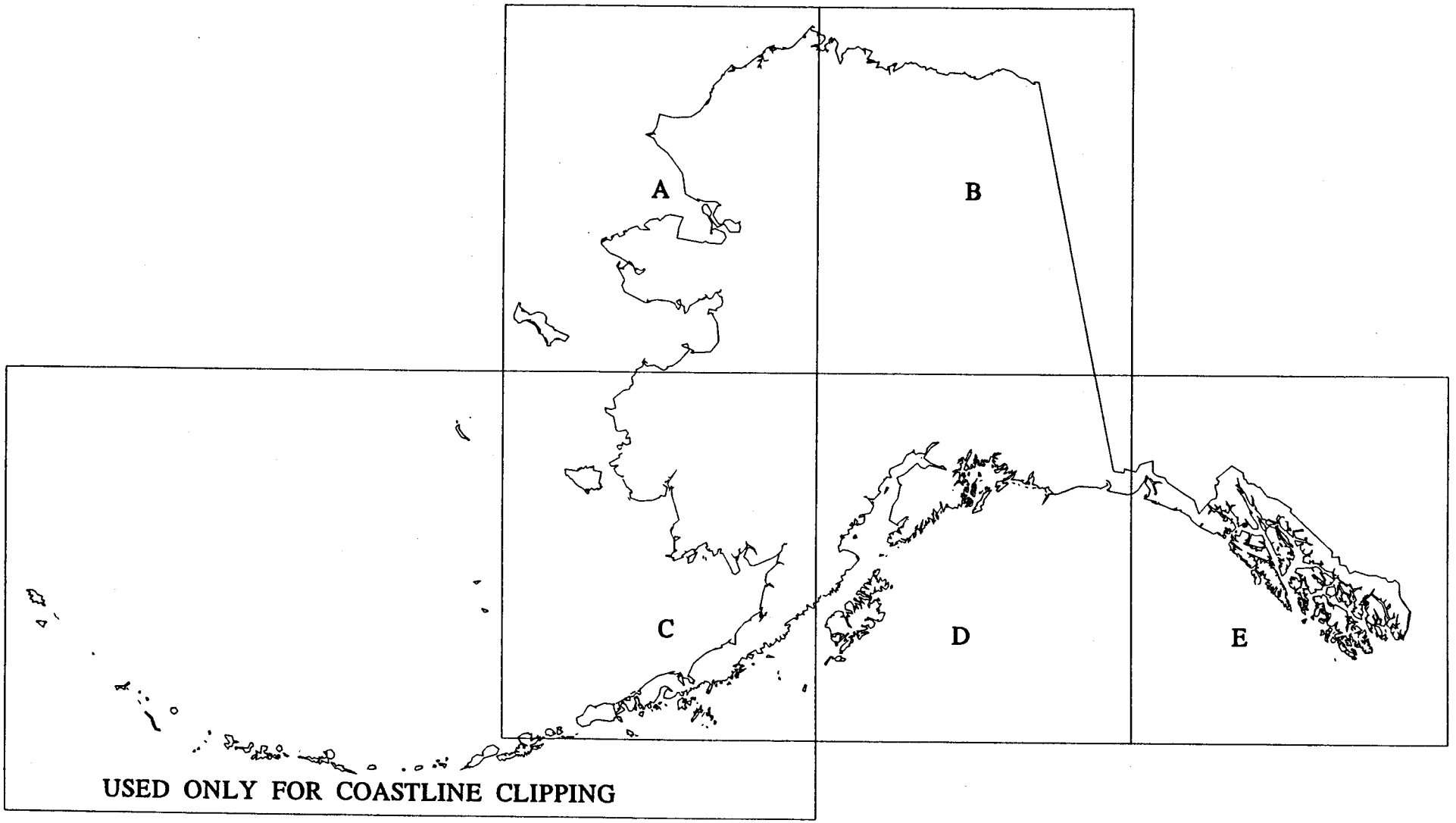
[1] ARC/INFO, PC ARC/INFO, ArcCAD, Arcview are registered trademarks of Environmental Systems Research Institute (ESRI). AutoCAD is a registered trademark of Autodesk Inc.

Clipping boxes used for Mineral Terrane coverages and Coastline coverages

Figure 1.



Mineral *terranes* are areas whose primary lithology or subsequent history result in their being favorable for the occurrence of certain types of mineral deposits. The judgement of favorability is based on the similarity to commonly accepted mineral deposit models. This mineral terrane approach has long yielded success in our understanding of the fundamental processes which control the location of our mineral resources and in guiding exploration for economically extractable quantities of them. It is important to realize, however, that our knowledge of mineral deposit models and the geology of the state evolve, and no compilation can therefore be considered to be definitive or complete.

The terranes of this compilation are modified from those of the 1982 mineral terranes maps, as digitized by the Alaska Department of Geological and Geophysical Surveys. Geological information comes primarily from maps generated by public agencies such as the U. S. Geological Survey and the Alaska Department of Geological and Geophysical Surveys.

Lode (hardrock) mineral deposit information was primarily drawn from the U. S. Bureau of Mines Minerals Availability System (MAS) system, a digital compilation of most of the known mineral deposits in the state. Placer (stream) deposits by their nature often consist of many small deposits under different or varying ownership, which over time achieve a significant aggregate production for a given drainage basin. For this reason, they are difficult to summarize using the single-deposit-oriented MAS approach. For purposes of this presentation individual placer mines or claims have been lumped into informal districts which represent spatially associated drainages with significant placer production. Most of the placer districts used in this compilation are based on those digitized by the state from the 1982 mineral terranes maps.

Mineral Deposit Ranking

Many of the lode deposits included on this compilation were also on the 1982 maps, but for the most part those included here were derived directly from MAS. A few significant deposits which were not in MAS were added. The deposits were divided into four classes based on rather subjective judgments as to their importance. The classes, shown numerically in the class column in the listing, are as follows:

1. Major deposit--A mine with exceptional current or historical production or a prospect with exceptional developed reserves.

   Examples: Red Dog, Greens Creek, the Kennecott mines (Bonanza, Mother Lode, Jumbo), Pebble Copper, Quartz Hill.

2. Intermediate deposit--A mine with intermediate production or prospect with intermediate developed reserves or major but not developed reserves.

   Examples: Illinois Creek, Johnson River, Salt Chuck

3. Minor deposit--Mine with minor but significant production or prospect with established resource potential.

4. Occurrence or apparently very small mine or prospect, or deposit without enough information for evaluation

The classification is roughly based on production and reserve size but is intrinsically subjective, representing the opinion of the compilers. It is difficult to assign strict numerical production or reserve figures to the various classes because:

1) MAS production figures are proprietary and were not available for this compilation,

2) reserve or resource figures on most of the prospects are not available or are not known,

3) quantitative comparison of different types of deposits with different commodities in different geographical areas is a complex problem.

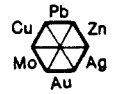
With the data in this form, however, the user can make his own subjective judgements or devise another ranking scheme.

Placers were ranked according to the same size classification used on the 1982 maps:

Table 1.

LEGEND

MINERAL DEPOSITS

COMMODITY	LARGE	MEDIUM	SMALL OR UNEVALUATED
Molybdenum-Tin-Tungsten			
Copper-Lead-Zinc-Silver-Gold-Molybdenum			
Uranium-Thorium			
Chrome-Cobalt-Nickel-Platinum Metals			
Mercury-Antimony			
Placer Deposits			
Coal Deposits			

Minor modifications were made in some of the locations where new information is available, and a few significant deposits were added which had been omitted from the original version.

Modifications to the Mineral Terranes

Changes to the mineral terranes were made based on the compilers knowledge of areas of recent mapping and of significant new mineral deposits or deposit types. In addition, a printout of the MAS deposits was generated and terranes were modified to include deposits which were relevant. Geology for the modifications was generalized from state, federal, and proprietary mapping at various scales and the rock types, with one exception, were grouped into the same classifications used on the original terranes maps. The exception is a unit designated VFI which was defined specifically for the Alaska Peninsula. A description would read:

> VFI—Felsic and intermediate volcanics; favorable for epithermal gold, silver, and mercury deposits.

2.2 Known Mineral Deposits for Alaska (KMDA)

Known mineral deposit areas (KMDA's) for the state of Alaska were defined by Alaska Earth Sciences of Anchorage using the U. S. Bureau of Mines Mineral Industry Location System (MILS) database, a computer database which contains information on mineral deposits throughout the state, and a map of Alaska's mineral terranes which was recently revised and compiled in digital format by Alaska Earth Sciences and Resource Data, Inc.. The mineral terranes map update was performed under contract with the Bureau of Mines and was based on a set of maps published in 1982 by the Arctic Environmental Information and Data center of the University of Alaska.

KMDA's are areas in Alaska which contain significant lode and/or placer deposits of base or precious metals. Most of the known deposits with recorded production are included, as are prospects with no production but with significant drill-established resources, such as the copper-bearing volcanogenic massive sulfides of the central Brooks Range and the Quartz Hill molybdenite deposit near Ketchikan.

The mineral terranes, many of which are defined by specific geologic formations, were used to determine the shapes of related KMDA's but areas of terranes with no known deposits were not included. The KMDA's further differ from the mineral terranes in that they include placer deposits, which are shown as selected drainages on the mineral terranes map but are not defined as individual terranes. Though the KMDA's are strongly based on the deposits of the MILS database, their exact size and shape are of necessity somewhat subjective. An area outside of the known deposit or deposits was included as a buffer zone. This ranged from one to five miles, depending on the geology and the size of the deposits.

All of the most important areas of mineralization in the state are included in KMDA's but there are at least some significant deposits which are not in MILS. Where Alaska Earth Sciences geologists had knowledge of these missing deposits they were included in the KMDA's and recommended for addition to MILS, but there are definitely at least some known deposits which have still not been taken into account.

As Alaska is under-explored compared to the rest of the nation and to many other countries, there are undoubtedly significant deposits which have not yet been discovered. The Pebble Copper deposit for instance, located north of Lake Illiamna, contains large resources of copper and gold but it was not found until 1988. The KMDA's are as complete as possible with the available information but they cannot be regarded as the final word on the location of all possible mineralization.

2.3 Base Map Data

All of the base map data is used to provide a geographic reference for the geologic data. The coastline data is 1:2000000 in scale and was developed by USGS and NOAA. The hydrography is a subset of the 1:2000000 USGS DLG files. The place name data is a subset of the USGS Geographic Place Names Data Set (1981). The 1:250000 USGS quadrangle data was developed by Resource Data, Inc. based on protracted USGS 1:63360 quadrangle latitude/longitude coordinate data.

This section describes the minimum recommended system requirements and instructions for installing the data. A listing of files is given in table 1. Files with a .DWG extension are to be used with AutoCAD or compatible software and files with a .E00 extension are used with ESRI PC software.

3.1 System Requirement Recommendations

The following is the minimum recommended system requirements for installing and using the data:

- 486 PC using DOS
- 16mb of RAM
- 100mb of available Disk Space
- PC ARC/INFO 3.4d, or Arc/CAD, or ArcView
- AutoCAD ver 12

Although a 386/33 PC with 8mb of memory could be used it is not recommended because the display and query time of the data will be unsatisfactory.

100mb of available disk space will accommodate, either the export files, or the Autocad drawing files.

3.2 Installation Procedures

The following are the steps required to import the ARC/INFO interchange (export) files. Table 2 on the following page provides a listing of the available files.

Step #1

Create a directory and copy the data files from the disk(s) to your PC hard disk:

```
C:> MKDIR USBM
C:> CD USBM
C:\USBM> COPY A:\*.*
```

Table 2.

Data File Listing

AutoCAD Drawing Files

File Name	Extension	Size (kb)	Date	Theme Name
DLGROAD	DWG	150,749	7/26/94	ROADS
EROS_A	DWG	4,506,805	6/2/94	COASTLINE
EROS_B	DWG	2,390,822	6/2/94	COASTLINE
EROS_C	DWG	5,295,110	6/2/94	COASTLINE
EROS_D	DWG	6,104,577	6/3/94	COASTLINE
EROS_E	DWG	2,765,656	6/3/94	COASTLINE
EROSALU	DWG	762,897	7/26/94	COASTLINE
KMDA	DWG	1,487,546	6/3/94	KMDA
KMDA_A	DWG	170,004	6/28/94	KMDA
KMDA_B	DWG	85,718	6/28/94	KMDA
KMDA_C	DWG	93,396	6/28/94	KMDA
KMDA_D	DWG	410,233	6/28/94	KMDA
KMDA_E	DWG	716,758	6/28/94	KMDA
MAP_A	DWG	2,107,165	5/1/94	MTA
MAP_B	DWG	6,697,679	5/1/94	MTA
MAP_C	DWG	2,024,303	5/1/94	MTA
MAP_D	DWG	4,486,392	5/1/94	MTA
MAP_E	DWG	1,499,954	5/1/94	MTA
QUAD250	DWG	181,429	7/26/94	1:250000 USGS QUADS
RIVMAIN	DWG	8,774,682	7/26/94	MAIN RIVERS
USGSNAM	DWG	181,072	7/26/94	PLACES
	Total Size	**50,892,947**		

ESRI Interchange Files (Export Files)

File Name	Extension	Size (kb)	Date	Theme Name
DLGROAD	E00	186,924	4/29/94	ROADS
EROS_A	E00	4,777,451	4/29/94	COASTLINE
EROS_B	E00	2,639,764	4/29/94	COASTLINE
EROS_C	E00	5,491,212	4/29/94	COASTLINE
EROS_D	E00	6,247,670	4/29/94	COASTLINE
EROS_E	E00	2,931,287	4/29/94	COASTLINE
EROSALU	E00	819,353	7/26/94	COASTLINE
KMDA	E00	1,020,603	6/6/94	KMDA
KMDA_A	E00	187,130	6/28/94	KMDA
KMDA_B	E00	102,700	6/28/94	KMDA
KMDA_C	E00	105,258	6/28/94	KMDA
KMDA_D	E00	442,982	6/28/94	KMDA
KMDA_E	E00	782,638	6/28/94	KMDA
MTA_A	E00	2,101,547	4/29/94	MTA
MTA_B	E00	6,034,543	4/29/94	MTA
MTA_C	E00	2,134,185	4/29/94	MTA
MTA_D	E00	4,113,505	4/29/94	MTA
MTA_E	E00	1,665,870	4/29/94	MTA
MTALODE	E00	1,186,255	5/1/94	MTA LODE
MTAPLAC	E00	98,806	5/1/94	MTA PLACER
QUAD250	E00	268,025	4/29/94	1:250000 USGS QUADS
RIVMAIN	E00	9,458,778	4/29/94	MAIN RIVERS
USGSNAM	E00	343,528	4/29/94	PLACES
	Total Size	**53,140,014**		

All of AutoCAD drawing files can now be viewed with the AutoCAD software. Additional work described below is required to import the ESRI interchange (export) files.

Step #2

(2A) If you are using PC ARC/INFO type the following at the ARC: prompt for each export (.E00) file:

ARC: IMPORT COVER <export_file> <coverage_name>
Example: IMPORT COVER USGSNAM USGSNAM

(2B) If you are using ArcCAD a dialogue session will be provided. Type the following at the **Command** prompt for each export (.E00) file:

Command: IMPORT
Type of export? Coverage
Interchange file name (?): USGSNAM
Coverage name (?): USGSNAM

A theme definition will need to be established using ArcCAD before the data can be viewed.

(2C) If you are using Arcview type the following at the **DOS** prompt for each export (.E00) file:

C:\USBM> IMPORT COVER USGSNAM USGSNAM

<or>

C:\USBM> C:\ARCVIEW\BIN\IMPORT COVER USGSNAM USGSNAM

The import command will create a directory having the same name as the coverage name provided by the user. This directory will contain all of the internal and attribute files associated with the particular coverage.

If there are complications during the import process and a coverage fails to import the user will have to delete the coverage directory before a second import attempt can be made.

Although the export files are intended to be used with ESRI DOS application software products, they can be converted to be used with SUN Unix workstations. If you are using ARC/INFO on a SUN workstation you may need to first copy the files from the PC hard disk to the workstation or network hard disk and then convert the export files from DOS to UNIX.

1)	**C:\USBM> COPY *.E00 F:\USBM*.***	**(dos)**
2)	**% dos2unix usgsnam.e00 usgsnam.e00**	**(unix)**
3)	**Arc: import cover usgsnam usgsnam**	**(unix)**

The following pages provide a detailed description of the ARC/INFO coverages provided to the U.S. Bureau of Mines. For each coverage the data dictionary includes:

- Theme Name
- Theme Description
- Coverage Name(s)
- Topology
- Map Projection
- Source Data
- Processing Notes
- Attribute Codes

The information in the following data dictionary applies to the AutoCAD drawing files as well as the ARC coverages except for attribute information. Attribute data in the AutoCAD files is displayed as text or as separate named layers for polygons. A supplemental "AutoCAD NOTES" section is also included to assist those using the AutoCAD drawing file data.

COASTLINE

Theme Description	Alaska coastline and coastal water bodies
Coverage Names	EROS_A, EROS_B, EROS_C, EROS_D, EROS_E, EROSALU
Topology	POLY
Map Projection	Alaska Standard Albers central meridian . . . . . 154° W standard parallels . . . . . 55° N and 65° N origin . . . . . 50° N
Source Data	USGS & NOAA via USFWS. Original scale is thought to be 1:2000000.
Processing Notes	Data is Pre June 1989 and originated at the USGS EROS Field Office. The ARC/INFO coverage was acquired from USFWS in March of 1992. Polygon topology was present yet no attributes were available to discern land and coastal water. RDI has corrected this problem. Due to the size of the coverage and software limitations, the coastline data has been placed into a series of tiles. See map for tile locations.

Attribute Codes

Data Item	Description	Valid Code	Code Description
AREA	ARC/INFO area in sq. meters	N/A	N/A
CLASS	Physical property code	1 2	Land Coastal Waters

MAIN RIVERS

Theme Description	Alaska main rivers and streams
Coverage Name	RIVMAIN
Topology	LINE
Map Projection	Alaska Standard Albers central meridian . . . . . 154° W standard parallels . . . . . 55° N and 65° N origin . . . . . 50° N
Source Data	1:2000000 USGS Digital Line Graph (DLG) files
Processing Notes	Acquired by RDI on 5/29/1990 in ARC/INFO export format. Data was imported into ARC/INFO and reviewed for content. Redundant DLG attributes were deleted. The RIVMAIN coverage is a subset of DLG hydrography. The data was generated based on selections of DLG codes.

Attribute Codes

Data Item	Description	Valid Code	Code Description
LENGTH	ARC/INFO length in meters	N/A	N/A
WILD	Wild and scenic flag	Y	Rivers/Streams coded "Y" for this attribute are considered to be wild and scenic.
MINOR1	DLG stream classification		(see DLG Data Users Guide)
CLASS	RDI stream classification	100 300 500 0	River/Stream (shoreline) River/Stream perennial (single line) Braided stream Unknown

ROADS

Theme Description	Alaska roads, trails, and ferry routes
Coverage Name	DLGROAD
Topology	LINE
Map Projection	Alaska Standard Albers central meridian . . . . . 154° W standard parallels . . . . . 55° N and 65° N origin . . . . . 50° N
Source Data	1:2000000 USGS Digital Line Graph (DLG) files
Processing Notes	Acquired by RDI on 5/29/1990 in ARC/INFO export format. Data was imported into ARC/INFO and reviewed for content. Redundant DLG attributes were deleted.

Attribute Codes

Data Item	Description	Valid Code	Code Description
LENGTH	ARC/INFO length in meters	N/A	N/A
DLG_MINOR1	DLG road classification		(see DLG Data Users Guide)
CLASS	RDI road classification	100 200 300 400 500 600	Other, State State Secondary Light Duty Unimproved Other, Trails Ferry, Auto

PLACES

Theme Description	Alaska place data (populated sites, vicinities, mines, etc.)
Coverage Name	USGSNAM
Topology	POINT
Map Projection	Alaska Standard Albers central meridian . . . . . 154° W standard parallels . . . . . 55° N and 65° N origin . . . . . 50° N
Source Data	USGS Geographic Place Names Data Set (1981). Original data manually entered. Locations in Lat/Long using scales and dividers. Source is 1:63360 USGS Quadrangles except where unavailable. 1:250000 Quadrangles were used for some areas. Some additional data provided by USFS, NPS, and NOAA.
Processing Notes	Acquired and processed by RDI in February of 1993. Datafile was imported into R:Base. Generate and attribute files were produced to create the ARC/INFO coverage.

Attribute Codes

Data Item	Description	Valid Code	Code Description
NAME	Name of location	(see file)	N/A
TYPE	Type of location	cemetery	Cemetery site
		locale	Vicinity
		military	Military site
		mine	Mine
		ppl	Populated place
REGION	Geographic region of location	(see list)	N/A

Attribute List

REGION

Aleutian Islands
Anchorage
Anchorage Borough
Bethel
Bristol Bay
Dillingham
Fairbanks North Star
Fairbanks North Star Borough
Haines
Juneau
Juneau Borough
Kenai Peninsula
Kenai Peninsula Borough
Ketchikan Gateway
Kodiak Island
Kodiak Island Borough
Matanuska-Susitna
Matanuska-Susitna Borough
Nome
North Slope
North Slope Borough
Northwest Arctic
Prince of Wales-Outer Ketchikan
Sitka
Sitka Borough
Skagway-Yakutat-Angoon
Southeast Fairbanks
Valdez-Cordova
Valdez-Cordova Borough
Wade Hampton
Wrangell-Petersburg
Yukon-Koyukuk

1:250000 USGS QUADS

Theme Description	1:250000 USGS Quadrangles
Coverage Name	QUAD250
Topology	POLY
Map Projection	Alaska Standard Albers central meridian . . . . . 154° W standard parallels . . . . . 55° N and 65° N origin . . . . . 50° N
Source Data	Data produced by RDI based on protracted USGS 1:63360 Quadrangle latitude/longitude coordinate data. Supplemental coordinates added to define curvature during projection.
Processing Notes	Coverage was created by dissolving 1:63360 Quadrangles (AKQUADS) based on Quadrangle Name.

Attribute Codes

Data Item	Description	Valid Code	Code Description
AREA	ARC/INFO area in meters	N/A	N/A
QNAME	Quadrangle name	(See List)	
SNAME	Abbreviated name	(See List)	

Attribute List (see next page)

ADAK	ADA	AFOGNAK	AFO
AMBLER RIVER	AMR	AMUKTA	AMU
ANCHORAGE	ANC	ARCTIC	ARC
ATKA	ATK	ATLIN	ATL
ATTU	ATT	BAIRD INLET	BAI
BAIRD MTS.	BAM	BARROW	BAR
BARTER ISLAND	BIS	BEAVER	BEA
BEECHEY POINT	BEP	BENDELEBEN	BEN
BERING GLACIER	BEG	BETHEL	BTL
BETTLES	BET	BIG DELTA	BID
BLACK	BLA	BLACK RIVER	BLR
BLYING SOUND	BLS	BRADFIELD CANAL	BRC
BRISTOL BAY	BRB	CANDLE	CAN
CAPE MENDENHALL	CAM	CHANDALAR	CHA
CHANDLER LAKE	CHL	CHARLEY RIVER	CRI
CHIGNIK	CHI	CHRISTIAN	CHR
CIRCLE	CIR	COLD BAY	COB
COLEEN	COL	CORDOVA	COR
CRAIG	CRA	DELONG MTN.	DEM
DEMARCATION PT.	DEP	DILLINGHAM	DIL
DIXON ENTRANCE	DIE	EAGLE	EAG
FAIRBANKS	FAI	FALSE PASS	FAP
FLAXMAN ISLAND	FLI	FORT YUKON	FOY
GARELOI ISLAND	GRI	GOODNEWS BAY	GOB
GULKANA	GUL	HAGEMEISTER ISLAD	HAI
HARRISON BAY	HAB	HEALY	HEA
HOLY CROSS	HOC	HOOPER BAY	HOB
HOWARD PASS	HOP	HUGHES	HUG
ICY BAY	ICB	IDITAROD	IDI
IKPIKPUK	IKP	ILIAMNA	ILI
JUNEAU	JUN	KAGUYAK	KAG
KANTISHNA RIVER	KAN	KARLUK	KAR
KATEEL RIVER	KRI	KENAI	KEN
KETCHIKAN	KET	KILLIK RIVER	KIR
KISKA	KIS	KISKA INSET	KIS
KODIAK	KOD	KOTZEBUE	KOT
KUSKOKWIM BAY	KUB	KWIGUK	KWI
LAKE CLARK	LAC	LIME HILLS	LIH
LIVENGOOD	LIV	LOOKOUT RIDGE	LOR
MARSHALL	MAR	MCCARTHY	MCC
MCGRATH	MCG	MEADE RIVER	MER
MEDFRA	MED	MELOZITNA	MEL
MIDDLETON ISLAND	MII	MISHEGUK MTN.	MIM
MT. FAIRWEATHER	MTF	MT. HAYES	MTH
MT. KATMAI	MTK	MT. MCKINLEY	MTM
MT. MICHELSON	MMI	MT. ST. ELIAS	MSE
NABESNA	NAB	NAKNEK	NAK
NOATAK	NOA	NOME	NOM
NORTON BAY	NOB	NULATO	NUL
NUNIVAK ISLAND	NUI	NUSHAGAK BAY	NUB
OPHIR	OPH	PETERSBURG	PET
PHILIP SMITH MTN.	PSM	POINT HOPE	POH
POINT LAY	POL	PORT ALEXANDER	POA
PORT MOLLER	POM	PRIBILOF ISLANDS	PRI
PRINCE RUPERT	PRR	RAT ISLANDS	RAI
RUBY	RUB	RUSSIAN MISSION	RUM
SAGAVANIRKTOK	SAG	SAMALGA ISLAND	SAI
SEGUAM	SEG	SELAWIK	SEK
SELDOVIA	SEL	SEWARD	SEW
SHISHMAREF	SHI	SHUNGNAK	SHU
SIMEONOF ISLAND	SII	SITKA	SIT
SKAGWAY	SKA	SLEETMUTE	SLE
SOLOMON	SOL	ST. LAWRENCE	STL
ST. MATTHEW	SMA	ST. MICHAEL	STM
STEPOVAK BAY	STB	SUMDUM	SUM

KMDA

Theme Description	Known Mineral Deposit Areas
Coverage Names	KMDA_A, KMDA_B, KMDA_C, KMDA_D, KMDA_E
Topology	POLY
Map Projection	Alaska Standard Albers central meridian . . . . . 154° W standard parallels . . . . . 55° N and 65° N origin . . . . . 50° N
Source Data	Known mineral deposit areas (KMDA's) for the state of Alaska were defined by Alaska Earth Sciences of Anchorage and the U.S. Bureau of Mines Mineral Industry Location System (MILS) database. The digital data is also based on a maps series published in 1982 by the Arctic Environmental Information and Data Center of the University of Alaska.
Processing Notes	Resource Data, Inc. digitized the KMDA data from coded maps provided by Alaska Earth Sciences of Anchorage. The data was reviewed by Alaska Earth Science of Anchorage and the U.S. Bureau of Mines. Due to the size of the coverage, software limitations, and to facilitate mapping, the KMDA data has been placed into a series of tiles. See map for tile locations.

Attribute Codes (see next page)

Attribute Codes

Data Item	Description	Valid Code	Code Description
AREA	ARC/INFO area in sq. meters	N/A	N/A
MAP	Digital map tile code	A B C D E	ARC/INFO map tile code
KMDA	KMDA flag	Y	KMDA polygons are coded "Y" to preserve the existence of KMDA data when processing with other data.

Theme Description	Mineral Terranes of Alaska
Coverage Names	MTA_A, MTA_B, MTA_C, MTA_D, MTA_E
Topology	POLY
Map Projection	Alaska Standard Albers central meridian . . . . . 154° W standard parallels . . . . . 55° N and 65° N origin . . . . . 50° N
Source Data	ARC/INFO data provided by U.S. Bureau of Mines
Processing Notes	Resource Data, Inc. completed edits and updates to the ARC/INFO data based on direction from Alaska Earth Sciences and the U.S. Bureau of Mines. Due to the size of the coverage, software limitations, and to facilitate mapping, the MTA data has been placed into a series of tiles. See map for tile locations.

Attribute Codes (see next page)

Attribute Codes

Data Item	Description	Valid Code	Code Description
AREA	ARC/INFO area in sq. meters	N/A	N/A
UNIT	Mineral terrane classifications		INTRUSIVE TERRANES
			Granitic Rocks
		IGU	Undivided granitic rocks
		IGA	Alkalic granitic rocks
		IGF	Felsic granitic rocks
		IGI	Intermediate granitic rocks
			Mafic-ultramafic rocks
		IMA	Mafic intrusive rocks
		IUM	Ultramafic rocks
			VOLCANIC-SEDIMENTARY TERRANES
			Felsic volcanic rocks
		VFU	Undivided felsic volcanic rk
		VFA	Alkalic felsic volcanic rocks
		VSF	Undivided sedimentary and felsic volcanic rocks
			Mafic Volcanic Rocks
		VMU	Undivided mafic volcanic rk
		VSM	Undivided sedimentary and mafic volcanic rocks
		VOP	Ophiolite terrane
			SEDIMENTARY TERRANES
			Marine Rocks
		SLS	Limestone and shale
		SBS	Black, carbonaceous shale and limestone
		SPS	Phosphatic shale
		SCH	Chert
			Continental Rocks
		SCG	Conglomerate
		SCB	Coal-bearing sandstone and shale
		SGS	Graywacke and shale
		SLU	Limestone

MTA LODE

Theme Description	Mineral Terranes of Alaska Lode Locations
Coverage Name	MTALODE
Topology	POINT
Map Projection	Alaska Standard Albers central meridian . . . . . 154° W standard parallels . . . . . 55° N and 65° N origin . . . . . 50° N
Source Data	ARC/INFO data provided by U.S. Bureau of Mines
Processing Notes	Resource Data, Inc. completed edits and updates to the ARC/INFO data based on direction from Alaska Earth Sciences and the U.S. Bureau of Mines.

Attribute Codes (see next page)

Attribute Codes

Data Item	Description	Sample/Valid Code	Code Description
SEQ	Unique sequence number	0020150007	See Minerals Availability System (MAS) Data Base "Deposit Information Manual and Data Dictionary", April 1993.
PROD	Product	Y	
CLASS	Earth Sciences Class	1 2 3 4	Major deposit Intermediate deposit Minor Deposit Occurrence, or very small mine deposit, or deposit with out enough information to evaluate.
NAM	Primary name of lode	KATAKTURUK RIVER	
TYP	Type of operation	Prospect	
LAT	Latitude coordinate	N693500	
LON	Longitude coordinate	W1453600	
COMM(1-5)	Mineral commodity types and modifiers	RARE EARTH	
BIB(1-3)	Bibliographic references	MF462	
MER	Meridian	UMIAT	
TWN	Township and direction	003 N	
RNG	Range and direction	027 E	
SEC	Section	19	
MAP	Digital map tile code	B	

MTA PLACER

Theme Description	Mineral Terranes of Alaska Placer Locations
Coverage Name	MTAPLAC
Topology	LINE
Map Projection	Alaska Standard Albers central meridian . . . . . 154° W standard parallels . . . . . 55° N and 65° N origin . . . . . 50° N
Source Data	ARC/INFO data provided by U.S. Bureau of Mines
Processing Notes	Resource Data, Inc. completed edits and updates to the ARC/INFO data based on direction from Alaska Earth Sciences and the U.S. Bureau of Mines.

Attribute Codes (see next page)

Attribute Codes

Data Item	Description	Sample Code	Code Description
Length	ARC/INFO length in meters	N/A	N/A
MPN	Map number	B15	See "Mineral Terranes of Alaska" map series, 1982.
SIZE	Prospect size	S	Small, Medium, Large
NAME	Prospect name	Nolan Creek Area (Wiseman)	See "Mineral Terranes of Alaska" map series, 1982.
COMM(1-5)	Mineral commodity type	Au	
TYPE	Deposit type	PL	
LODENO	Lode number	6	
REF(1-3)	Reference codes	5	
MAP	Digital map tile code	B	ARC/INFO map tile
NEWMAP	Digital map location code	B1	ARC/INFO map tile and location

Theme Name	Notes
COASTLINE	Represented as a single layer in the AutoCAD drawing file.
MAIN RIVERS	Represented as a single layer in the AutoCAD drawing file.
ROADS	Represented as a single layer in the AutoCAD drawing file.
PLACES	The drawing file contains a separate layer for each TYPE attribute. Each layer contains both the location and place name.
1:250000 USGS QUADS	Contains a layer (QUAD) for the Quadrangle lines and (TEXT) for the labels.
KMDA	Represented as a single layer in the AutoCAD drawing file.
MTA	Each drawing file contains a separate layer for each MTA unit classification. The MTA lode data and MTA placer data are also included as separate layers. The drawing files for the AutoCAD MTA data are named MAP_A.DWG, MAP_B.DWG, etc.

FGDC-Compliant Metadata for KMDA

```
Identification_Information:
  Citation:
    Originator: Resource Data, Inc.
    Publication_Date: published 10/12/95
    Publication_Time:
    Title: Mineral Terranes & Known Mineral Deposit Areas
    Edition:
    Geospatial_Data_Presentation_Form: map
    Series_Information:
      Series_Name: Open File Report
      Issue_Identification: 82-95
    Publication_Information:
      Publication_Place:
      Publisher: U.S. Bureau of Mines
    Other_Citation_Details: publication approved 10/12/95
    Online_Linkage:
    Larger_Work_Citation:

  Description:  Known Mineral Deposit Areas in Alaska
    Abstract:
   Known Mineral deposit areas (KMDA's) for the state of Alaska -
   Resource Data, Inc. completed a series of edits and updates to digital
data
   files for the U.S. Bureau of Mines  (USBM).  Revisions to the Mineral
   Terranes Areas of Alaska (MTA) maps were completed based on information
   and digital data supplied by the U.S. Bureau of Mines and Alaska Earth
   Sciences.  A new data set of Known Mineral Deposit Areas in Alaska
(KMDA)
   was also developed.

    Descriptors:
    known mineral deposit alaska


    Purpose:
  The compilation is designed to show areas of the state with potential
  for the discovery of resources of metallic minerals.

      Intended use of data
    Base layer for spatial analysis.


    Supplemental_Information:

  Known mineral deposit areas (KMDA's) for the state of Alaska were defined
  by Alaska Earth Sciences of Anchorage and the U.S. Bureau of Mines
Mineral
  Industry Location System (MILS) database.

  Resource Data, Inc. digitized the KMDA data from coded maps provided by
  Alaska Earth Sciences of Anchorage.

    Revisions made to data
    None.

    Reviews applied to data
```

```
The data were reviewed by Alaska  Earth Science of Anchorage and
the U.S. Bureau of Mines.

  Related spatial and tabular data sets and programs
  None.

  References cited


  Notes

Time_Period_of_content:
  Time_Period_Information:
    Range_of_Dates/Times:
      Beginning_Date: 11/1/95
      Ending_Date: Present
  Currentness_Reference:  Publication date of sources

Status:
  Progress:  Completed
  Maintenance_and_Update_Frequency:  Unknown

Spatial_Domain:
  Bounding_Coordinates:
    West_Bounding_Coordinate: -167.6229
    East_Bounding_Coordinate: -120.9061
    North_Bounding_Coordinate: 65.4580
    South_Bounding_Coordinate: 54.5030
  Data_Set_G-Polygon:
    Data_Set_G-Polygon_Outer G-Ring:

Keywords:
  Theme:
    Theme_Keyword_Thesaurus:  none
    Theme_Keyword:  KMDA
  Place:
    Place_Keyword_Thesaurus:  none
    Place_Keyword:  Alaska
  Stratum:
    Stratum_Keyword_Thesaurus:  none
    Stratum_Keyword:
  Temporal:
    Temporal_Keyword_Thesaurus:  none
    Temporal_Keyword:

Access_Constraints:  none

Use_Restrictions:
  Regional application in Alaska. Due to the size of the coverage,
software limitations, and to facilitate mapping, the KMDA data has been
placed into a series of tiles.


Point_of_Contact:
  Contact_Information:
  Contact_Person_Primary:
      Contact Person: Roger L. Baer
      Contact_Organization: U.S. Bureau of Mines, Alaska Field Operations
    Contact_Position: Physical Scientist
```

```
    Contact_Address:
      Address_Type: mailing address
      Address: PO Box 020550
      City: Juneau
      State_or_Province: AK
      Postal_Code: 99802
      Country: USA
    Contact_Voice_Telephone: (907) 364-2111
    Hours_of_Service: 0800 to 1430


Security_Information:
  Security_Classification_System:
  Security_Classification:  UNCLASSIFIED
  Security_Handling_Description:

Native_Data_Set_Environment: UNIX

Cross_Reference:
  Originator: U.S. Bureau of Mines/Resource Data Inc.
  Publication_Date:
  Publication_Time:
  Title: MINERAL TERRANES and KNOWN MINERAL DEPOSIT AREAS of ALASKA
  Edition:
  Geospatial_Data_Presentation_Form: map
  Series_Information:
    Series_Name: Open File Report
    Issue_Identification: 82-95
  Publication_Information:
    Publication_Place:
    Publisher: U.S. Bureau of Mines
  Other_Citation_Details: published as of 10/12/95
  Online_Linkage:
  Larger_Work_Citation:

Data_Quality_Information:

Attribute_Accuracy:
  Attribute_Accuracy_Report:  See Entity_Attribute_Information
  Quantitative_Attribute_Accuracy_Assessment:
    Attribute_Accuracy_Value:  See Explanation
    Attribute_Accuracy_Explanation:
      Attribute accuracy is described, where present, with each
      attribute defined in the Entity and Attribute Section.

Logical_Consistency_Report:  Polygon topology present.

Completeness_Report:  See Data Set Description Section

Positional_Accuracy:
  Horizontal_Positional_Accuracy:
    Horizontal_Positional_Accuracy_Report:
    Quantitative_Horizontal_Positional_Accuracy_Assessment:
  Horizontal_Positional_Accuracy_Value:
    Horizontal_Positional_Accuracy_Explanation:  Resolution as reported

Lineage: See Supplemental information.
  Source_Scale_Denominator:
  Type_of_Source_Media:
```

```
    Source_Time_Period_of_Content:
      Source_Currentness_Reference:
    Source_Citation_Abbreviation:
    Source_Contribution:
    Process_Step:
  Cloud_Cover:  Unknown

  Spatial_Data_Organization_Information:

  Direct_Spatial_Reference_Method:  Vector

  Point_and_Vector_Object_Information:
    SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type:  Point
        Point_and_Vector_Object_Count:  290
      SDTS_Point_and_Vector_Object_Type:  String
        Point_and_Vector_Object_Count:  840
      SDTS_Point_and_Vector_Object_Type:  GT-polygon composed of chains
        Point_and_Vector_Object_Count:  291

  Spatial_Reference_Information:
  Horizontal_Coordinate_System_Definition:
    Horizontal_Coordinate_System:  Planar
      Map_Projection:
        Map_Projection_Name:  ALBERS
        Projection_Parameters:
          Horizontal_Datum_Name:
          Ellipsoid_Name:  CLARKE1866
          Longitude_of_Central_Meridian:     -154
          Latitude_of_Projection_Origin:     50
          Latitude_of_First_Standard_Parallel:     55
          Latitude_of_Second_Standard_Parallel:     65
          False_Easting:  0.00000
          False_Northing:  0.00000
          X-Shift:  0.0000000000
          Y-Shift:  0.0000000000

Entity_Attribute_Information:
  Detailed_Description:
    Number_of_Attributes_in_Entity:  6
    Entity_Type:
      Entity_Type_label:  KMDA.PAT
      Entity_Type_Definition:  Kmda attributes
      Entity_Type_Definition_Source:  Generated
    Attribute:
      Attribute_Label:  -
      Attribute_Definition:  Kmda attributes
      Attribute_Definition_Source:  Generated
        Attribute_Domain_Values:
          Enumerated_Domain:
            Enumerated_Domain_Value:  -
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown
    Attribute:
      Attribute_Label:  AREA
      Attribute_Definition:  Area of poly/region in square coverage units
      Attribute_Definition_Source:  Computed
        Attribute_Domain_Values:
          Enumerated_Domain:
```

```
            Enumerated_Domain_Value:  Positive real numbers
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown
    Attribute:
      Attribute_Label:  PERIMETER
      Attribute_Definition:  Perimeter of poly/region in coverage units
      Attribute_Definition_Source:  Computed
        Attribute_Domain_Values:
          Enumerated_Domain:
            Enumerated_Domain_Value:  Positive real numbers
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown
    Attribute:
      Attribute_Label:  KMDA#
      Attribute_Definition:  Internal feature number
      Attribute_Definition_Source:  Computed
        Attribute_Domain_Values:
          Enumerated_Domain:
            Enumerated_Domain_Value:  Sequential unique positive integer
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown
    Attribute:
      Attribute_Label:  KMDA-ID
      Attribute_Definition:  User-assigned feature number
      Attribute_Definition_Source:  User-defined
        Attribute_Domain_Values:
          Enumerated_Domain:
            Enumerated_Domain_Value:  Integer
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown
    Attribute:
      Attribute_Label:  KMDA
      Attribute_Definition:  Flag polygon as a known mineral deposit area
      Attribute_Definition_Source:  Generated at time of compilation
        Attribute_Domain_Values:
          Enumerated_Domain:
            Enumerated_Domain_Value:  Y/N
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown

  Overview_Description:
    Entity_and_Attribute_Overview:
    Aside from system generated attributes the following attributes are
defined:
    MAP             Digital map tile code   ARC/INFO map tile code
    KMDA            KMDA flag               KMDA polygons are coded "Y"


    Entity_and_Attribute_Detail_Citation: Not Available

Distribution_Information:
  Distributor:
    Contact_Information:
    Contact_Person_Primary:
        Contact_Person: Roger L. Baer
        Contact_Organization: U.S. Bureau of Mines, Alaska Field Operations
      Contact_Position: Physical Scientist
      Contact_Address:
        Address_Type: mailing address
```

```
        Address: PO Box 020550
        City: Juneau
        State_or_Province: AK
        Postal_Code: 99802
        Country: USA
      Contact_Voice_Telephone: (907) 364-2111
      Hours_of_Service: 0800 to 1430
  Resource_Description: Known Mineral Deposit Areas/Mineral Terranes of AK
  Distribution_Liability: None
  Standard_Ordering_Process:

  Available_Time_Period:
    Beginning_Date/Time: November 1, 1995

  Distributor:
    Contact_Information:
    Contact_Person_Primary:
        Contact Person: Gary E. Sherman
        Contact_Organization: U.S. Bureau of Mines, Alaska Field Operations
Center
      Contact_Position: Supervisory Physical Scientist
      Contact_Address:
        Address_Type: mailing address
        Address: 3301 C Street, Suite 525
        City: Anchorage
        State_or_Province: AK
        Postal_Code: 99503
        Country: USA
      Contact_Voice_Telephone: (907) 271-2455
      Contact_Facsimile_Telephone: (907) 271-3933
      Contact_Electronic_Mail_Address: sherman@scoter.usbm.gov
      Hours_of_Service: 0800 to 1430
  Resource_Description: Known Mineral Deposit Areas/Mineral Terranes of AK
  Distribution_Liability: None
  Standard_Ordering_Process:
    Digital_Form:
      Digital_Transfer_Option:
        Online_Option:
          Computer_Contact_Information:
            Network_Address:
              Network_Resource_Name: anonymous ftp to
scoter.usbm.gov/pub/kmda
    Fees: None

  Available_Time_Period:
    Beginning_Date/Time: November 1, 1995

Metadata_Reference_Section:
  Metadata_Date: 19950927
  Metadata_Contact: sherman
  Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
  Metadata_Standard_Version:  19940608
  Metadata_Time_Convention:  Local Time
  Metadata_Security_Information:
    Metadata_Security_Classification_System:  None
    Metadata_Security_Classification:  UNCLASSIFIED
    Metadata_Security_Handling_Description:  None
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FGDC-Compliant Metadata for MTA

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Identification_Information:
  Citation:
    Originator: Resource Data, Inc.
    Publication_Date: published as of 10/12/95
    Publication_Time:
    Title: Mineral Terranes & Known Mineral Deposit Areas
    Edition:
    Geospatial_Data_Presentation_Form: map
    Series_Information:
      Series_Name: Open File Report
      Issue_Identification: 82-95
    Publication_Information:
      Publication_Place:
      Publisher: U.S. Bureau of Mines
    Other_Citation_Details: published 10/12/95
    Online_Linkage:
    Larger_Work_Citation:

  Description:  Mineral Terranes of Alaska
    Abstract:
   Mineral Terranes (MTAs) for the state of Alaska -
   Resource Data, Inc. completed a series of edits and updates to digital
   data files for the U.S. Bureau of Mines  (USBM).  Revisions to the
   Mineral Terranes Areas of Alaska (MTA) maps were completed based on
   information and digital data supplied by the U.S. Bureau of Mines and
   Alaska Earth Sciences.  A new data set of Known Mineral Deposit Areas in
   Alaska (KMDA) was also developed.

    Descriptors:
    mineral terranes alaska


    Purpose:
  The compilation is designed to show areas of the state with potential
  for the discovery of resources of metallic minerals.

      Intended use of data
    Base layer for spatial analysis.


    Supplemental_Information:

  Resource Data, Inc. completed edits and updates to the ARC/INFO data
based
  on direction from Alaska Earth Sciences and the U.S. Bureau of Mines.

    Revisions made to data
    None.

    Reviews applied to data
  The data were reviewed by Alaska  Earth Science of Anchorage and
  the U.S. Bureau of Mines.

    Related spatial and tabular data sets and programs
    None.
```

```
    References cited


    Notes


  Time_Period_of_content:
    Time_Period_Information:
      Range_of_Dates/Times:
        Beginning_Date: 11/1/95
        Ending_Date: Present
    Currentness_Reference:  Publication date of sources

  Status:
    Progress:  Completed
    Maintenance_and_Update_Frequency:  Unknown

  Spatial_Domain:
    Bounding_Coordinates:
      West_Bounding_Coordinate: -167.4997
      East_Bounding_Coordinate: -118.0243
      North_Bounding_Coordinate: 67.2148
      South_Bounding_Coordinate: 54.1546
    Data_Set_G-Polygon:
      Data_Set_G-Polygon_Outer G-Ring:

  Keywords:
    Theme:
      Theme_Keyword_Thesaurus:  none
      Theme_Keyword:  MTA
    Place:
      Place_Keyword_Thesaurus:  none
      Place_Keyword:  Alaska
    Stratum:
      Stratum_Keyword_Thesaurus:  none
      Stratum_Keyword:
    Temporal:
      Temporal_Keyword_Thesaurus:  none
      Temporal_Keyword:

  Access_Constraints:  none

  Use_Restrictions:
    Regional application in Alaska. Due to the size of the coverage,
software limitations, and to facilitate mapping, the mineral terrane data
has been placed into a series of tiles.


  Point_of_Contact:
    Contact_Information:
    Contact_Person_Primary:
        Contact Person: Roger L. Baer
        Contact_Organization: U.S. Bureau of Mines, Alaska Field Operations
      Contact_Position: Physical Scientist
      Contact_Address:
        Address_Type: mailing address
        Address: PO Box 020550
        City: Juneau
        State_or_Province: AK
```

```
      Postal_Code: 99802
      Country: USA
    Contact_Voice_Telephone: (907) 364-2111
    Hours_of_Service: 0800 to 1430


Security_Information:
  Security_Classification_System:
  Security_Classification:  UNCLASSIFIED
  Security_Handling_Description:

Native_Data_Set_Environment: unix

Cross_Reference:
  Originator: U.S. Bureau of Mines/Resource Data Inc.
  Publication_Date:
  Publication_Time:
  Title: MINERAL TERRANES and KNOWN MINERAL DEPOSIT AREAS of ALASKA
  Edition:
  Geospatial_Data_Presentation_Form: map
  Series_Information:
    Series_Name: Open File Report
    Issue_Identification: 82-95
  Publication_Information:
    Publication_Place:
    Publisher: U.S. Bureau of Mines
  Other_Citation_Details: published as of 10/12/95
  Online_Linkage:
  Larger_Work_Citation:

Data_Quality_Information:

Attribute_Accuracy:
  Attribute_Accuracy_Report:  See Entity_Attribute_Information
  Quantitative_Attribute_Accuracy_Assessment:
    Attribute_Accuracy_Value:  See Explanation
    Attribute_Accuracy_Explanation:
      Attribute accuracy is described, where present, with each
      attribute defined in the Entity and Attribute Section.

Logical_Consistency_Report:  Polygon topology present.

Completeness_Report:  See Data Set Description Section

Positional_Accuracy:
  Horizontal_Positional_Accuracy:
    Horizontal_Positional_Accuracy_Report:
    Quantitative_Horizontal_Positional_Accuracy_Assessment:
  Horizontal_Positional_Accuracy_Value:
    Horizontal_Positional_Accuracy_Explanation:  Resolution as reported

Lineage: See Supplemental information.
  Source_Scale_Denominator:
  Type_of_Source_Media:
  Source_Time_Period_of_Content:
    Source_Currentness_Reference:
  Source_Citation_Abbreviation:
  Source_Contribution:
  Process_Step:
```

```
Cloud_Cover:  Unknown

  Spatial_Data_Organization_Information:

  Direct_Spatial_Reference_Method:  Vector

  Point_and_Vector_Object_Information:
    SDTS_Terms_Description:
      SDTS_Point_and_Vector_Object_Type:  Point
        Point_and_Vector_Object_Count:  2183
      SDTS_Point_and_Vector_Object_Type:  String
        Point_and_Vector_Object_Count:  6252
      SDTS_Point_and_Vector_Object_Type:  GT-polygon composed of chains
        Point_and_Vector_Object_Count:  2184

  Spatial_Reference_Information:
  Horizontal_Coordinate_System_Definition:
    Horizontal_Coordinate_System:  Planar
      Map_Projection:
        Map_Projection_Name:  ALBERS
        Projection_Parameters:
          Horizontal_Datum_Name:
          Ellipsoid_Name:  CLARKE1866
          Longitude_of_Central_Meridian:      -154
          Latitude_of_Projection_Origin:      50
          Latitude_of_First_Standard_Parallel:      55
          Latitude_of_Second_Standard_Parallel:      65
          False_Easting:  0.00000
          False_Northing:  0.00000
          X-Shift:  0.0000000000
          Y-Shift:  0.0000000000

Entity_Attribute_Information:
  Detailed_Description:
    Number_of_Attributes_in_Entity:  8
    Entity_Type:
      Entity_Type_label:  MTA.PAT
      Entity_Type_Definition:  Mineral terranes of Alaska
      Entity_Type_Definition_Source:  Resource Data, Inc./Alaska Earth
Sciences/U.S. Bureau of Mines
    Attribute:
      Attribute_Label:  -
      Attribute_Definition:  Mineral terranes of Alaska
      Attribute_Definition_Source:  Resource Data, Inc./Alaska Earth
Sciences/U.S. Bureau of Mines
        Attribute_Domain_Values:
          Enumerated_Domain:
            Enumerated_Domain_Value:  -
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown
    Attribute:
      Attribute_Label:  AREA
      Attribute_Definition:  Area of poly/region in square coverage units
      Attribute_Definition_Source:  Computed
        Attribute_Domain_Values:
          Enumerated_Domain:
            Enumerated_Domain_Value:  Positive real numbers
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown
```

```
    Attribute:
      Attribute_Label:  PERIMETER
      Attribute_Definition:  Perimeter of poly/region in coverage units
      Attribute_Definition_Source:  Computed
        Attribute_Domain_Values:
          Enumerated_Domain:
            Enumerated_Domain_Value:  Positive real numbers
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown
    Attribute:
      Attribute_Label:  MTA#
      Attribute_Definition:  Internal feature number
      Attribute_Definition_Source:  Computed
        Attribute_Domain_Values:
          Enumerated_Domain:
            Enumerated_Domain_Value:  Sequential unique positive integer
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown
    Attribute:
      Attribute_Label:  MTA-ID
      Attribute_Definition:  User-assigned feature number
      Attribute_Definition_Source:  User-defined
        Attribute_Domain_Values:
          Enumerated_Domain:
            Enumerated_Domain_Value:  Integer
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown
    Attribute:
      Attribute_Label:  MAP
      Attribute_Definition:  Digital map tile code
      Attribute_Definition_Source:  Resource Data, Inc.
        Attribute_Domain_Values:
          Enumerated_Domain:
            Enumerated_Domain_Value:  A-E
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown
Attribute:
      Attribute_Label:  UNIT
      Attribute_Definition:  Mineral terrane classifications
      Attribute_Definition_Source:  Resource Data, Inc. et. al.
        Attribute_Domain_Values:
          Enumerated_Domain:
            Enumerated_Domain_Value:  Varied - see narrative description
        Attribute_Value_Accuracy_Information:
        Attribute_Measurement_Frequency:  Unknown

  Overview_Description:
    Entity_and_Attribute_Overview:
    Aside from system generated attributes the following attributes are
defined:
                    Mineral Terrane
    UNIT            classifications      INTRUSIVE TERRANES
                      Granitic Rocks
                         IGU             Undivided granitic rocks
                         IGA             Alkalic granitic rocks
                         IGF             Felsic granitic rocks
                         IGI             Intermediate granitic rocks

                        Mafic-ultramafic rocks
```

```
                          IMA             Mafic intrusive rocks
                          IUM             Ultramafic rocks

                                          VOLCANIC-SEDIMENTARY TERRANES
                        Felsic volcanic rocks
                          VFU             Undivided felsic volcanic rk
                          VFA             Alkalic felsic volcanic rocks
                          VSF             Undivided sedimentary and felsic
volcan

                        Mafic Volcanic Rocks
                          VMU             Undivided mafic volcanic rk
                          VSM             Undivided sedimentary and mafic
volcani
                          VOP             Ophiolite terrane

                                          SEDIMENTARY TERRANES
                         Marine Rocks
                           SLS             Limestone and shale
                           SBS             Black, carbonaceous shale and
limeston
                           SPS             Phosphatic shale
                           SCH             Chert

                         Continental Rocks
                           SCG             Conglomerate
                           SCB             Coal-bearing sandstone and shale
                           SGS             Graywacke and shale
                           SLU             Limestone


    Entity_and_Attribute_Detail_Citation: Not Available

Distribution_Information:
  Distributor:
    Contact_Information:
    Contact_Person_Primary:
        Contact_Person: Roger L. Baer
        Contact_Organization: U.S. Bureau of Mines, Alaska Field Operations
      Contact_Position: Physical Scientist
      Contact_Address:
        Address_Type: mailing address
        Address: PO Box 020550
        City: Juneau
        State_or_Province: AK
        Postal_Code: 99802
        Country: USA
      Contact_Voice_Telephone: (907) 364-2111
      Hours_of_Service: 0800 to 1430
  Resource_Description: Known Mineral Deposit Areas/Mineral Terranes of AK
  Distribution_Liability: None
  Standard_Ordering_Process:

  Available_Time_Period:
    Beginning_Date/Time: November 1, 1995

  Distributor:
    Contact_Information:
    Contact_Person_Primary:
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```
        Contact_Person: Gary E. Sherman
        Contact_Organization: U.S. Bureau of Mines, Alaska Field Operations
Center
      Contact_Position: Supervisory Physical Scientist
      Contact_Address:
        Address_Type: mailing address
        Address: 3301 C Street, Suite 525
        City: Anchorage
        State_or_Province: AK
        Postal_Code: 99503
        Country: USA
      Contact_Voice_Telephone: (907) 271-2455
      Contact_Facsimile_Telephone: (907) 271-3933
      Contact_Electronic_Mail_Address: sherman@scoter.usbm.gov
      Hours_of_Service: 0800 to 1430
  Resource_Description: Known Mineral Deposit Areas/Mineral Terranes of AK
  Distribution_Liability: None
  Standard_Ordering_Process:
    Digital_Form:
      Digital_Transfer_Option:
        Online_Option:
          Computer_Contact_Information:
            Network_Address:
              Network_Resource_Name: anonymous ftp to
scoter.usbm.gov/pub/kmda
    Fees: None

  Available_Time_Period:
    Beginning_Date/Time: November 1, 1995

Metadata_Reference_Section:
  Metadata_Date: 19950927
  Metadata_Contact: sherman
  Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
  Metadata_Standard_Version:  19940608
  Metadata_Time_Convention:  Local Time
  Metadata_Security_Information:
    Metadata_Security_Classification_System:  None
    Metadata_Security_Classification:  UNCLASSIFIED
    Metadata_Security_Handling_Description:  None
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