

Exploration Areas of the Eastern AUM Region



Data format: Shapefile

File or table name: E_Exploration_Areas

Coordinate system: Universal Transverse Mercator

Theme keywords: Uranium Deposits, Uranium Reserves, Uranium Exploration

Abstract: This is a polygon dataset that maps the extent of exploration areas within the Eastern AUM Region of the Navajo Nation. This was automated entirely from McLemore and Chenoweth, 1991 (S03030608), "Uranium Mines and Deposits in the Grants District, Cibola and McKinley Counties, New Mexico." (NM Bureau of Mines and Mineral Resources, OFR-353). This dataset identifies areas where unexploited (as of 1991) ore bodies have been identified, likely by drilling.

FGDC and ESRI Metadata:

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Metadata elements shown with blue text are defined in the Federal Geographic Data Committee's (FGDC) [Content Standard for Digital Geospatial Metadata \(CSDGM\)](#). Elements shown with green text are defined in the [ESRI Profile of the CSDGM](#). Elements shown with a green asterisk (*) will be automatically updated by ArcCatalog. ArcCatalog adds hints indicating which FGDC elements are mandatory; these are shown with gray text.

Identification Information:

Citation:

Citation information:

Originators: McLemore and Chenoweth, 1991

Title:

Exploration Areas of the Eastern AUM Region

***File or table name:** E_Exploration_Areas

Publication date: 1991

Geospatial data presentation form: map

Series information:

Series name: Open-file Report

Issue identification: 353

Publication information:

Publication place: Socorro, NM

Publisher: New Mexico Bureau of Mines and Mineral Resources

Other citation details:

S03030608 NMBMMR OFR-353

***Online linkage:** \\Terra_dc\Navajo\NAUM_NN_Summary\DB\AUM\E_Exploration_Areas.shp

Description:

Abstract:

This is a polygon dataset that maps the extent of exploration areas within the Eastern AUM Region of the Navajo Nation. This was automated entirely from McLemore and Chenoweth, 1991 (S03030608), "Uranium Mines and Deposits in the Grants District, Cibola and McKinley Counties, New Mexico." (NM Bureau of Mines and Mineral Resources, OFR-353). This dataset identifies areas where unexploited (as of 1991) ore bodies have been identified, likely by drilling.

Purpose:

This dataset was developed to support the U.S. Environmental Protection Agency (USEPA) in its undertaking of an extensive scientific study to determine if abandoned uranium mines (AUM) and related mine features pose a significant risk to human health and the environment, and to identify areas requiring action to reduce risk for the Navajo Nation.

***Language of dataset:** en

Time period of content:

Time period information:**Single date/time:**

Calendar date: 1991

Currentness reference:

publication date

Status:**Progress:** Complete**Maintenance and update frequency:** None planned**Spatial domain:****Bounding coordinates:*****West bounding coordinate:** -108.623593***East bounding coordinate:** -107.817706***North bounding coordinate:** 35.907157***South bounding coordinate:** 35.335399**Local bounding coordinates:*****Left bounding coordinate:** 715935.312500***Right bounding coordinate:** 787261.187500***Top bounding coordinate:** 3976296.250000***Bottom bounding coordinate:** 3914823.500000**Keywords:****Theme:****Theme keywords:** Uranium Deposits, Uranium Reserves, Uranium Exploration**Theme keyword thesaurus:** None**Place:****Place keywords:** Grants Uranum District, Eastern AUM Region, Navajo Nation, New Mexico, United States**Place keyword thesaurus:** None**Stratum:****Stratum keywords:** Underground**Access constraints:** None**Use constraints:**

These exploration areas are solely identified based upon McLemore and Chenoweth, 1991. These are located only in the Eastern AUM Region of the Navajo Nation.

Use of this data generally requires computer workstations with ESRI's Arc/Info (8.x or above), ArcGIS (8.x or above), or ArcView (3.x), or some other GIS or CAD software that is capable of reading or converting this dataset.

The data are provided "as-is," without warranty of any kind, either express or implied.

These data have been compiled as part of a desktop project to collect existing spatial data to support the study of Navajo abandoned uranium mines. No field verifications were undertaken as part of this desktop study.

Point of contact:**Contact information:****Contact organization primary:****Contact organization:** U. S. Environmental Protection Agency, Region 9, Superfund Program**Contact address:****Address type:** mailing and physical address**Address:**

75 Hawthorne St (SFD 8-2)

City: San Francisco**State or province:** CA**Postal code:** 94105**Country:** USA**Contact voice telephone:** 415-972-3167**Security information:****Security classification system:** None***Native dataset format:** Shapefile***Native data set environment:**

Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.1.0.780

[Back to Top](#)**Data Quality Information:****Attribute accuracy:****Attribute accuracy report:**

Checked agasint plates in McLemore and Chenoweth, 1991

Completeness report:

These exploration areas are solely identified based upon McLemore and Chenoweth, 1991. These are located only in the Eastern AUM Region of the Navajo Nation.

Positional accuracy:

Horizontal positional accuracy:

Horizontal positional accuracy report:

No more accurate than the large scale map plates in McLemore and Chenoweth, 1991.

Lineage:

Source information:

Source contribution:

Polygons and attribute information all from McLemore and Chenoweth, 1991 (S03030608), "Uranium Mines and Deposits in the Grants District, Cibola and McKinley Counties, New Mexico." (NM Bureau of Mines and Mineral Resources, OFR-353)

Process step:

Process description:

Map Plates 3-8 were each georeferenced. An empty polygon coverage with the following attributes was prepared:

Area - Area in square meters
 Perimeter - Perimeter in meters
 Explore_ID - Arbitrary unique ID
 ID - ID Code Number for Type
 Type - Type of exploration area / uranium reserves

The exploration area / uranium reserves were digitized and their attribute information was populated from map data.

Only the areas for the Navajo Nation and within one mile of the Navajo Nation were automated.

Process software and version: ESRI ArcGIS 9.1

Process date: July 2007

Process contact:

Contact information:

Contact organization primary:

Contact organization: TerraSpectra Geomatics

Contact address:

Address type: mailing and physical address

Address:

2700 E Sunset Rd, Ste A-10

City: Las Vegas

State or province: NV

Postal code: 89120

Country: USA

Contact voice telephone: 702-795-8254

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Spatial Data Organization Information:

***Direct spatial reference method:** Vector

Point and vector object information:

SDTS terms description:

***Name:** E_Exploration_Areas

***SDTS point and vector object type:** G-polygon

***Point and vector object count:** 326

ESRI terms description:

***Name:** E_Exploration_Areas

***ESRI feature type:** Simple

***ESRI feature geometry:** Polygon

***ESRI topology:** FALSE

***ESRI feature count:** 326

***Spatial index:** TRUE

***Linear referencing:** FALSE

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Spatial Reference Information:

Horizontal coordinate system definition:

Coordinate system name:

*Projected coordinate system name: NAD_1983_UTM_Zone_12N
 *Geographic coordinate system name: GCS_North_American_1983

Planar:

Grid coordinate system:

*Grid coordinate system name: Universal Transverse Mercator
 Universal Transverse Mercator
 *UTM zone number: 12
 Transverse mercator:
 *Scale factor at central meridian: 0.999600
 *Longitude of central meridian: -111.000000
 *Latitude of projection origin: 0.000000
 *False easting: 500000.000000
 *False northing: 0.000000

Planar coordinate information:

*Planar coordinate encoding method: coordinate pair
 Coordinate representation:
 *Abscissa resolution: 0.000128
 *Ordinate resolution: 0.000128
 *Planar distance units: meters

Geodetic model:

*Horizontal datum name: North American Datum of 1983
 *Ellipsoid name: Geodetic Reference System 80
 *Semi-major axis: 6378137.000000
 *Denominator of flattening ratio: 298.257222

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Entity and Attribute Information:

Detailed description:

*Name: E_Exploration_Areas

Entity type:

*Entity type label: E_Exploration_Areas
 *Entity type type: Feature Class
 *Entity type count: 326

Entity type definition:

Eastern AUM Region Exploration Areas

Attribute:

*Attribute label: FID
 *Attribute alias: FID
 *Attribute definition:
 Internal feature number.
 *Attribute definition source:
 ESRI

 *Attribute type: OID
 *Attribute width: 4
 *Attribute precision: 0
 *Attribute scale: 0

Attribute domain values:

*Unrepresentable domain:
 Sequential unique whole numbers that are automatically generated.

Attribute:

*Attribute label: Shape
 *Attribute alias: Shape
 *Attribute definition:
 Feature geometry.
 *Attribute definition source:
 ESRI

 *Attribute type: Geometry
 *Attribute width: 0
 *Attribute precision: 0
 *Attribute scale: 0

Attribute domain values:

*Unrepresentable domain:
 Coordinates defining the features.

Attribute:

*Attribute label: AREA

*Attribute alias: AREA
 *Attribute type: Number
 *Attribute width: 19
 *Attribute number of decimals: 11

Attribute:

*Attribute label: PERIMETER
 *Attribute alias: PERIMETER
 *Attribute type: Number
 *Attribute width: 19
 *Attribute number of decimals: 11

Attribute:

*Attribute label: EXPLORE_ID
 *Attribute alias: EXPLORE_ID
 *Attribute type: Number
 *Attribute width: 9

Attribute:

*Attribute label: ID
 *Attribute alias: ID
 *Attribute type: Number
 *Attribute width: 4

Attribute:

*Attribute label: Type
 *Attribute alias: Type
 *Attribute type: String
 *Attribute width: 200

Overview description:**Dataset overview:**

There are 326 polygons.

Entity and attribute overview:

There are five thematic attributes:

Area - Area in square meters
 Perimeter - Perimeter in meters
 Explore_ID - Arbitrary unique ID
 ID - ID Code Number for Type
 Type - Type of exploration area / uranium reserves

```
>ID      Type
>===
>1      Uranium Mineralization Deposit of any Stratigraphic Horizon in the Westwater Canyon Member
>1      Approximate Outline of Mineralization of >= 0.01% U308, Westwater Canyon Member, Morrison Formation
>2      Approximate Outline of Mineralization of >= 0.01% U308, Westwater Canyon Member, Morrison Formation, Inferred
>3      Uranium Mineralized Deposits in Westwater Canyon Member, Morrison Formation, Approximate Boundaries, Reserves May Still Be Present
>4      Approximate Outline of Mineralization of >= 0.01% U308, Brushy Basin Member, Morrison Formation
>4      Uranium Mineralized Deposits in Westwater Canyon Member, Morrison Formation, Approximate Boundaries, Reserves Never Mined
>5      Uranium Mineralized Deposits in Morrison Formation, Approximate Boundaries
>5      Uranium Mineralization in Morrison Formation
>7      Uranium Deposits in Poison Canyon Sandstone (of economic usage), Morrison Formation, Approximate Boundaries
>11     Uranium Mineralization in Dakota Formation
>13     Uranium Mineralization of Brushy Basin Member, Morrison Formation, Approximate Boundaries
>14     Uranium Mineralized Deposit Not Mined
>15     Uranium Mineralization Deposit of any Stratigraphic Horizon in the Westwater Canyon Member, Inferred
```

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Distribution Information:**Distributor:****Contact information:****Contact organization primary:**

Contact organization: U. S. Environmental Protection Agency, Region 9, Superfund Records Center

Contact address:

Address type: mailing address
Address:
 95 Hawthorne St (SFD-7C)
City: San Francisco
State or province: CA
Postal code: 94105

Country: USA

Contact voice telephone: 415-536-2033

Distribution liability:

Although these data have been processed successfully on a computer system for the USEPA, no warranty expressed or implied is made by the USEPA or its contractors regarding the utility of the data on any other system, nor shall the act of distribution constitute any such warranty. No responsibility is assumed by USEPA or its contractors in the use of these data.

Standard order process:

Digital form:

Digital transfer information:

***Transfer size:** 0.182

***Dataset size:** 0.182

Custom order process:

Contact the USEPA for a custom order.

Technical prerequisites:

Use of this data generally requires computer workstations with ESRI's Arc/Info (8.x or above), ArcGIS (8.x or above), or ArcView (3.x), or some other GIS or CAD software that is capable of reading or converting this dataset.

Available time period:

Time period information:

Single date/time:

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Metadata Reference Information:

***Metadata date:** 20070720

***Language of metadata:** en

Metadata contact:

Contact information:

Contact person primary:

Contact person: Andrew Bain

Contact organization: U. S. Environmental Protection Agency, Region 9, Superfund Program

Contact position: Project Manager

Contact address:

Address type: mailing and physical address

Address:

75 Hawthorne St (SFD 8-2)

City: San Francisco

State or province: CA

Postal code: 94105

Country: USA

Contact voice telephone: 415-972-3167

***Metadata standard name:** FGDC Content Standards for Digital Geospatial Metadata

***Metadata standard version:** FGDC-STD-001-1998

***Metadata time convention:** local time

Metadata access constraints: None.

Metadata use constraints:

None.

Metadata security information:

Metadata security classification system: None

Metadata extensions:

***Online linkage:** <http://www.esri.com/metadata/esriprof80.html>

***Profile name:** ESRI Metadata Profile

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Binary Enclosures:

Thumbnail:

Enclosure type: Picture



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