



Aerial Survey

Using ArcGIS Collector



Minnkota Power
MPC COOPERATIVE, INC.

Your Touchstone Energy® Partner 

Purpose of work

- Not all plaques on poles are visible due to factors such as age, damage, not being placed on every pole but every nth pole (usually the 5th).
- Pilot would have to circle poles or count from a visible plaque and circle while writing down notes.



So We Needed to Find a Solution

We were flying low and the numbers on the poles were hard to read, either from:

- Age (washed out)
- Being too small (we were still flying at 80mph)
- Being numbered inconsistently



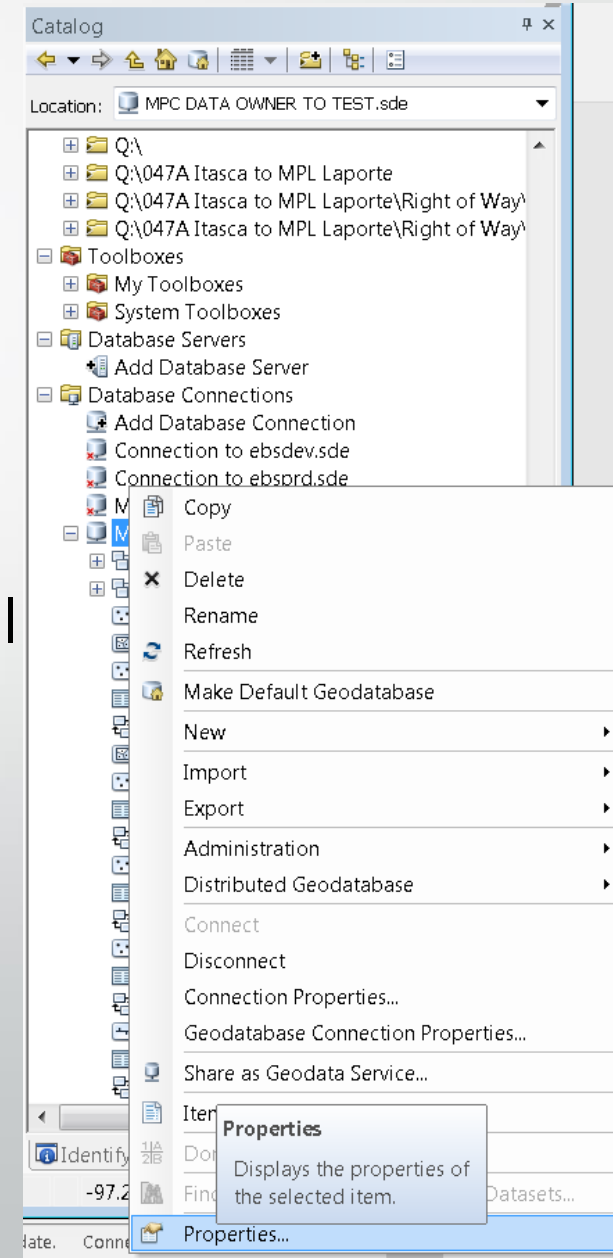
What a new pole label looks like



Creating Domains

It Is Necessary to Have a Feature Class With Domains For Collector to Display the Map

- How do we move from handwritten notes to ones that will automatically populate in our enterprise Geodatabase?
 - Domains



Fill Out the Domain Properties So We Can Add A Section For Notes

Insert a name for the domain



We want the properties to be text so we can enter notes



Database Properties

General Domains Connections Editor Tracking

Domain Owner	Domain Name	Description
MPCGIS	Danger_Trees	Danger Trees
MPCGIS	Date	Date
MPCGIS	Date_1	Date
MPCGIS	Date_2	Date
MPCGIS	Date_3	Date
MPCGIS	demo_flight	demo flight
MPCGIS	Demo_flight_notes1	demo flight notes 1
MPCGIS	Freq_year	Frequency of Years

Domain Properties:

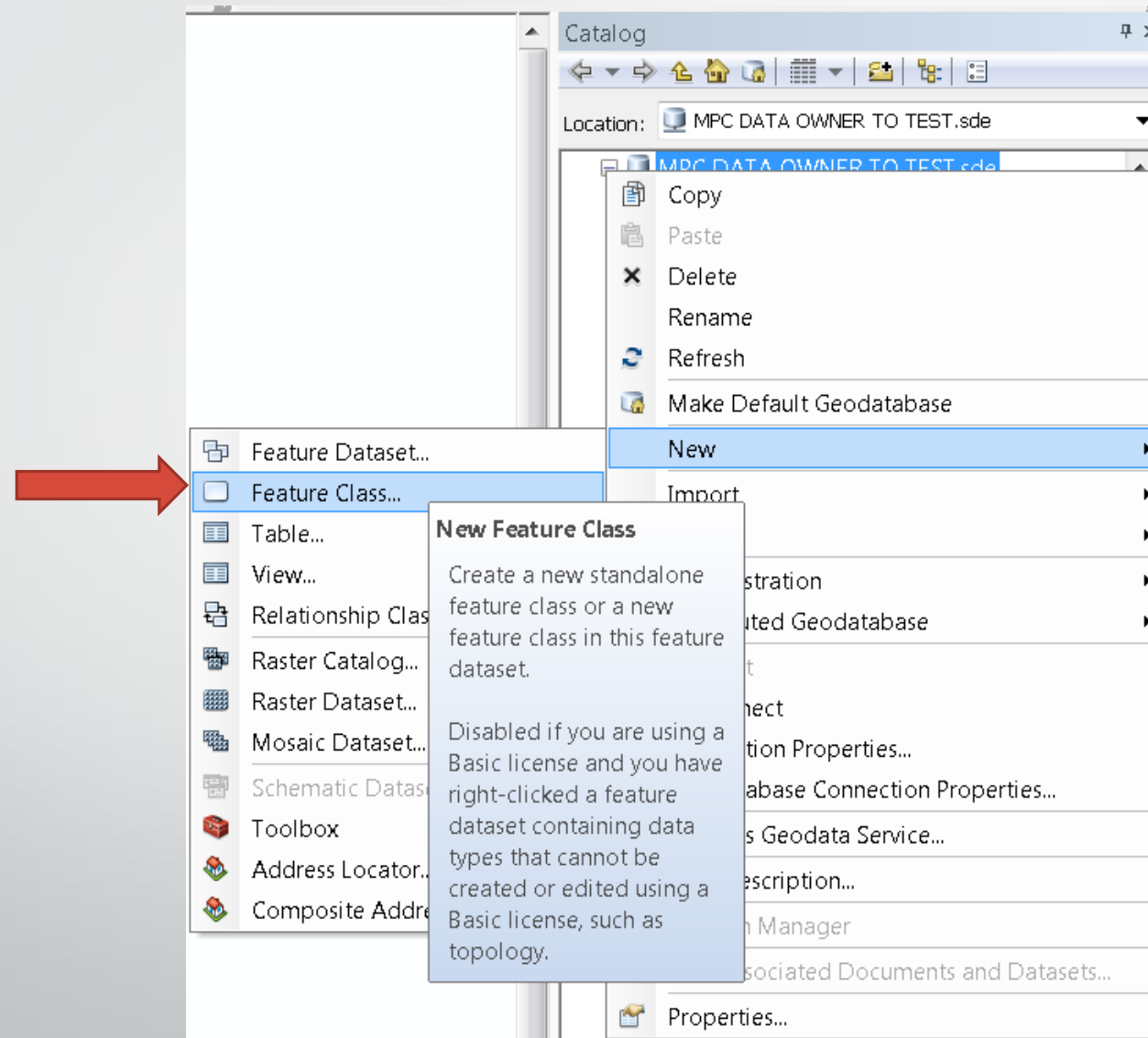
Field Type	Text
Domain Type	Coded Values
Split policy	Default Value
Merge policy	Default Value

Coded Values:

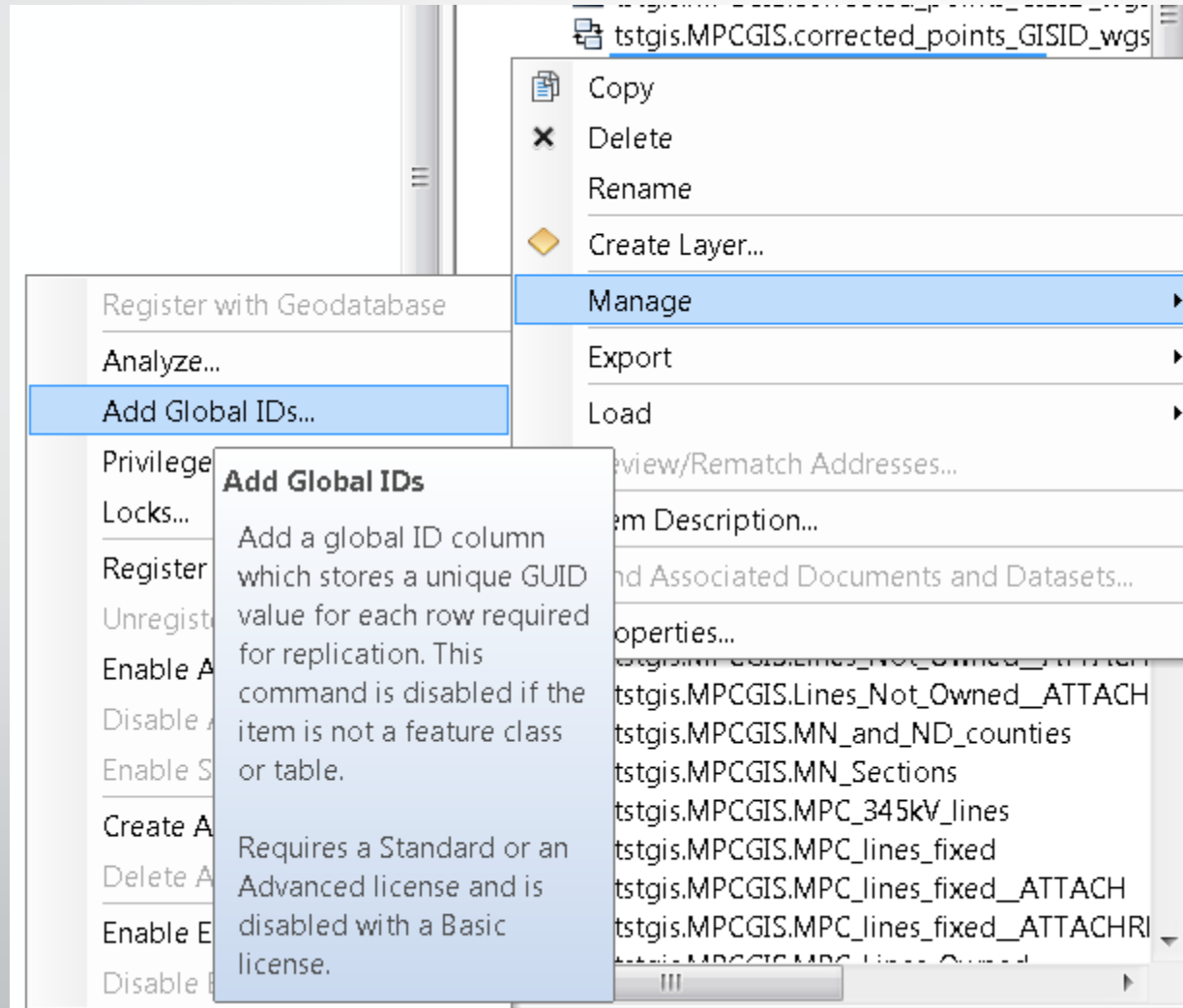
Code	Description

OK Cancel Apply

Create a Feature Class to Take Notes In



Add Global ID's, Add Privileges, and Register As Versioned



Add Global ID's, Add Privileges, and Register As Versioned

Register with Geodatabase
Analyze...
Add Global IDs...
Privileges...
Lock
Register As Versioned...
Enable Attachments
Disable Attachments
Create Attachments
Delete Attachments
Enable Editor Tracking...
Disable Editor Tracking

Privileges
Grant or revoke privileges on the selected dataset.
Only the data owner can alter privileges.

Copy
Delete
Rename
Create Layer...
Manage
Export
Load
Review/Rematch Addresses...
Item Description...
Find Associated Documents and Datasets...
Properties...

tstgis.MPCGIS.Lines_Not_Ov
tstgis.MPCGIS.MN_and_ND_...
tstgis.MPCGIS.MN_Sections
tstgis.MPCGIS.MPC_345kV_I
tstgis.MPCGIS.MPC_lines_fix
tstgis.MPCGIS.MPC_lines_fix
tstgis.MPCGIS.MPC_lines_fix
tstgis.MPCGIS.MPC_lines_O

78311515.672 -616019.789 M

Privileges
tstgis.MPCGIS.Demo_Flight_Notes

User/Role	Select	Insert	Update	Delete
sde	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MPCI\G_A_GISEditors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Add OK Cancel Apply

Copy
Delete
Rename
Create Layer...
Manage
Export
Load
Review/Rematch Addresses...
Item Description...
Find Associated Documents and Datasets...
Properties...

Register with Geodatabase
Analyze...
Add Global IDs...
Privileges...
Locks...
Register As Versioned...
Unregister As Versioned...
Enable Attachments
Disable Attachments
Create Attachments
Delete Attachments
Enable Editor Tracking...
Disable Editor Tracking

Register As Versioned
Register data as versioned to allow concurrent editing.
Only the data owner can register it as versioned.

tstgis.MPCGIS.Lines_Not_Owned__ATTACH
tstgis.MPCGIS.MN_and_ND_counties
tstgis.MPCGIS.MN_Sections
tstgis.MPCGIS.MPC_345kV_lines
tstgis.MPCGIS.MPC_lines_fixed
tstgis.MPCGIS.MPC_lines_fixed__ATTACH
tstgis.MPCGIS.MPC_lines_fixed__ATTACHRI
tstgis.MPCGIS.MPC_lines_Owned

Share This as A Service

The image shows a software interface with two main components:

- Table Of Contents:** A window on the left with a title bar containing a maximize icon and a close icon. Below the title bar is a toolbar with icons for home, save, print, and a list. The main content area is titled "Layers" and contains a single item: "Demo Flight Notes" with a small blue square icon below it.
- Share as Service:** A dialog box on the right with a title bar containing a close icon. The dialog contains:
 - An icon on the left showing a central server icon with a yellow arrow pointing to it from the left, and six white arrows pointing outwards to the right, representing service distribution.
 - Three radio button options:
 - Publish a service
 - Save a service definition file
 - Overwrite an existing service
 - A blue hyperlink: [About sharing a service](#)
 - Two buttons at the bottom right: "Next >" and "Cancel".

Publish As a Service

Service Editor

Connection: arcgisserver on esritst.minnkota.com (publisher) Service Name: Demo_Fligh... Import Analyze Preview Publish

General
Parameters
Capabilities
Mapping
Feature Access
Pooling
Processes
Caching
Item Description
Sharing

Capabilities

Choose the capabilities you would like enabled for this service:

- Mapping (always enabled)
- Schematics
- WCS
- WFS
- Network Analysis
- KML
- WMS
- Feature Access
- Mobile Data Access

Service Editor

Connection: arcgisserver on esritst.minnkota.com (publisher) Service Name: Demo_Fligh... Import Analyze Preview Publish

General
Parameters
Capabilities
Mapping
Feature Access
Pooling
Processes
Caching
Item Description
Sharing

Feature Access

REST URL:

SOAP URL:

Operations allowed:

- Create
- Delete
- Extract
- Query
- Sync
- Update

Properties

- Allow geometry updates
 Allow update of true curves
- Apply default z-value
When inserting or updating features with no z-values, set z-value to:
- Enable ownership-based access control on features
Operations allowed on features created by other users :
 Query Update Delete

Advanced Options...

Service Editor

Connection: arcgisserver on esritst.minnkota.com (publisher) Service Name: Demo_Fligh... Import Analyze Preview Publish

General
Parameters
Capabilities
Mapping
Feature Access
Pooling
Processes
Caching
Item Description
Sharing

Item Description

Summary:


Tags:

Description:

Access and Use Constraints:

Credits:

- Update missing metadata in document based on item description



We Will Use the Domains we Created Later

We Took Two Routes To Display the Data

- One connected to portal using VPN (Virtual Private Network)
 - This allowed us to display the map with labels
- The other using offline mode (which can at times be daunting to get working)
 - With this you can select the point and attribute data is queried; however, it does not label the poles.

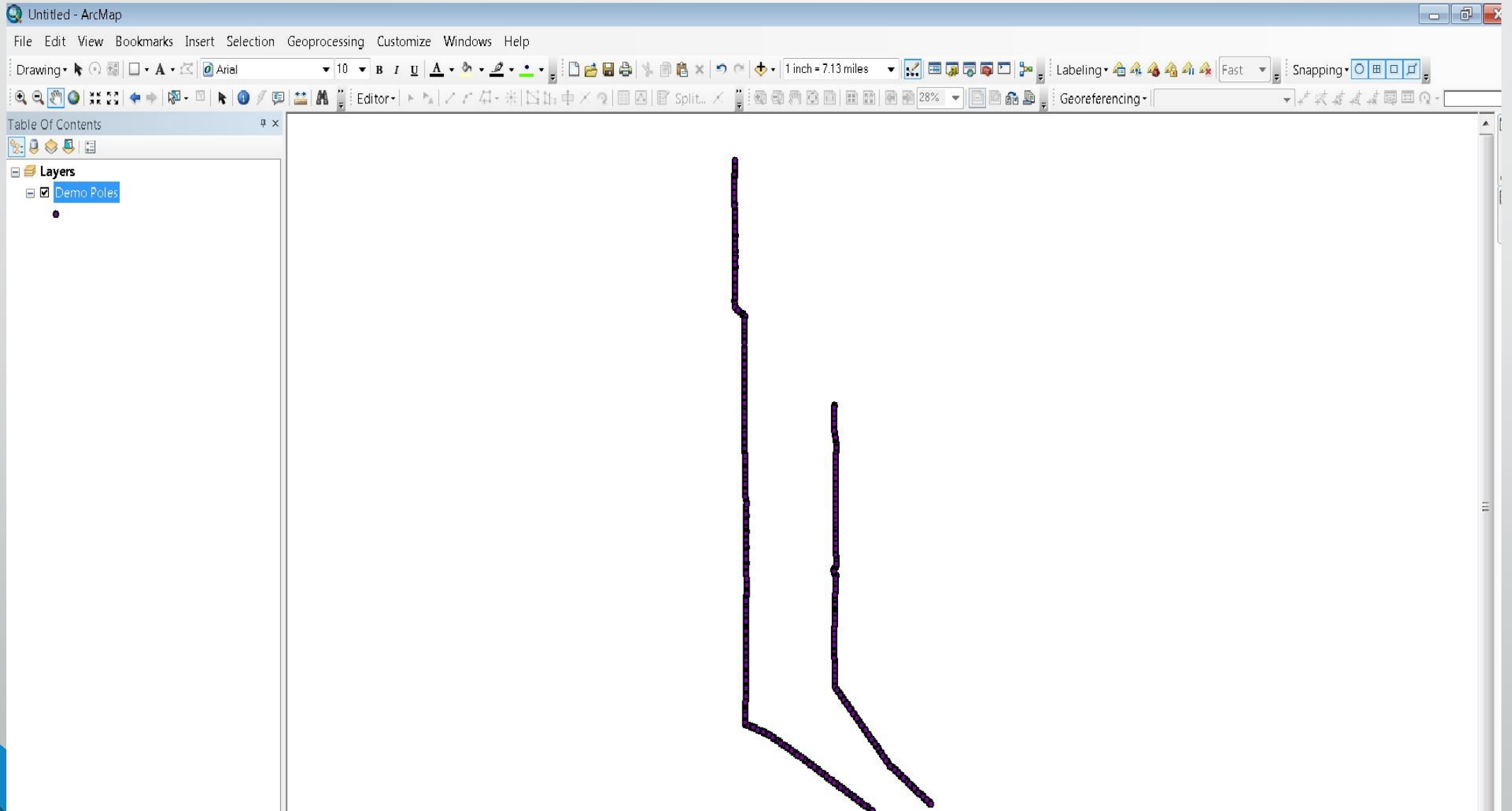
VPN

A **virtual private network (VPN)** extends a [private network](#) across a public network, such as the [Internet](#). It enables users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network. Applications running across the VPN may therefore benefit from the functionality, security, and management of the private network. (Mason, Andrew G. (2002). *Cisco Secure Virtual Private Network*. Cisco Press. p. 7.)

- Pros
 - Workaround let us use labels
- Cons
 - Uses up a lot of data
 - Over 1 gigabyte on a 250 mile flight

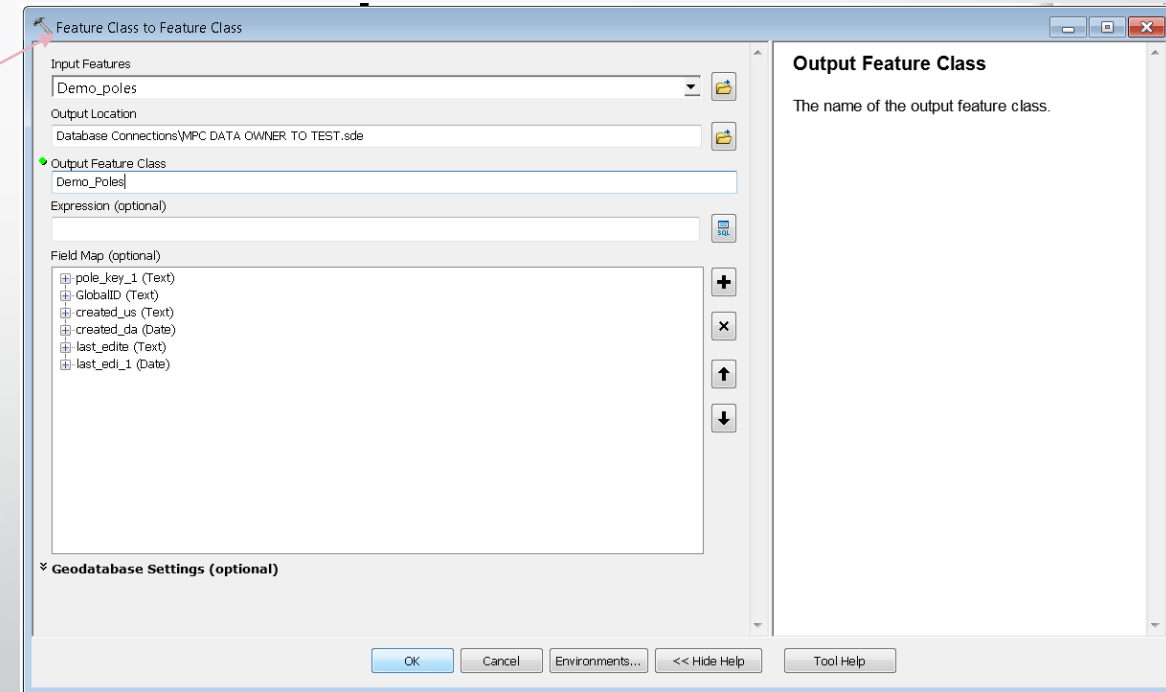
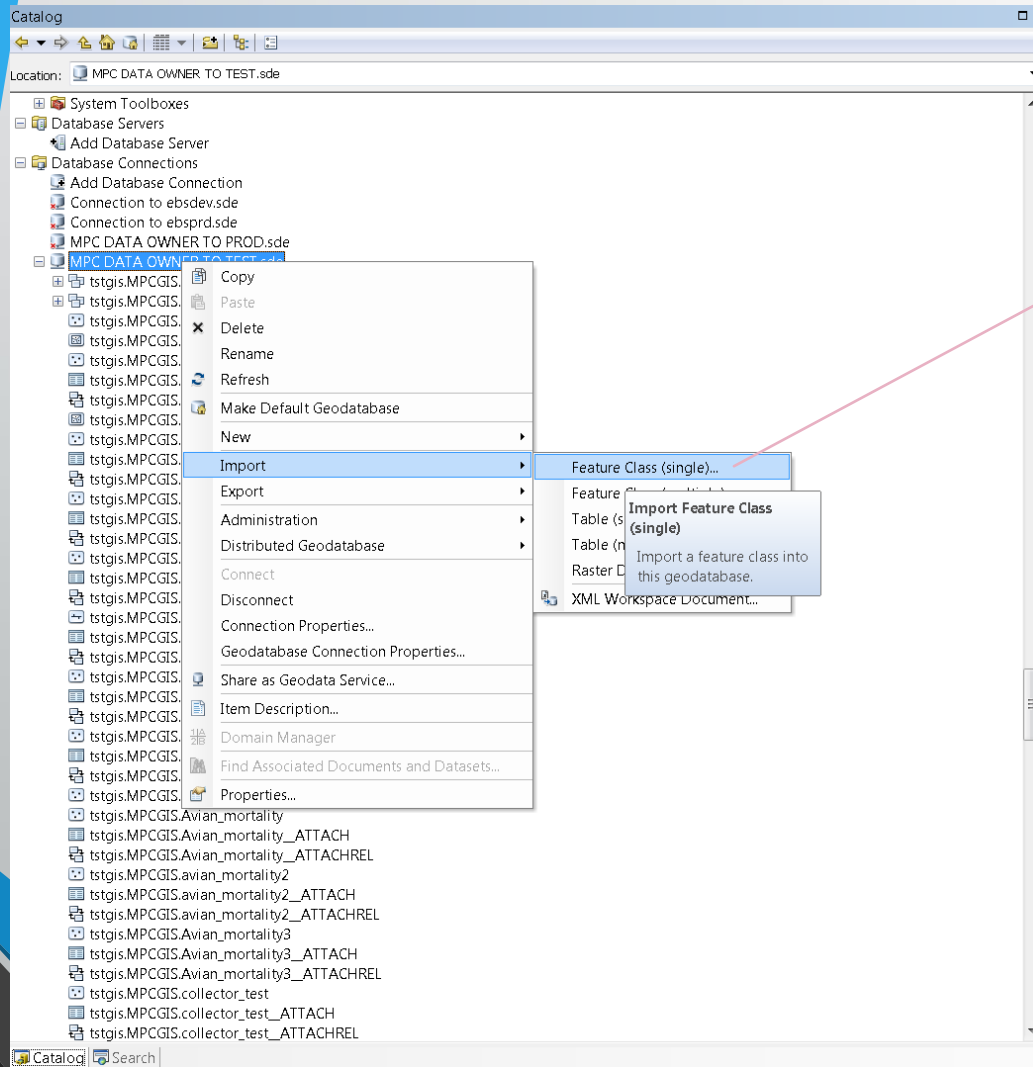


First Add a Dataset to ArcMap



Import the Feature Class Into Your Server Geodatabase

You can also use the Feature Class to Feature Class tool form Arc Toolbox



Create Global IDs

The screenshot shows the ArcGIS Desktop interface with a context menu open over a layer named 'tstgis.MPCGIS.Landing_Points'. The 'Add Global IDs...' option is highlighted. A tooltip for this option provides the following information:

Add Global IDs
Add a global ID column which stores a unique GUID value for each row required for replication. This command is disabled if the item is not a feature class or table.

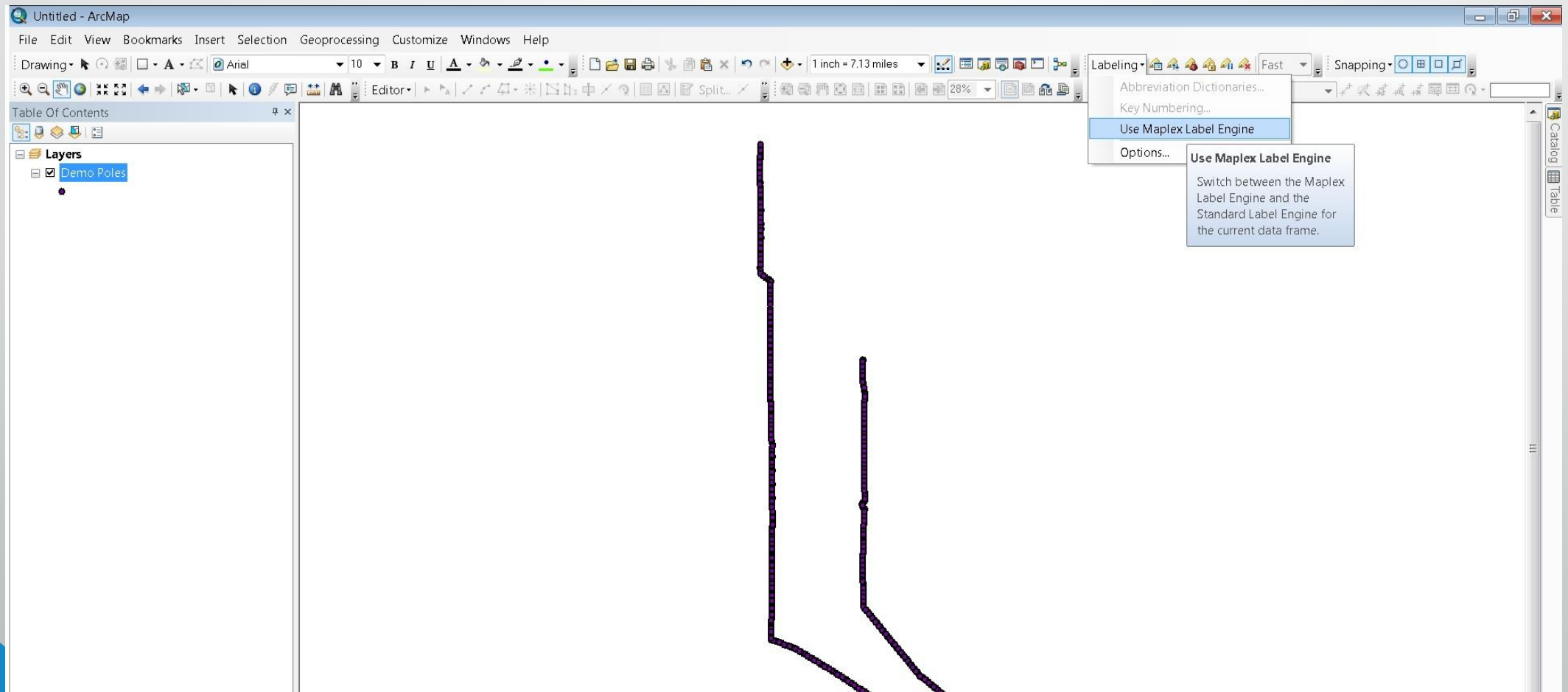
Create Attachments
Requires a Standard or an Advanced license and is disabled with a Basic license.

Enable Editor Tracking
Requires a Standard or an Advanced license and is disabled with a Basic license.

Disable Editor Tracking

The context menu also includes options such as Copy, Delete, Rename, Create Layer..., Manage, Export, Load, Review/Rematch Addresses..., Item Description..., Find Associated Documents and Datasets..., and Properties... The 'Manage' sub-menu is also visible, containing Register with Geodatabase, Analyze..., Add Global IDs..., Privileges..., Locks..., Register As Versioned, Unregister As Versioned, Enable Archiving, Disable Archiving, Enable SQL Access, Create Attachments, Delete Attachments, Enable Editor Tracking, and Disable Editor Tracking.

Add the Feature Class to The map Project, Then Label the Features



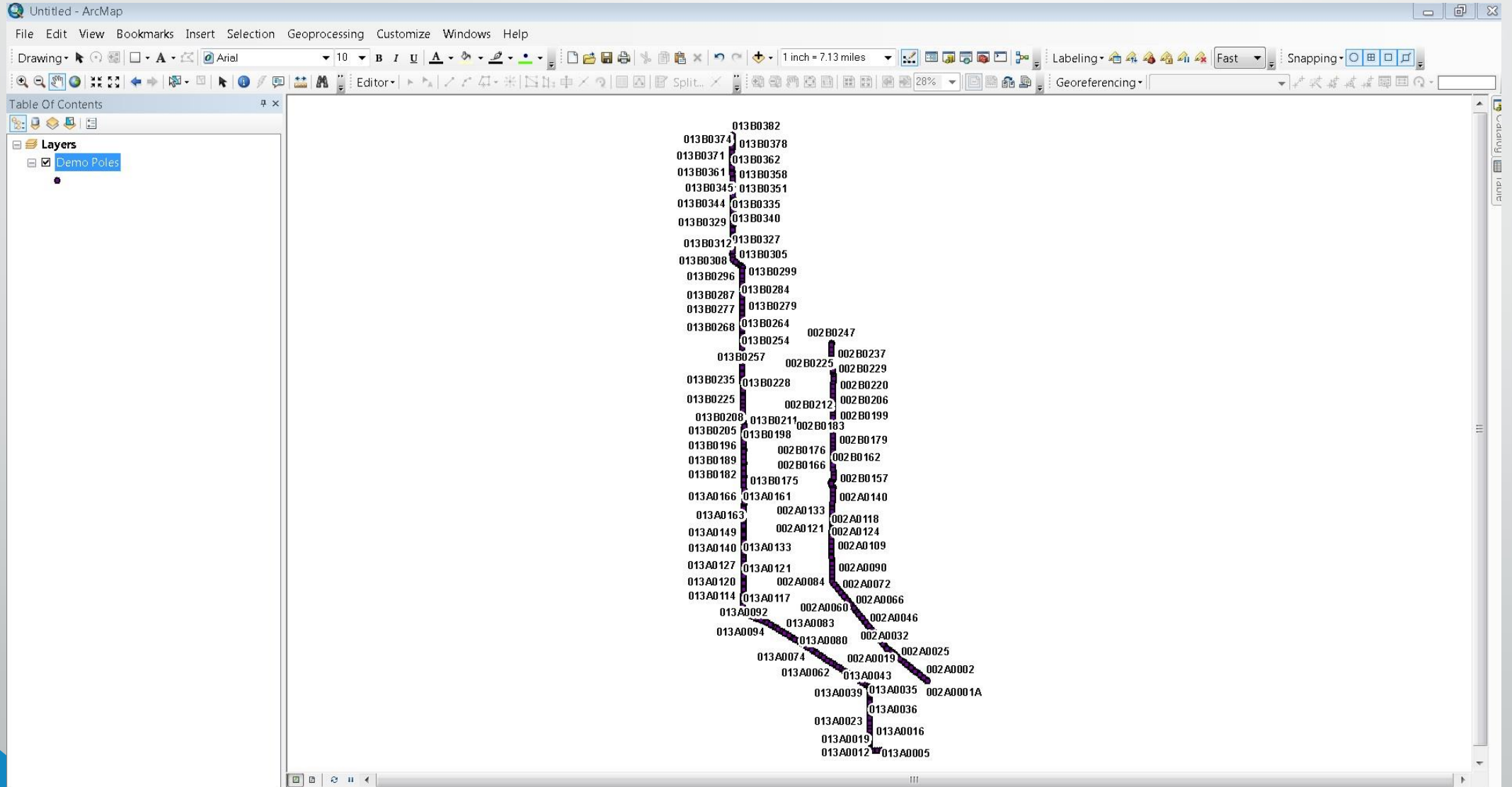
I Add a 2pt White Halo to Make It Easier to Read on the Basemap

The image illustrates the steps to add a white halo to a text symbol in ArcGIS. It consists of three screenshots:

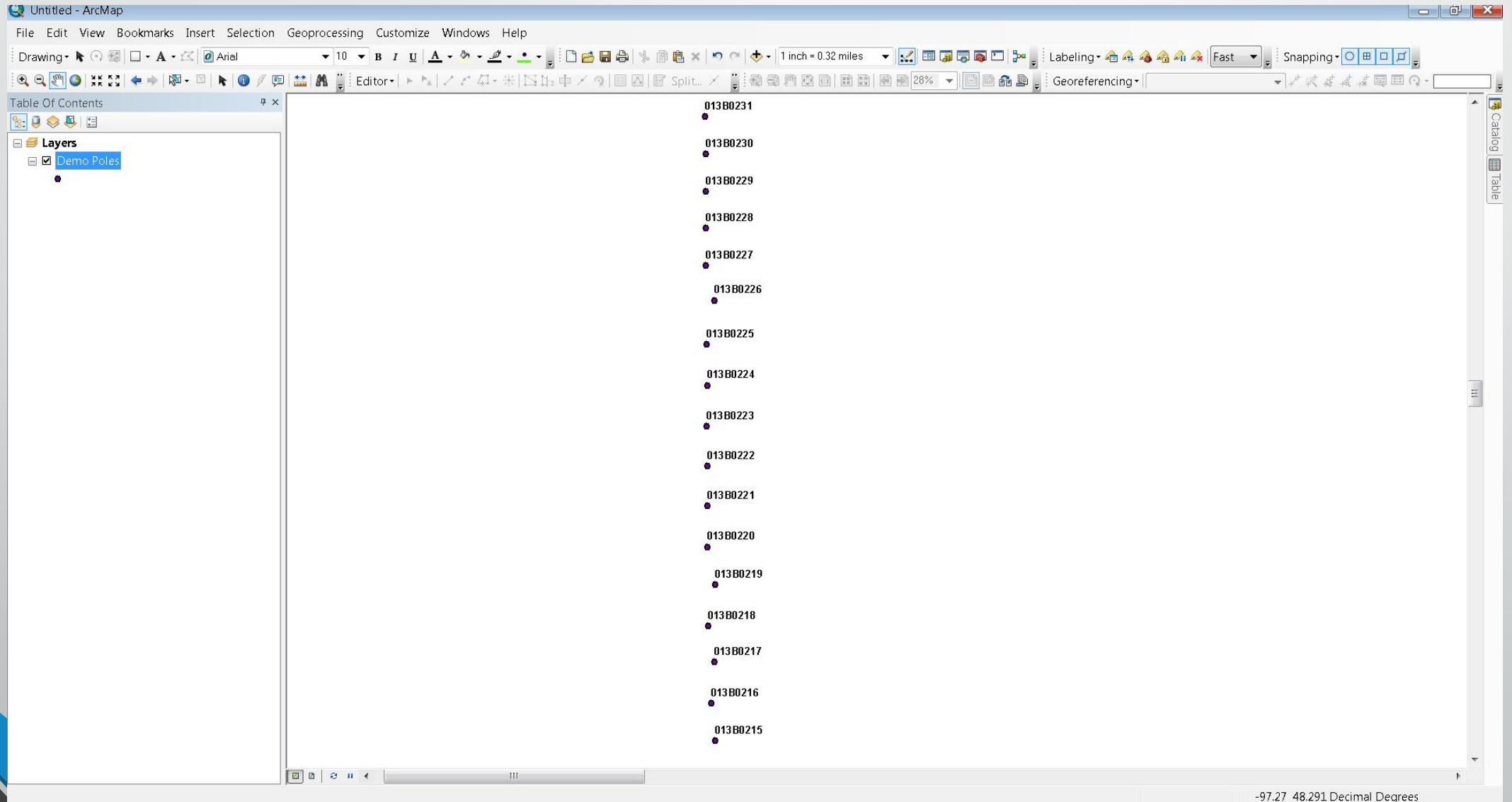
- Label Manager:** Shows the 'Text Symbol' section where the 'Symbol...' button is highlighted with a red arrow.
- Symbol Selector:** Shows the 'Edit Symbol...' button highlighted with a red arrow.
- Properties (Text Symbol):** Shows the 'Mask' tab where the 'Halo' radio button is selected (highlighted with a red arrow) and the 'Symbol...' button is highlighted with another red arrow.

The text 'AaBbYyZz' is shown in the background of the bottom-right dialog, demonstrating the effect of the halo.

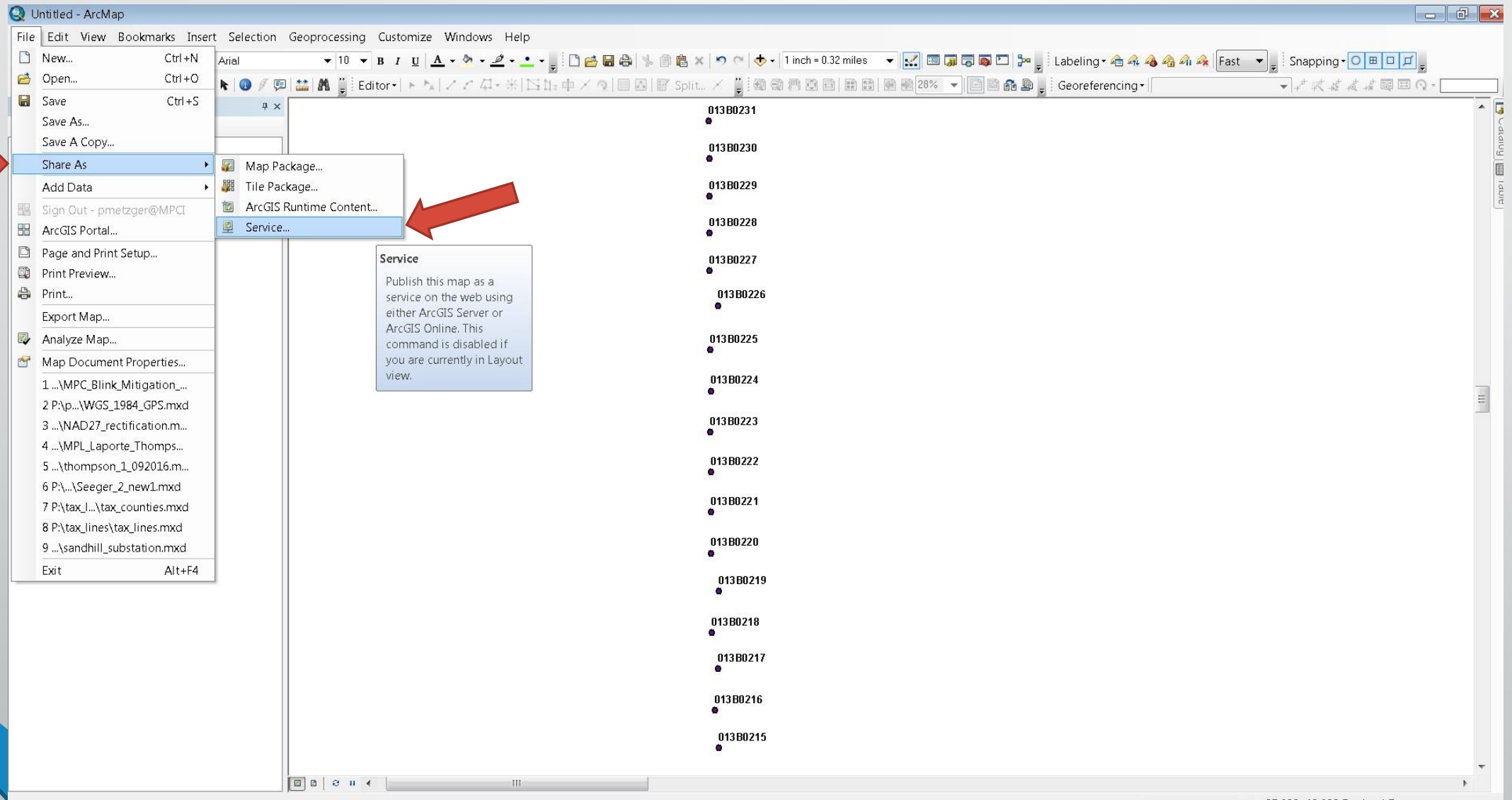
And Voila! Our Points Are Labeled



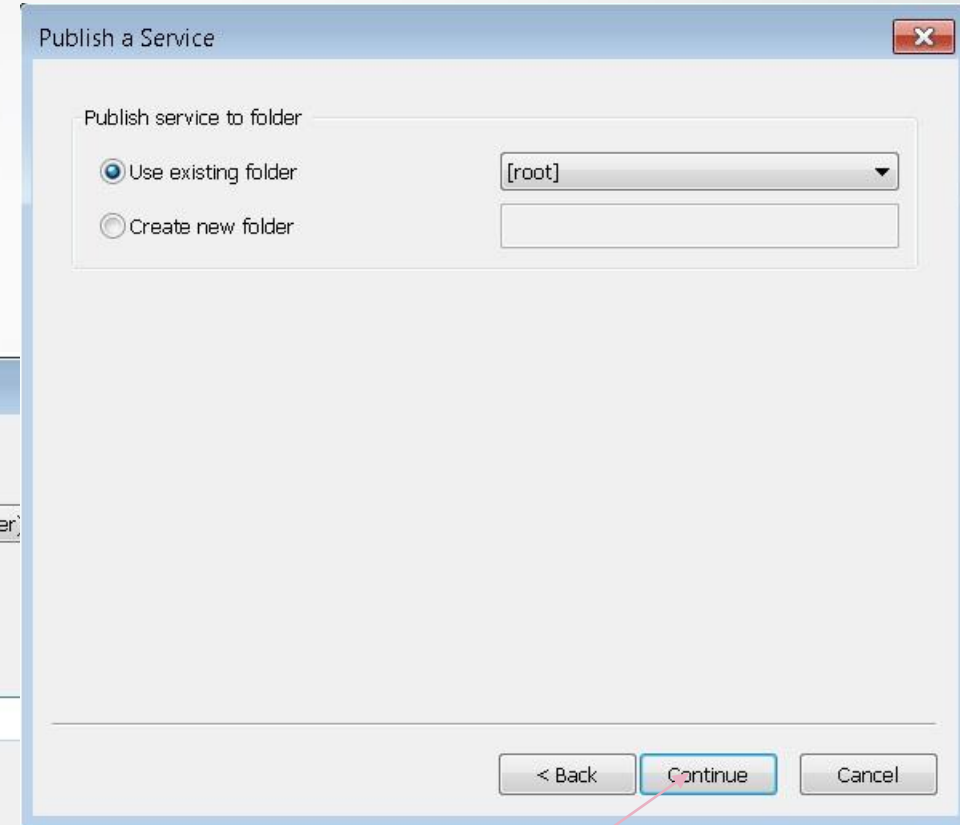
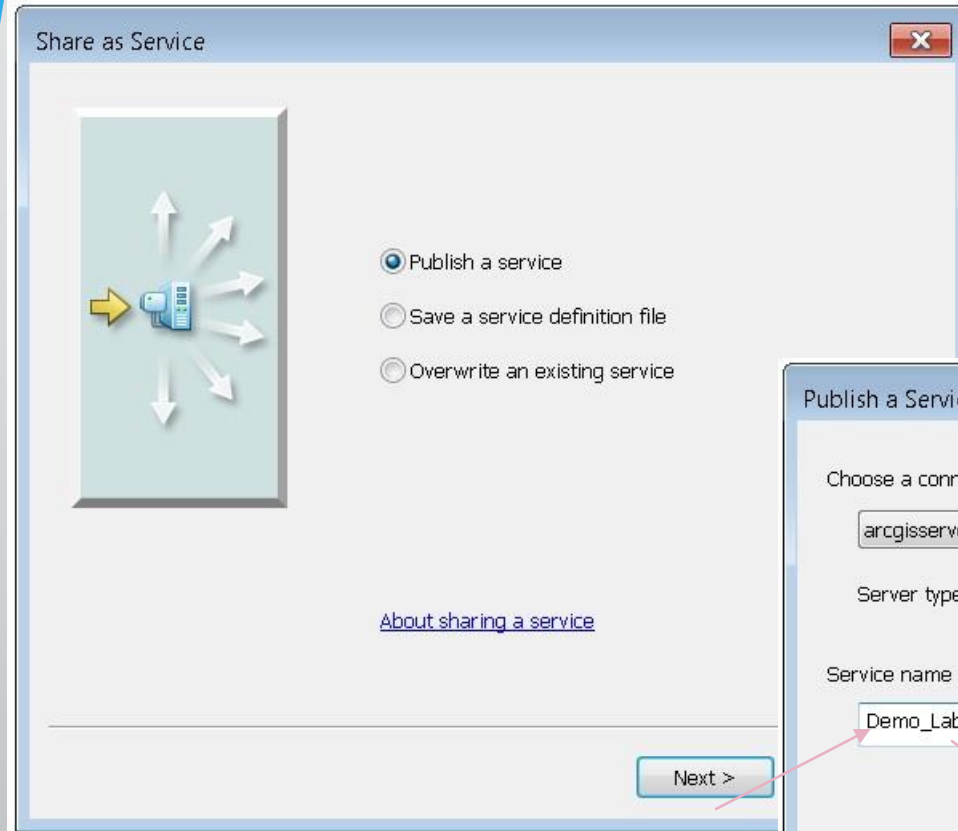
Not All the Labels are Drawing At This Scale, But If We Zoom In We Can See They're All Being Drawn



Now We Want To Share This With Our Portal



Click Through the Windows and Give the Service a Name



Make This a Feature Service

Service Editor

Connection: arcgisserver on esritst.minnkota.com (publisher) Service Name: Demo_Labels

General
Parameters
Capabilities
Mapping
Feature Access
Pooling
Processes
Caching
Item Description
Sharing

Capabilities

Choose the capabilities you would like enabled for this service:

- Mapping (always enabled)
- Schematics
- WCS
- WFS
- Network Analysis
- KML
- WMS
- Feature Access
- Mobile Data Access

Deselect →

→ **Select**

Service Editor

Connection: arcgisserver on esritst.minnkota.com (publisher) Service Name: Demo_Poles

General
Parameters
Capabilities
Mapping
Feature Access
Pooling
Processes
Caching
Item Description
Sharing

Feature Access

REST URL:

SOAP URL:

Operations allowed:

Create Delete Extract Query Sync Update

Properties

Allow geometry updates

Allow update of true curves

Apply default z-value

When inserting or updating features with no z-values, set z-value to:

Enable ownership-based access control on features

Operations allowed on features created by other users :

Query Update Delete

Advanced Options...

This is the most important

The Number of Features is Defaulted to 1000, You Can Increase This for Larger Datasets

The screenshot shows the 'Service Editor' window for a service named 'Demo_Poles'. The 'Parameters' tab is selected in the left-hand navigation pane. The main area displays several configuration sections:

- Document Location:** Original Document: Untitled
- Anti-Aliasing:** Anti-Aliasing: None; Text Anti-Aliasing: Force
- Properties:** Maximum number of records returned by the server: 5000. An 'Advanced...' button is located below this field.
- Cluster:** Choose the cluster hosting the service: default
- Output Directory:** Directory: C:\arcgisserver\directories\arcgisoutput

Fill in the Item Description (this is required) and Click Analyze to Check for Errors

Service Editor

Connection: arcgisserver on esritst.minnkota.com (publisher) Service Name: Demo_Labels Import Analyze Preview Publish

General
Parameters
Capabilities
Mapping
Feature Access
Pooling
Processes
Caching
Item Description
Sharing

Item Description

Summary:
Demo_Labels

Tags:
Demo Labels
Choose Your Tags...

Description:
Demo Labels for flight path

Access and Use Constraints:

Credits:

Update missing metadata in document based on item description

Prepare

0 Errors 1 Warning 1 Message Search Analyze Results

Severity	Status	Code	Description	Name	Type	Dat...
Medium	Unresolved	24041	Layer does not have a feature template set	tstgis.MPCGIS.De...	Layer	Lay...
Low	Unresolved	30003	Layer draws at all scale ranges	tstgis.MPCGIS.De...	Layer	Lay...

Status: Complete 2/2 Items Show only unresolved items

Publish the Service

Service Editor

Connection: arcgisserver on esristst.minnkota.com (publisher) Service Name: Demo_Labels

Import Analyze Preview Publish

General
Parameters
Capabilities
Mapping
Feature Access
Pooling
Processes
Caching
Item Description
Sharing

Item Description

Summary:
Demo_Labels

Tags:
Demo_Labels
Choose Your Tags...

Description:
Demo_Labels for flight path


Access and Use Constraints:

Credits:

Update missing metadata in document based on item description

Publishing May Take a While
Depending on Your Dataset Size


Publishing in progress ...



Processing data on server - please wait.

Cancel

Service Publishing Result



The service has been published successfully.

OK

Open Your Portal & Create a Map

The screenshot shows a web browser window displaying the ArcGIS Portal for Minnkota Power Cooperative, Inc. The browser's address bar shows the URL `https://esritst.minnkota.com/arcgisportal/home/`. The page has a navigation menu with links for Home, Gallery, Map, Scene, Groups, My Content, and My Organization. A search bar on the right contains the name "Peter".

The main content area features a banner with the Minnkota Power logo and the text "Minnkota Test Portal for ArcGIS". Below the banner is a section titled "Featured Maps and Apps" which displays four items: "345_labels", "aerial patrol", and two instances of "All_Properties4".

At the bottom of the page, there is a text box that reads: "This is the home page of your ArcGIS Organization. You can easily change this page with your own logos, background image and many other things. Additionally, you can populate this home page with a collection of featured items such as Web Maps and Web applications to highlight the most useful GIS resources in your organization."

Add Your Dataset to the Map

The screenshot displays the ArcGIS web map viewer interface. The browser address bar shows the URL: <https://esritst.minnkota.com/arcgisportal/home/webmap/viewer.html?useExisting=1>. The page title is "Portal for ArcGIS - My Map".

The interface includes a navigation bar with "Home" and "My Map" options, and a "New Map" button. Below this is a toolbar with "Details", "Add", and "Basemap" buttons. The "Add" button is highlighted, and its dropdown menu is open, showing options: "Search for Layers", "Add Layer from Web", "Add Layer from File", and "Add Map Notes".

On the left side, there is a "Guided tour started" section with two tour options: "Learn to make a map" and "Learn to style a map", each with a "START TOUR" button. Below these is a prompt: "Pick a tour to map viewer."

The main map area shows a map of the Great Plains region, including parts of Montana, North Dakota, South Dakota, Minnesota, and Wisconsin. Major cities like Billings, Bismarck, Pierre, Fargo, and Minneapolis are labeled. The map also shows geographical features like the Yellowstone and Missouri rivers, and the Badlands. A scale bar at the bottom left indicates 0, 50, and 100 miles. The Esri logo and "POWERED BY" text are visible in the bottom right corner.

Search For and Add Your Dataset

Search for your dataset

The screenshot shows the ArcGIS Portal interface. The search bar contains the text "demo". Below the search bar, there are four results found. The first two results are "Demo_Poles_1" and the last two are "Demo_Flight_Notes". The interface also shows a map with various layers and a scale bar.

You may need to deselect this

Add the MAP IMAGE LAYER

Add the Feature Layer' With the Domains That Were Created Earlier

DONE ADDING LAYERS

If We Zoom In We Can See the Labels

Portal for ArcGIS - My Map

Secure | <https://esritst.minnkota.com/arcgisportal/home/webmap/viewer.html?useExisting=1>

Home ▾ My Map New Map ▾

Details + Add ▾ Basemap Analysis Save Share Print Measure Bookmarks

Search for Layers

Find:

In: Portal for ArcGIS

Within map area

2 Results Found

- Demo_Labels by pmetzger@MPCI
- Demo_Labels by pmetzger@MPCI

DONE ADDING LAYERS

0 1 2mi

State of North Dakota, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

esri

Save the Map

Portal for ArcGIS - My Map x

Secure | <https://esritst.minnkota.com/arcgisportal/home/webmap/viewer.html?useExisting=1>

Apps | file:///Q:/047A%20ita | ArcGIS Server Manage | ArcGIS - Sign In | Simple Map | IIS website Explanation | Tutorials | ArcGIS API | ArcGIS API for JavaScr | ArcGIS Help 10.2 - We

Home ▾ My Map New Map

Details + Add ▾ Basemap Analysis Save ▾ Share Print ▾ Measure Bookmarks Find address or place 🔍

Search for Layers

Find:

In:

Within map area

2 Results Found

- Demo_Labels by pmetzger@MPCI
- Demo_Labels by pmetzger@MPCI

Map Labels:

- 013B0204
- 013B0203
- 013B0201
- 013B0200
- 013B0199
- 013B0197
- 013B0193
- 013B0190
- 013B0188
- 013B0186
- 013B0182
- 013B0180
- 013B0179
- 013B0177
- 013B0176
- 013B0174
- 013A0171
- 013A0170
- 013A0167
- 013A0163
- 013A0161
- 013A0159
- 013A0157
- 013A0156
- 013A0153
- 013A0151
- 013A0150
- 013A0147
- 013A0146
- 013A0145
- 013A0141
- 013A0138
- 013A0135
- 013A0134
- 013A0132
- 013B0205
- 013B0202
- 013B0198
- 013B0195
- 013B0192
- 013B0189
- 013B0187
- 013B0185
- 013B0181
- 013B0178
- 013B0175
- 013B0173
- 013A0169
- 013A0166
- 013A0165
- 013A0160
- 013A0158
- 013A0155
- 013A0154
- 013A0152
- 013A0149
- 013A0148
- 013A0144
- 013A0143
- 013A0140
- 013A0137
- 013A0136
- 013A0133
- 013A0131
- 002B0186
- 002B0183
- 002B0180
- 002B0178
- 002B0177
- 002B0173
- 002B0168
- 002B0167
- 002B0165
- 002B0163
- 002B0160
- 002B0159
- 002B0156
- 002B0151
- 002A01485
- 002A0144
- 002A0141
- 002A0138
- 002A0135
- 002A0134
- 002A0127
- 002A0124
- 002A0121
- 002A0118
- 002A0115
- 002A0111
- 002A0108
- 002A0104
- 002A0103
- 002A0099
- 002A0097
- 002B0185
- 002B0181
- 002B0179
- 002B0176
- 002B0175
- 002B0174
- 002B0170
- 002B0166
- 002B0164
- 002B0162
- 002B0161
- 002B0157
- 002B0158
- 002B0152
- 002B0153
- 002B0149
- 002A0146
- 002A0143
- 002A0140
- 002A0137
- 002A0133
- 002A0131
- 002A0128
- 002A0112
- 002A0109
- 002A0110
- 002A0105
- 002A0102
- 002A0101
- 002A0099
- 002A0097

Map Labels (Right):

- 002B0186
- 002B0183
- 002B0180
- 002B0178
- 002B0177
- 002B0173
- 002B0168
- 002B0167
- 002B0165
- 002B0163
- 002B0160
- 002B0159
- 002B0156
- 002B0151
- 002A01485
- 002A0144
- 002A0141
- 002A0138
- 002A0135
- 002A0134
- 002A0127
- 002A0124
- 002A0121
- 002A0118
- 002A0115
- 002A0111
- 002A0108
- 002A0104
- 002A0103
- 002A0099
- 002A0097

Map Labels (Bottom):

- State of North Dakota, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Save the Map

The screenshot shows the ArcGIS web interface. The browser address bar displays the URL: <https://esritst.minnkota.com/arcgisportal/home/webmap/viewer.html?webmap=95895df7363442dbba63f6841f89733b>. The page title is "Portal for ArcGIS - Demo_1". The main content area shows a map with numerous red circular markers, each labeled with a unique ID (e.g., 013B0268, 013B0269, 013B0267, 013B0266, 013B0265, 013B0264, 013B0263, 013B0262, 013B0261, 013B0260, 002B0247, 002B0246, 002B0245, 002B0244, 002B0243, 002B0242, 002B0241, 002B0240, 002B0239, 002B0238, 002B0237, 002B0236, 002B0235, 002B0234, 002B0233, 002B0232, 002B0231, 002B0230, 002B0229, 002B0228, 002B0227, 002B0226, 002B0225, 002B0224, 002B0223, 002B0222, 002B0221, 002B0220, 002B0219, 002B0218, 002B0217, 002B0216, 002B0215). The map also shows street names like "66th St NE", "156th Ave NE", "157th Ave", "158th Ave", and "62nd St".

A "Save Map" dialog box is open in the center of the screen. It contains the following fields and options:

- Title:** Demo_Labels_1
- Tags:** demo labels (with an "Add tag(s)" button)
- Summary:** demo labels 1
- Save in folder:** pmetzger@MPCI

At the bottom of the dialog box are two buttons: "SAVE MAP" and "CANCEL".

At the bottom of the map interface, there is a scale bar (0 to 1 mile) and a "DONE ADDING LAYERS" button. The footer text reads: "State of North Dakota, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA...".

Share the Map

Portal for ArcGIS - My Map

Secure | <https://esristst.minnkota.com/arcgisportal/home/webmap/viewer.html?useExisting=1>

Home ▾ My Map New Map ▾

Details + Add ▾ Basemap Analysis Save ▾ Share Print ▾ Measure Bookmarks Find address or place 🔍

Search for Layers

Find:

In: Portal for ArcGIS

Within map area

2 Results Found

- Demo_Labels by pmetzger@MPCI
- Demo_Labels by pmetzger@MPCI

DONE ADDING LAYERS

Map showing parcel labels (e.g., 013B0204, 013B0203, 013B0201, 013B0200, 013B0199, 013B0197, 013B0193, 013B0190, 013B0189, 013B0188, 013B0186, 013B0182, 013B0180, 013B0179, 013B0177, 013B0176, 013B0174, 013A0171, 013A0170, 013A0167, 013A0166, 013A0163, 013A0161, 013A0159, 013A0157, 013A0156, 013A0153, 013A0151, 013A0150, 013A0147, 013A0146, 013A0145, 013A0141, 013A0138, 013A0135, 013A0134, 013A0132) and county names (WATSON GRANITE, MARSHALL POLK). A red arrow points to the 'Share' button in the top toolbar.

0 1 2mi

State of North Dakota, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

POWERED BY esri

Share the Map

Portal for ArcGIS - Demo

Secure | <https://esritst.minnkota.com/arcgisportal/home/webmap/viewer.html?webmap=95895df7363442dbba63f6841f89733b>

Apps | file:///Q:/047A%20Itas | ArcGIS Server Manage | ArcGIS - Sign In | Simple Map | IIS website Explanation | Tutorials | ArcGIS API | ArcGIS API for JavaScript

Home ▾ Demo Labels 1 ▾ New Map ▾ Create Presentation ▾

Details Add

Search for Layers

Find: demo

In: Portal for ArcGIS

Within map area

4 Results Found

Demo_Poles_1
by pmetzger@MPCI

Demo_Poles_1
by pmetzger@MPCI

Demo_Flight_Notes
by pmetzger@MPCI

Demo_Flight_Notes
by pmetzger@MPCI

Share

Choose who can view this map.

Your map is currently shared with these people.

Everyone

Minnkota Test Portal for ArcGIS

Members of these groups:

- basemap
- Collector Maps
- Featured Maps and Apps
- Vegetation Management

Link to this map

<https://esritst.minnkota.com/arcgisportal/home/webmap/viewer.html?webmap=95895df7363442dbba63f6841f89733b&extent=-97.3024,48.3046,-97.1447,48.3745>

Share current map extent

Embed this map

EMBED IN WEBSITE CREATE A WEB APP

DONE

013B0232

State of North Dakota, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA... esri

Share the Map

- It will Prompt you to update sharing for the image layer.

The screenshot shows a web browser window displaying an ArcGIS web map. The browser address bar shows the URL: <https://esristst.minnkota.com/arcgisportal/home/webmap/viewer.html?webmap=95895df7363442dbba63f6841f89733b>. The page title is "Portal for ArcGIS - Demo".

The main interface shows a "Share" dialog box with the following content:

- Share**
- Choose who can view this map.
- Your map is currently shared with these people.
- Everyone
- Minnkota Test Portal for ArcGIS
- Members of these groups:

 - basemap
 - Collector Maps
 - Featured Maps and Apps
 - Vegetation Management

- Link to this map: <https://esristst.minnkota.com/arcgisportal/home/webmap/viewer.html?webmap=95895df7363442dbba63f6841f89733b>
- Share current map extent
- Embed this map: [EMBED IN WEBSITE](#)

An "Update Sharing" modal window is overlaid on the "Share" dialog, with the following content:

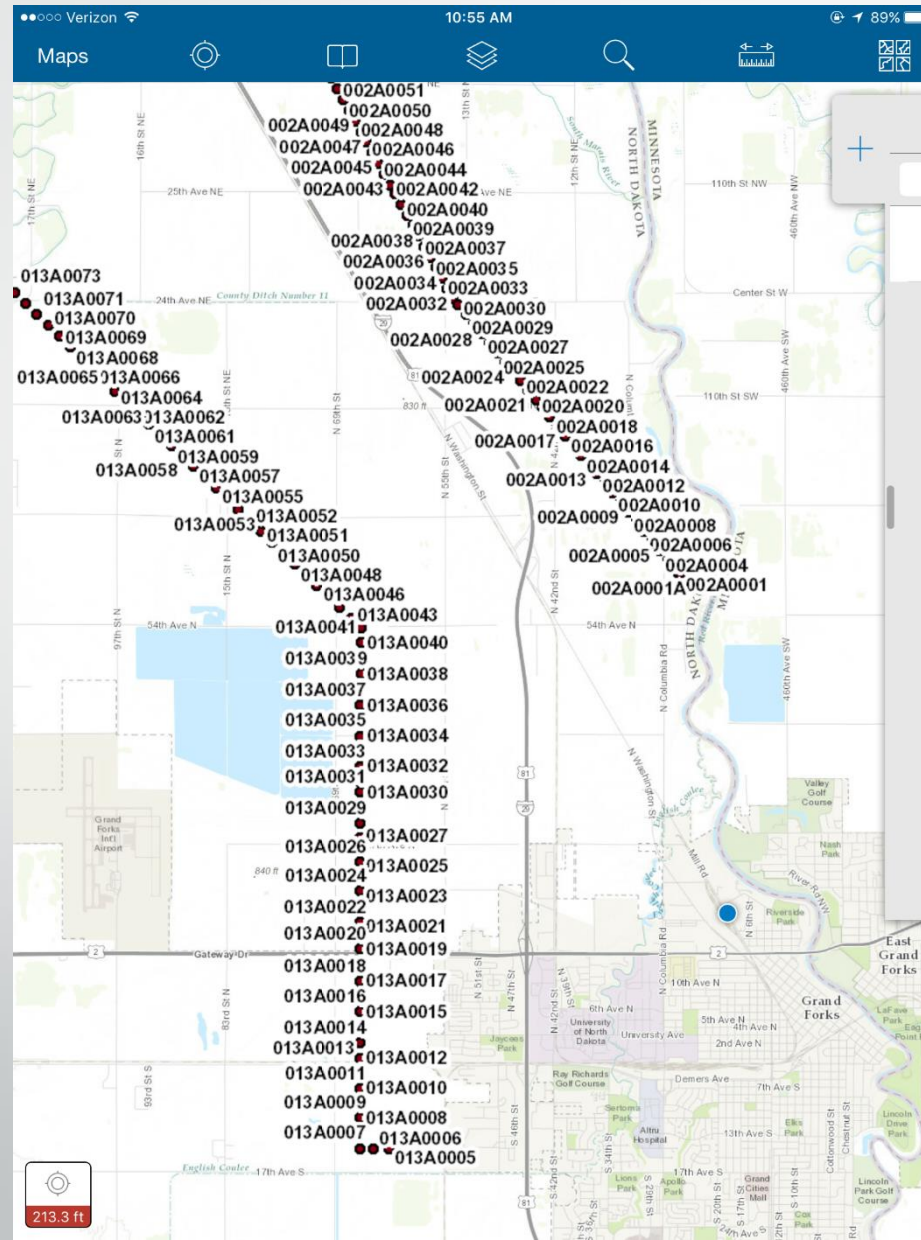
- Update Sharing**
- These layers in the web map may not be visible to others because they are not shared in the same way as the web map.

Layer	Owner
Demo_Flight_Notes	pmetzger@MPCI

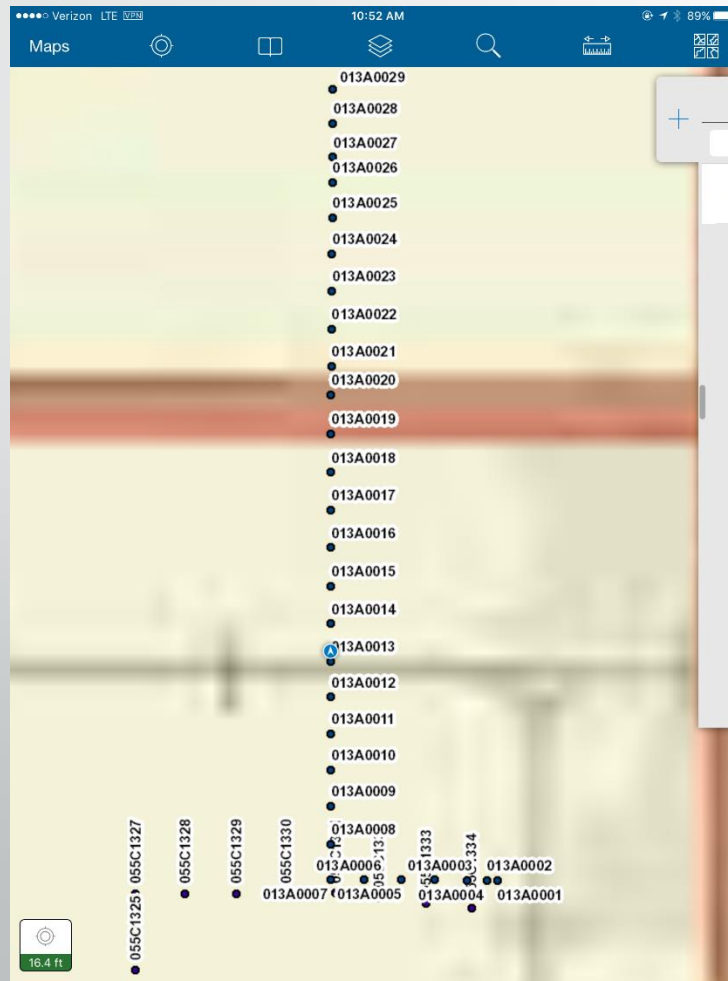
- Click Update Sharing to adjust the settings of the layers you own so they can be viewed in the web map.
- Buttons: **UPDATE SHARING** and **CANCEL**

The background map shows a street view of a residential area with a list of parcel IDs on the right side, including 013B0232, 013B0231, 013B0230, 013B0229, 013B0228, 013B0227, 013B0226, 013B0225, 013B0224, 013B0223, 013B0222, 013B0221, 013B0220, 013B0219, 013B0218, and 013B0217. The Esri logo is visible in the bottom right corner.

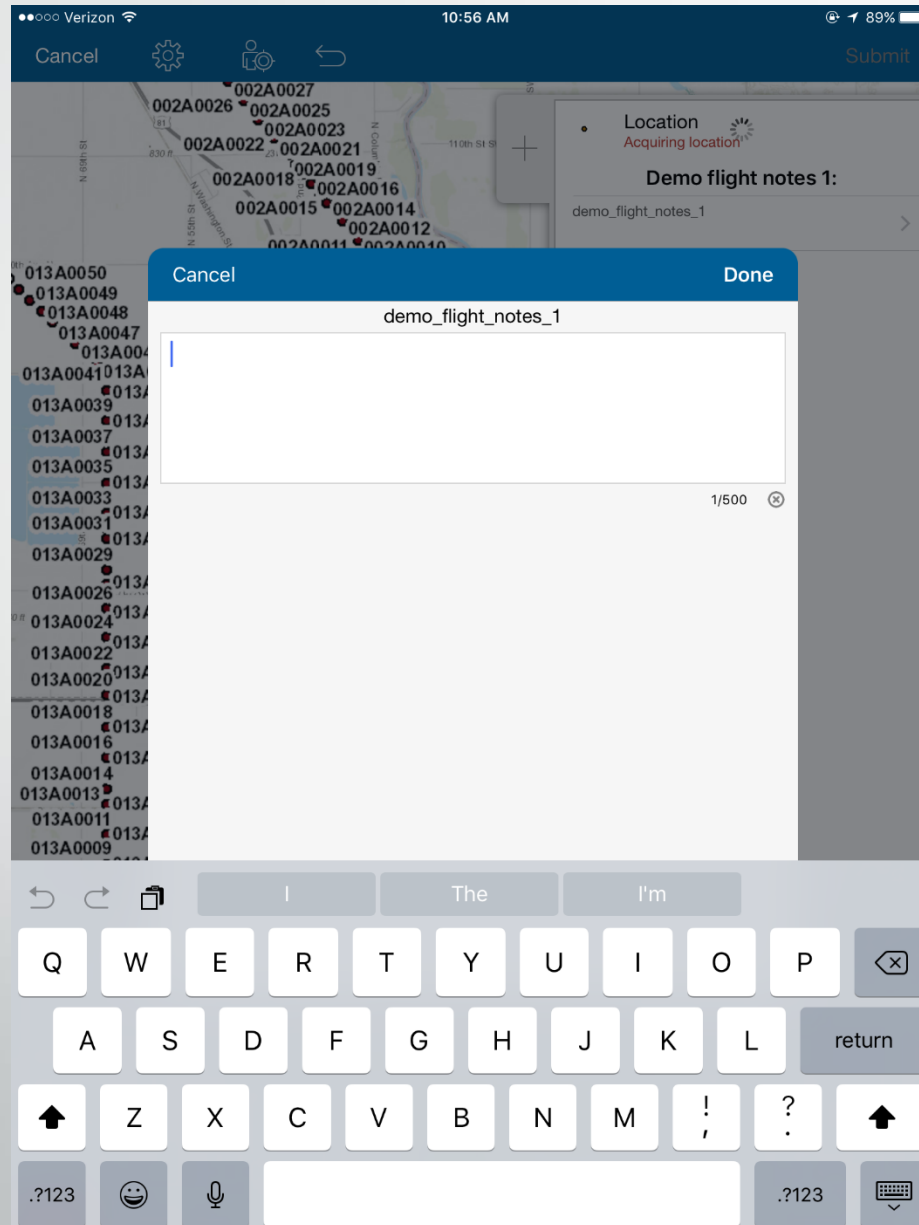
Voila! We Have the Labels Visible!



Us Flying Along the High Voltage Line The GPS Symbol Tracks Us As We Fly Notes Can Be Added Based on the GPS Location

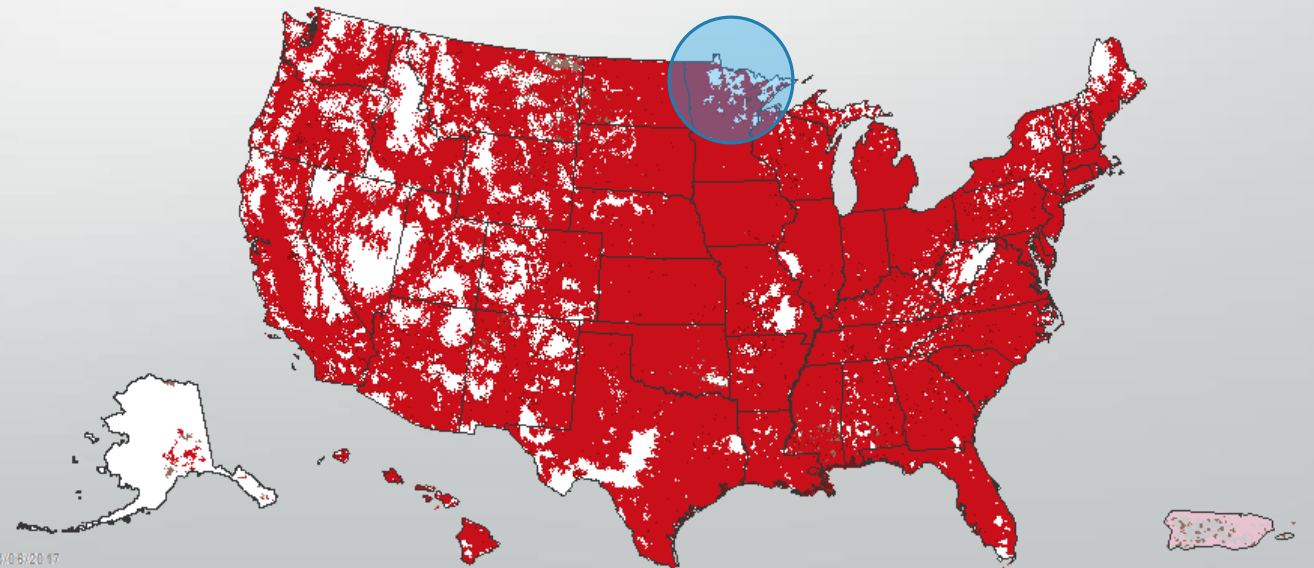


We Can Also Add Notes Based on Our GPS Location



Offline Mode

- Pros
 - Can cache data locally onto an iPad using Wi-Fi, that way no mobile data is used
 - Can operate in areas where service is not provided
- Cons
 - A bit difficult to set up
 - Does not display labels but when a feature is clicked on it will display a popup.



First We'll Load Our Data Into Our Geodatabase

Untitled - ArcMap

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

Drawing Arial 10 B I U A 1 inch = 10.72 miles Labeling Fast Snapping Georeferencing

Table Of Contents

Layers

- tsstgis.MPCGIS.Demo_Poles

Catalog

Location: MPC DATA OWNER TO TEST.sde

- Q:\047A Itasca to MPL Laporte
- Q:\047A Itasca to MPL Laporte\Right of Way
- Q:\047A Itasca to MPL Laporte\Right of Way
- Toolboxes
- My Toolboxes
- System Toolboxes
- Database Servers
- Add Database Server
- Database Connections
- Add Database Connection
- Connection to ebsdev.sde
- Connection to ebsprd.sde
- MPC DATA OWNER TO PROD.sde

Copy

Paste

Delete

Rename

Refresh

Make Default Geodatabase

New

Import

Export

Administration

Distributed Geodatabase

Connect

Disconnect

Connection Properties...

Geodatabase Connection Properties...

Share as Geodata Service...

Item Description...

Domain Manager

Find Associated Documents and Datasets...

Properties...

This will run
Feature class
To feature class

Feature Class (single)...

Feature Class (multiple)...

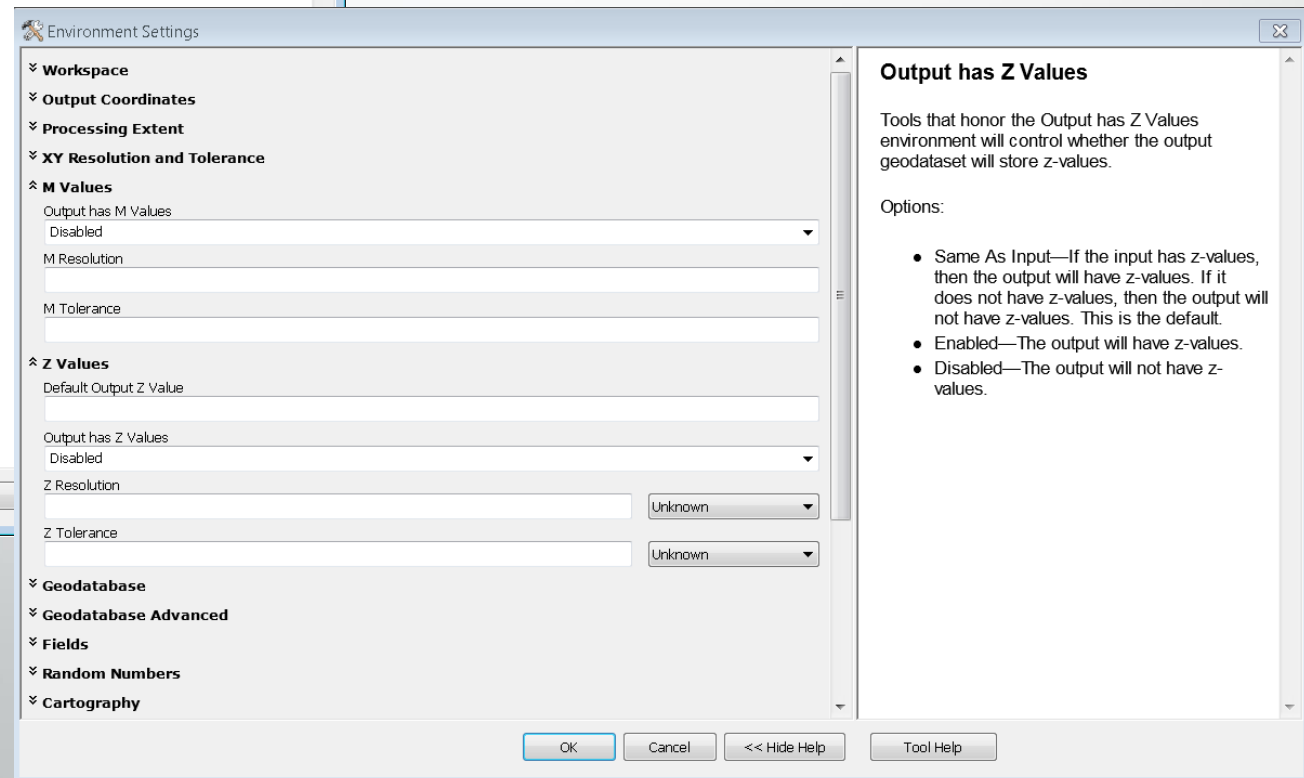
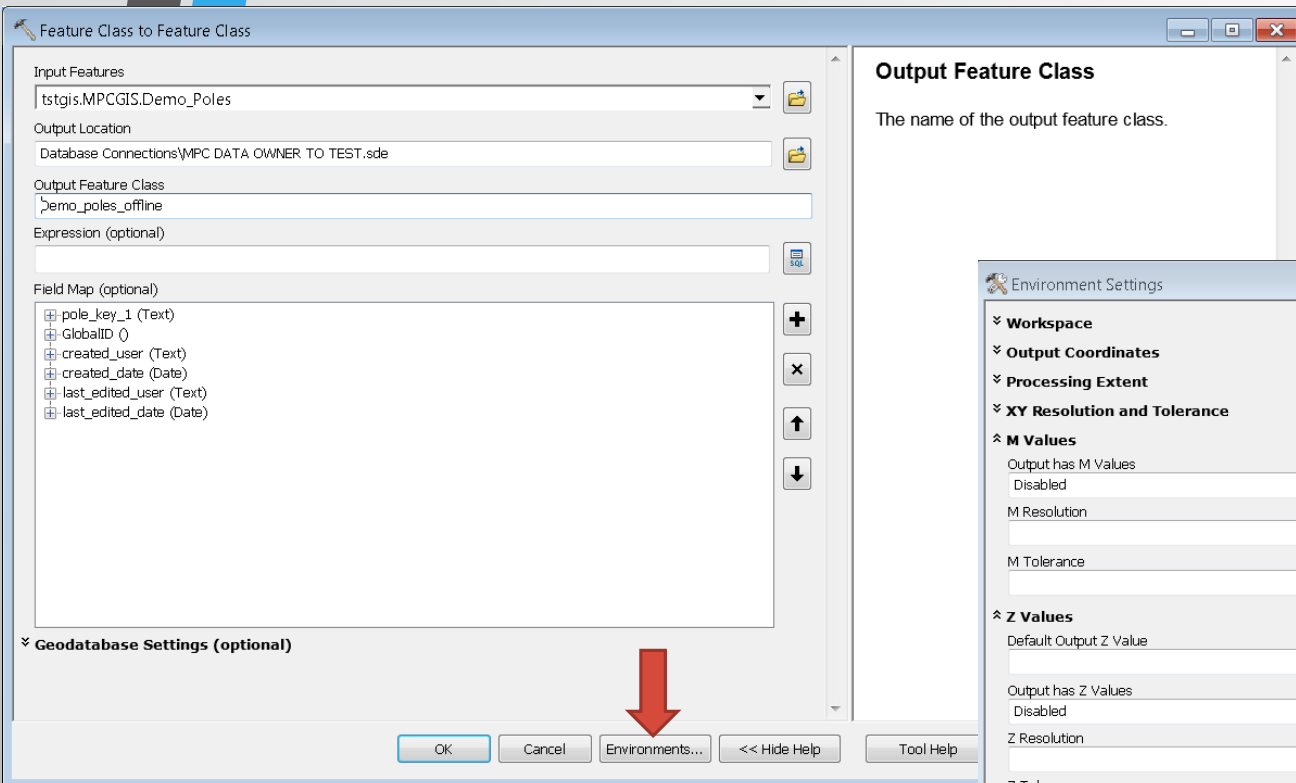
Table (single)...

Table (multiple)...

Raster Datasets...

XML Workspace Document...

Add the Desired Output Feature Class And Click Environments



Add Global ID's and Add Privileges

Add Global IDs

Add a global ID column which stores a unique GUID value for each row required for replication. This command is disabled if the item is not a feature class or table.

Requires a Standard or an Advanced license and is disabled with a Basic license.

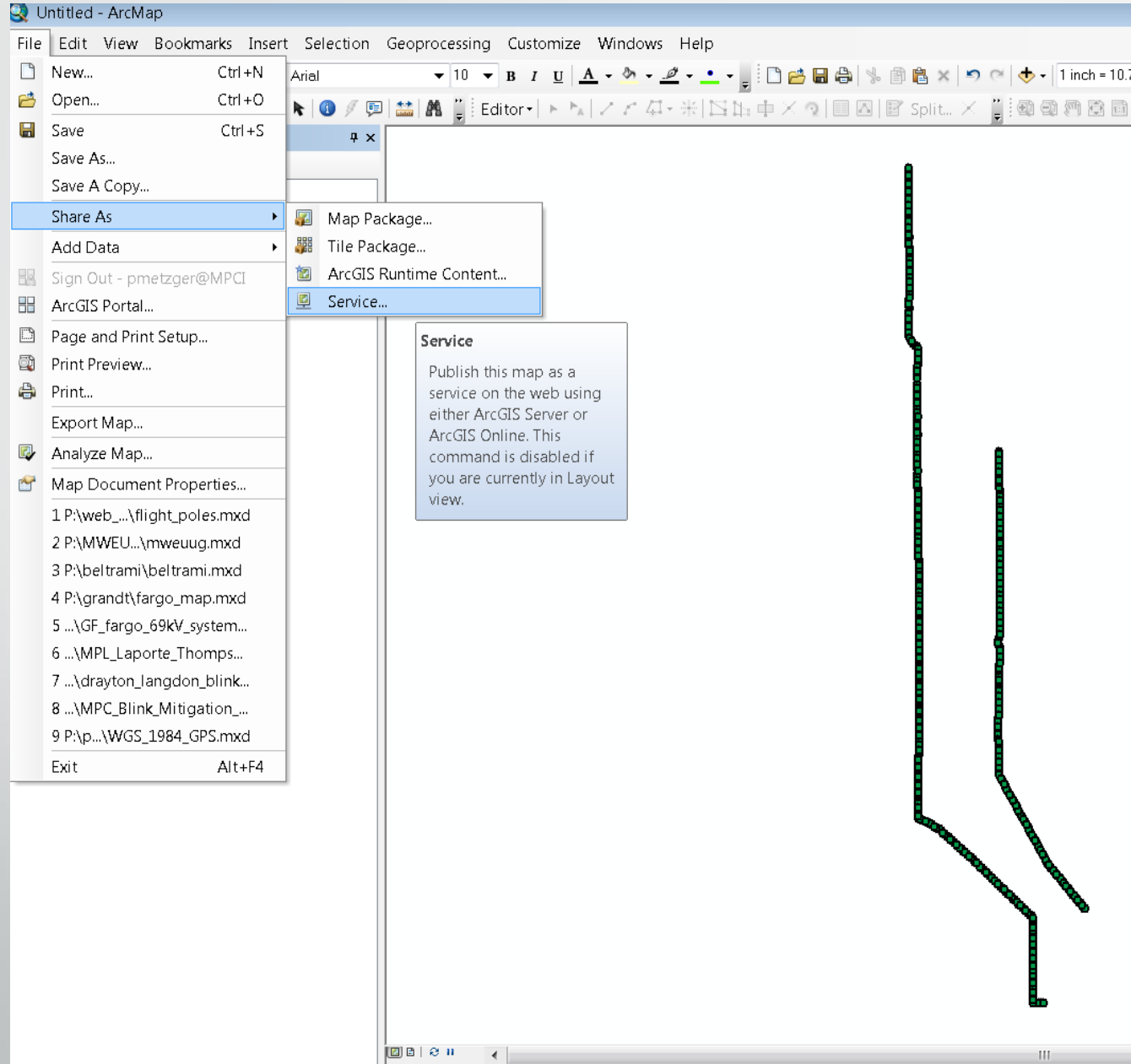
Privileges

Grant or revoke privileges on the selected dataset.

Only the data owner can alter privileges.

User/Role	Select	Insert	Update	Delete
sde	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MPCNG_A_GISEditors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Share as a Map Service



Share As a Map Service

Service Editor

Connection: arcgisserver on esristst.minnkota.com (publisher) Service Name: Demo_pole...


Import Analyze Preview Publish

General
Parameters
Capabilities
Mapping
Feature Access
Pooling
Processes
Caching
Item Description
Sharing

Capabilities

Choose the capabilities you would like enabled for this service:

- Mapping (always enabled)
- Schematics
- WCS
- WFS
- Network Analysis
- KML
- WMS
- Feature Access
- Mobile Data Access



Service Editor

Connection: arcgisserver on esristst.minnkota.com (publisher) Service Name: Demo_pole...

Import Analyze

General
Parameters
Capabilities
Mapping
Feature Access
Pooling
Processes
Caching
Item Description
Sharing

Feature Access

REST URL: https://esristst.minnkota.com/arcgisserver/rest/services/Demo_poles_offline/FeatureServer

SOAP URL: https://esristst.minnkota.com/arcgisserver/services/Demo_poles_offline/MapServer


Operations allowed:

- Create
- Delete
- Extract
- Query
- Sync
- Update

Properties

- Allow geometry updates
 - Allow update of true curves
- Apply default z-value
 - When inserting or updating features with no z-values, set z-value to:
- Enable ownership-based access control on features
 - Operations allowed on features created by other users:
 - Query
 - Update
 - Delete

Advanced Options...



Service Editor

Connection: arcgisserver on esristst.minnkota.com (publisher) Service Name: Demo_pole...

Import Analyze Preview Publish

General
Parameters
Capabilities
Mapping
Feature Access
Pooling
Processes
Caching
Item Description
Sharing

Item Description

Summary:

Demo_Poles_offline

Tags:

demo

Choose Your Tags...


Description:

demo poles offline

Access and Use Constraints:

Credits:

Update missing metadata in document based on item description



Create A New Empty Map and Add Our Dataset

The screenshot shows the ArcGIS web map viewer interface. The browser address bar displays the URL: <https://esritst.minnkota.com/arcgisportal/home/webmap/viewer.html>. The page title is "Portal for ArcGIS - My Map". The interface includes a search bar with the text "Find address or place" and a search icon. Below the search bar, there are navigation and utility icons: Details, Add, Basemap, Save, Share, Print, Measure, and Bookmarks. The main map area shows a satellite-style map of the central United States, including parts of Montana, North Dakota, South Dakota, Minnesota, and Wisconsin. Major cities like Billings, Bismarck, Fargo, Minneapolis, and St. Paul are visible. The map also shows geographical features like the Missouri River, Yellowstone River, and the Badlands. A scale bar at the bottom indicates 0, 50, and 100 miles. The Esri logo is in the bottom right corner.

On the left side, there is a "Search for Layers" panel. It contains a search input field with the text "Demo", a "GO" button, and a dropdown menu set to "Portal for ArcGIS". Below this, it says "8 Results Found". The results list includes several layers, each with an "Add" button. The last two layers, "Demo_Poles_offline" by pmetzger@MPCI, are highlighted in blue. Two red arrows point from these highlighted layers to the map area. The first arrow points to the text "Add the Editable Feature Layer" and the second arrow points to the text "Add the FEATURE LAYER we created".

At the bottom of the search panel, there is a blue button that says "DONE ADDING LAYERS".

Save the Map

The screenshot shows the ArcGIS web map viewer interface. The browser address bar displays the URL: <https://esritst.minnkota.com/arcgisportal/home/webmap/viewer.html>. The page title is "Portal for ArcGIS - My Map". The main navigation bar includes "Home", "My Map", and "New Map". The top toolbar contains icons for "Details", "Add", "Edit", "Basemap", "Analysis", "Save", "Share", "Measure", and "Bookmarks". A search bar is located on the right side of the toolbar.

The left sidebar is titled "Search for Layers" and contains a search input field with the text "Demo" and a "GO" button. Below the search field, there is a dropdown menu for "In: Portal for ArcGIS" and a checkbox for "Within map area". The search results section shows "8 Results Found" and lists several layers with "Add" and "Remove" buttons. The layers listed are:

- Demo_Flight_Notes by pmetzger@MPCI (Add)
- Demo_Poles_1 by pmetzger@MPCI (Add)
- Demo_Poles_1 by pmetzger@MPCI (Add)
- Demo_Flight_Notes by pmetzger@MPCI (Add)
- demo_flight_notes_1 by pmetzger@MPCI (Add)
- demo_flight_notes_1 by pmetzger@MPCI (Add)
- demo_flight_notes_1 by pmetzger@MPCI (Remove)
- Demo_Poles_offline by pmetzger@MPCI (Add)
- Demo_Poles_offline by pmetzger@MPCI (Remove)

The main map area shows a satellite view of the Great Plains region, including parts of South Dakota, North Dakota, Minnesota, and Wisconsin. A scale bar at the bottom indicates 0, 50, and 100 miles. The Esri logo is visible in the bottom right corner.

A "Save Map" dialog box is open in the center of the screen. The dialog box has a title bar with a close button (X). The fields are filled with the following information:

- Title: Demo_Poles_Offline
- Tags: Demo (with a close button X) and Add tag(s)
- Summary: Demo Poles Offline
- Save in folder: pmetzger@MPCI (dropdown menu)

At the bottom of the dialog box, there are two buttons: "SAVE MAP" and "CANCEL".

Share the Map And You Will Be Prompted To Update Sharing

The screenshot shows a web browser window displaying an ArcGIS web map viewer. The browser address bar shows the URL: <https://esritst.minnkota.com/arcgisportal/home/webmap/viewer.html?webmap=c6fb3a4628a840fdb894b0d03aa2ee86>. The page title is "Portal for ArcGIS - Demo".

The main content area shows a "Share" dialog box with the following options:

- Choose who can view this map.
- Your map is currently shared with these people.
- Everyone
- Minnkota Test Portal for ArcGIS
- Members of these groups:
- basemap
- Collector Maps
- Featured Maps and Apps
- Vegetation Management

Below the sharing options, there is a "Link to this map" section with a URL: <https://esritst.minnkota.com/arcgisportal/home/webmap/viewer.html?webmap=c6fb3a4628a840fdb894b0d03aa2ee86&layers=1957,-90.3926,51.3715>. There is also a checkbox for "Share current map extent" which is checked.

At the bottom of the "Share" dialog, there is an "Embed this map" section with an "EMBED IN WEBSITE" button.

An "Update Sharing" modal window is overlaid on the "Share" dialog. It contains the following text:

These layers in the web map may not be visible to others because they are not shared in the same way as the web map.

Layer	Owner
Demo_Poles_offline	pmetzger@MPCI

Click Update Sharing to adjust the settings of the layers you own so they can be viewed in the web map.

Buttons: UPDATE SHARING, CANCEL

The background map shows a satellite view of a region with labels for "Quetico Provincial Park", "Superior National Forest", "Lake Superior", and "Wisconsin".