



Práctica 02

CLASE SIG

M.C. ALBA LUCINA MARTÍNEZ HAROS

Guardar el Proyecto

DOCUMENTOS/

2019-01 SIG/

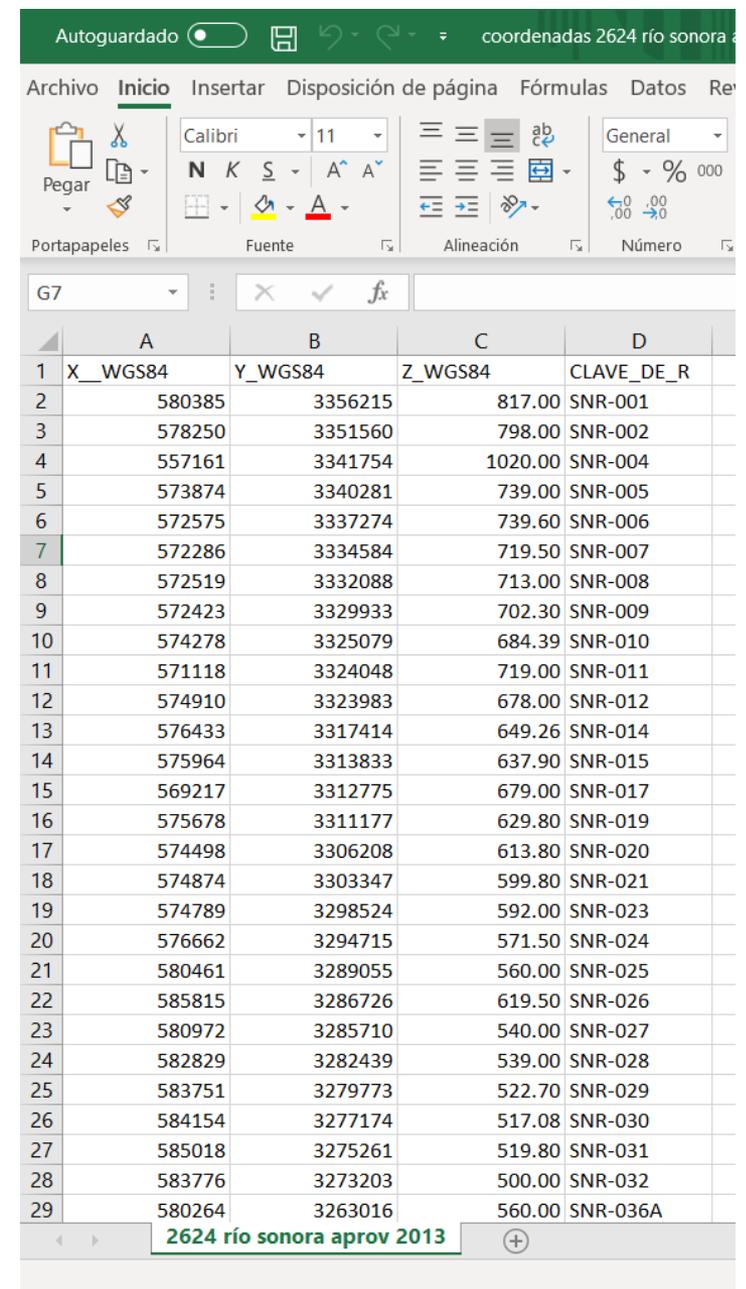
2019-01 SIG P02 ALMH*

* INCIALES

PROPIAS

Desplegar una tabla en Global Mapper

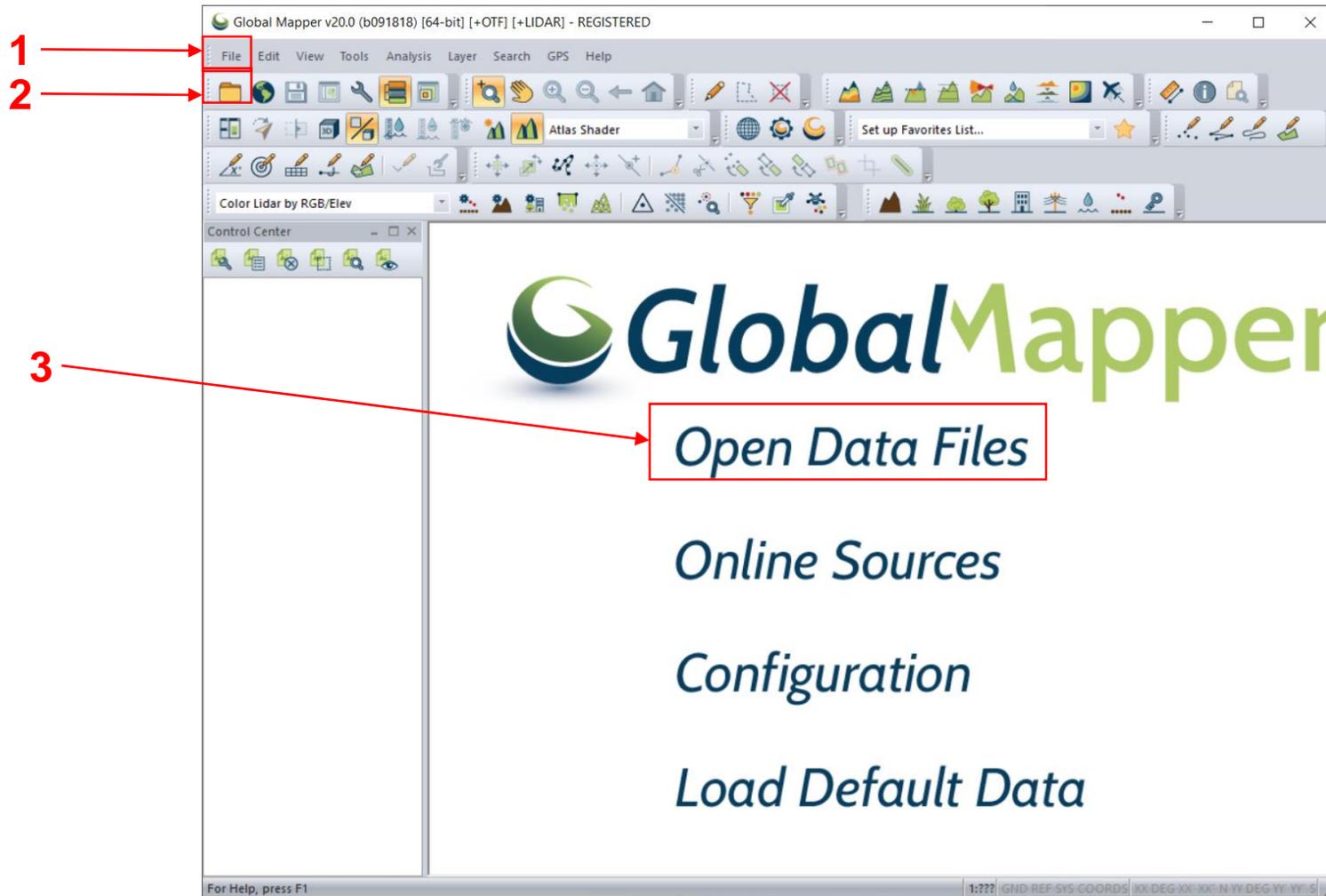
- Al trabajar con Global Mapper es importante revisar que la distribución de las columnas de las coordenadas mantengan el siguiente orden: X, Y, Z, ..., N
- Por lo cual es importante que se revise las tablas antes de empezar cualquier importación.
- Es importante cambiar la extensión el formato de la tabla a CSV ó TXT.



The screenshot shows the Microsoft Excel interface with a table of data. The table has four columns: X_WGS84, Y_WGS84, Z_WGS84, and CLAVE_DE_R. The rows contain numerical values for the first three columns and alphanumeric codes for the fourth column. The title bar indicates the file is named '2624 río sonora aprob 2013'.

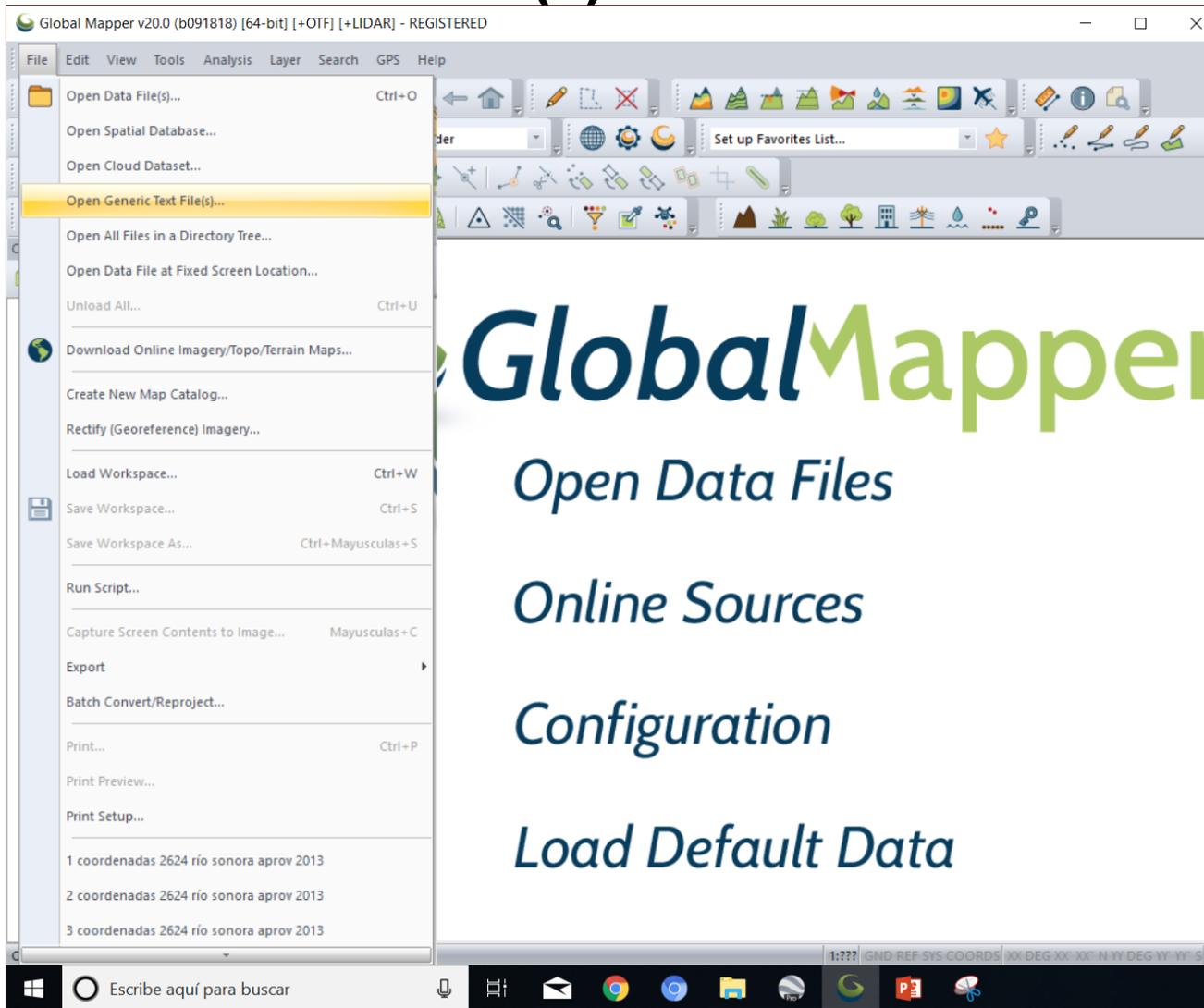
	A	B	C	D
1	X_WGS84	Y_WGS84	Z_WGS84	CLAVE_DE_R
2	580385	3356215	817.00	SNR-001
3	578250	3351560	798.00	SNR-002
4	557161	3341754	1020.00	SNR-004
5	573874	3340281	739.00	SNR-005
6	572575	3337274	739.60	SNR-006
7	572286	3334584	719.50	SNR-007
8	572519	3332088	713.00	SNR-008
9	572423	3329933	702.30	SNR-009
10	574278	3325079	684.39	SNR-010
11	571118	3324048	719.00	SNR-011
12	574910	3323983	678.00	SNR-012
13	576433	3317414	649.26	SNR-014
14	575964	3313833	637.90	SNR-015
15	569217	3312775	679.00	SNR-017
16	575678	3311177	629.80	SNR-019
17	574498	3306208	613.80	SNR-020
18	574874	3303347	599.80	SNR-021
19	574789	3298524	592.00	SNR-023
20	576662	3294715	571.50	SNR-024
21	580461	3289055	560.00	SNR-025
22	585815	3286726	619.50	SNR-026
23	580972	3285710	540.00	SNR-027
24	582829	3282439	539.00	SNR-028
25	583751	3279773	522.70	SNR-029
26	584154	3277174	517.08	SNR-030
27	585018	3275261	519.80	SNR-031
28	583776	3273203	500.00	SNR-032
29	580264	3263016	560.00	SNR-036A

Para abrir las tablas se pueden usar las siguientes vías



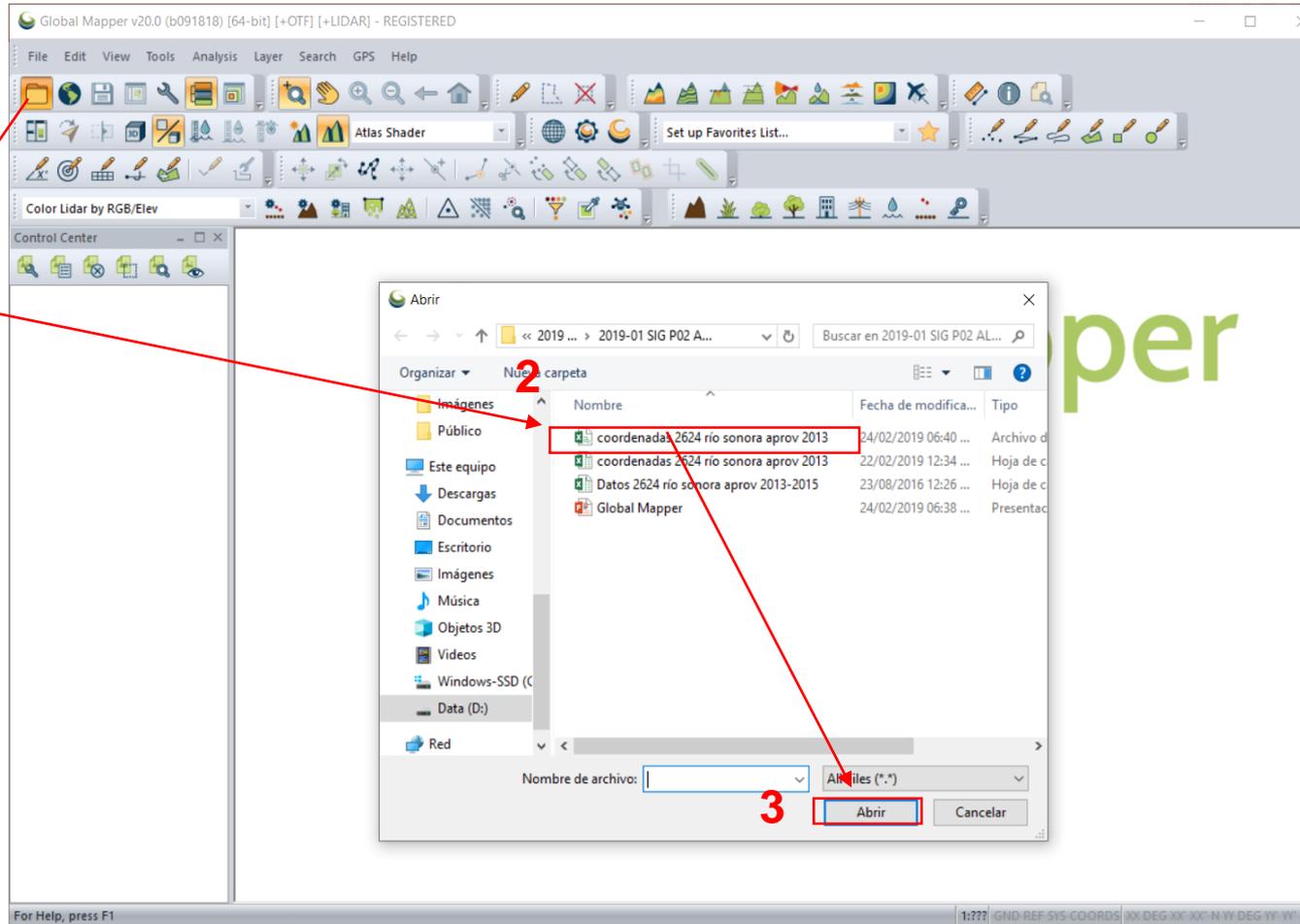
File

Open Generic Text File(s)

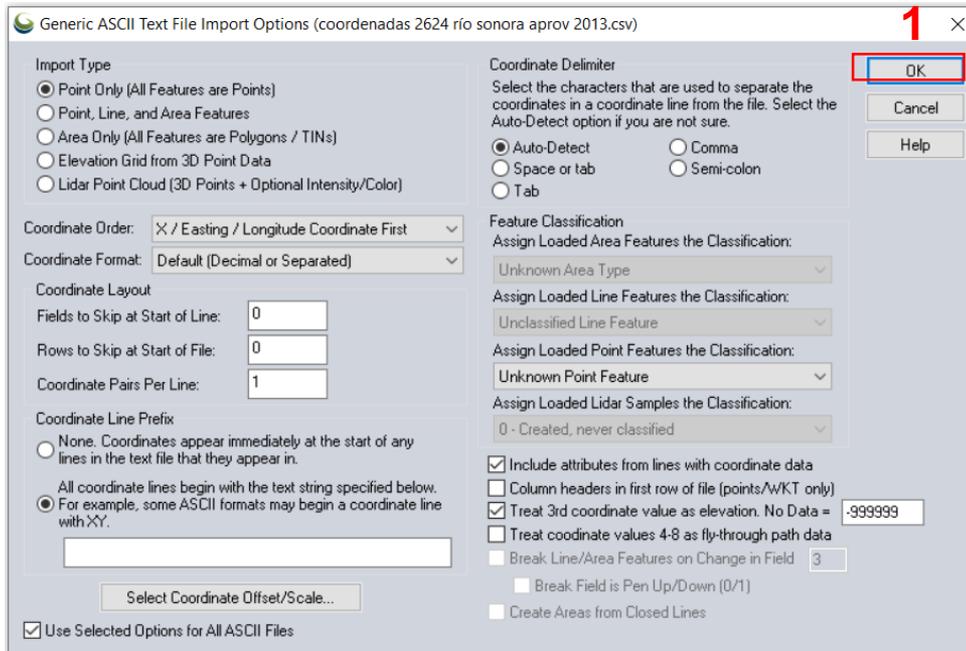


En el icono de la carpeta debemos de irnos a buscar los archivos en donde se indica la práctica 02 y seleccionar el archivo donde se encuentran las coordenadas (csv o txt)

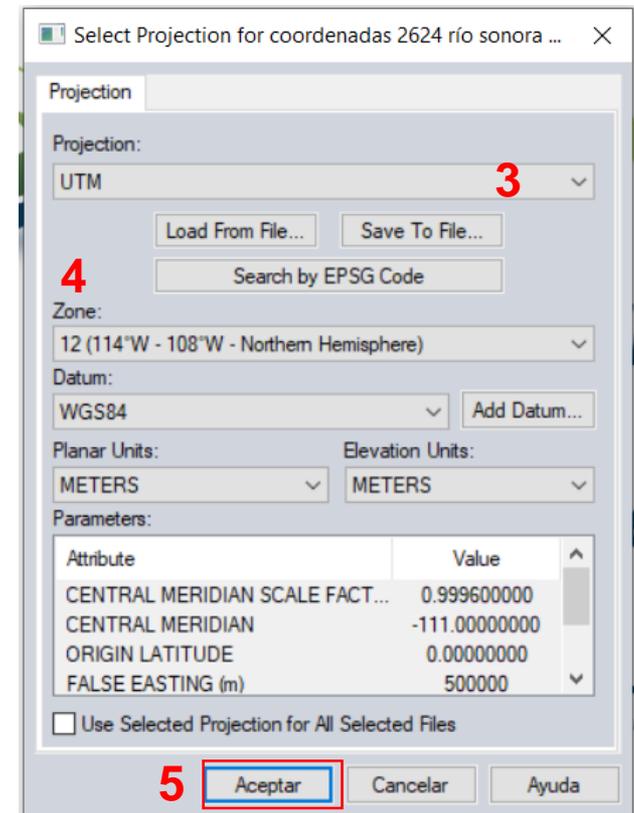
1



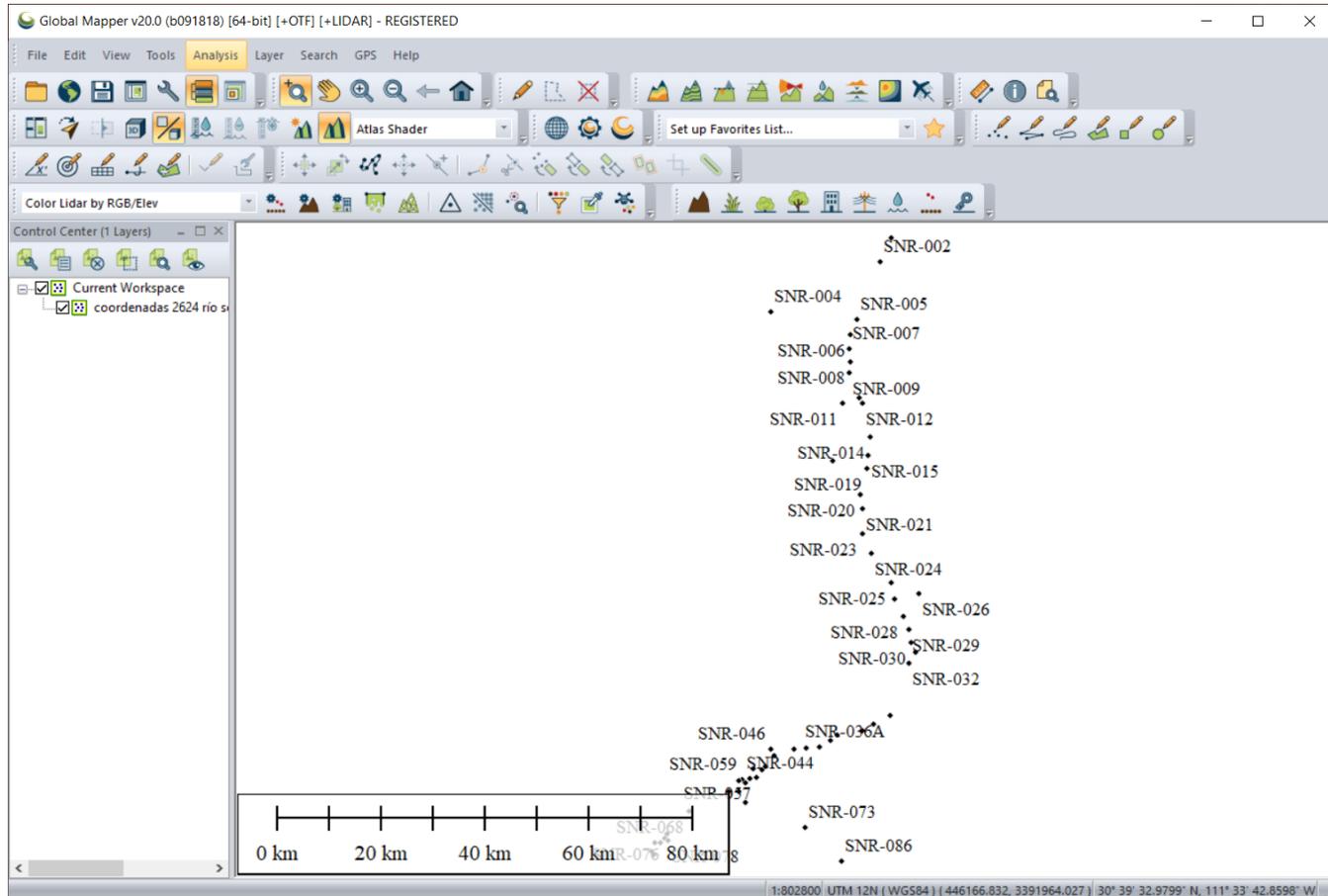
Como se trata de un caso de puntos se selecciona la primera opción y el resto por default



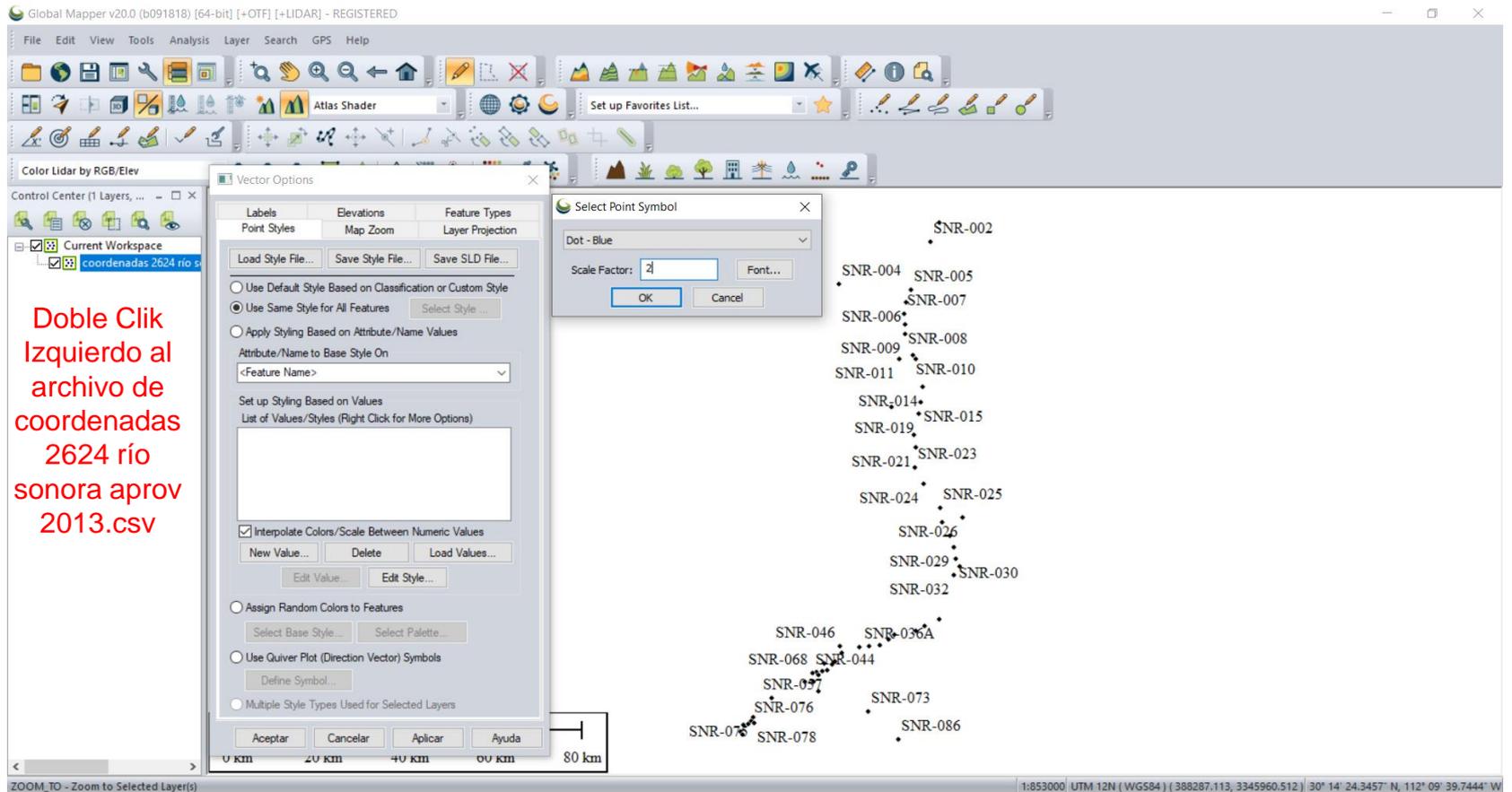
Buscar:
Proyección y zona adecuada
para nuestro proyecto, y
aceptar



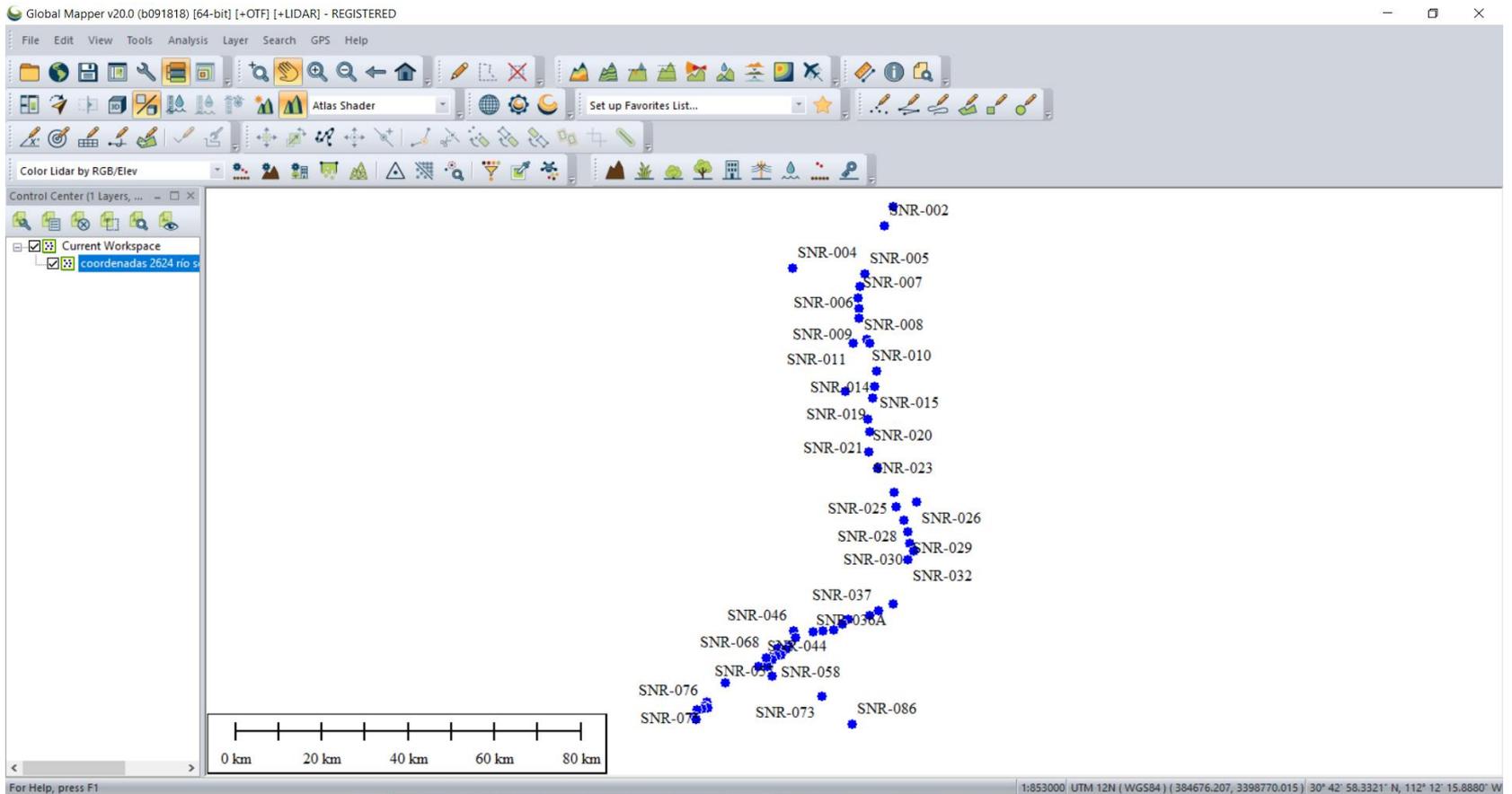
La información desplegada deberá de verse de esta manera



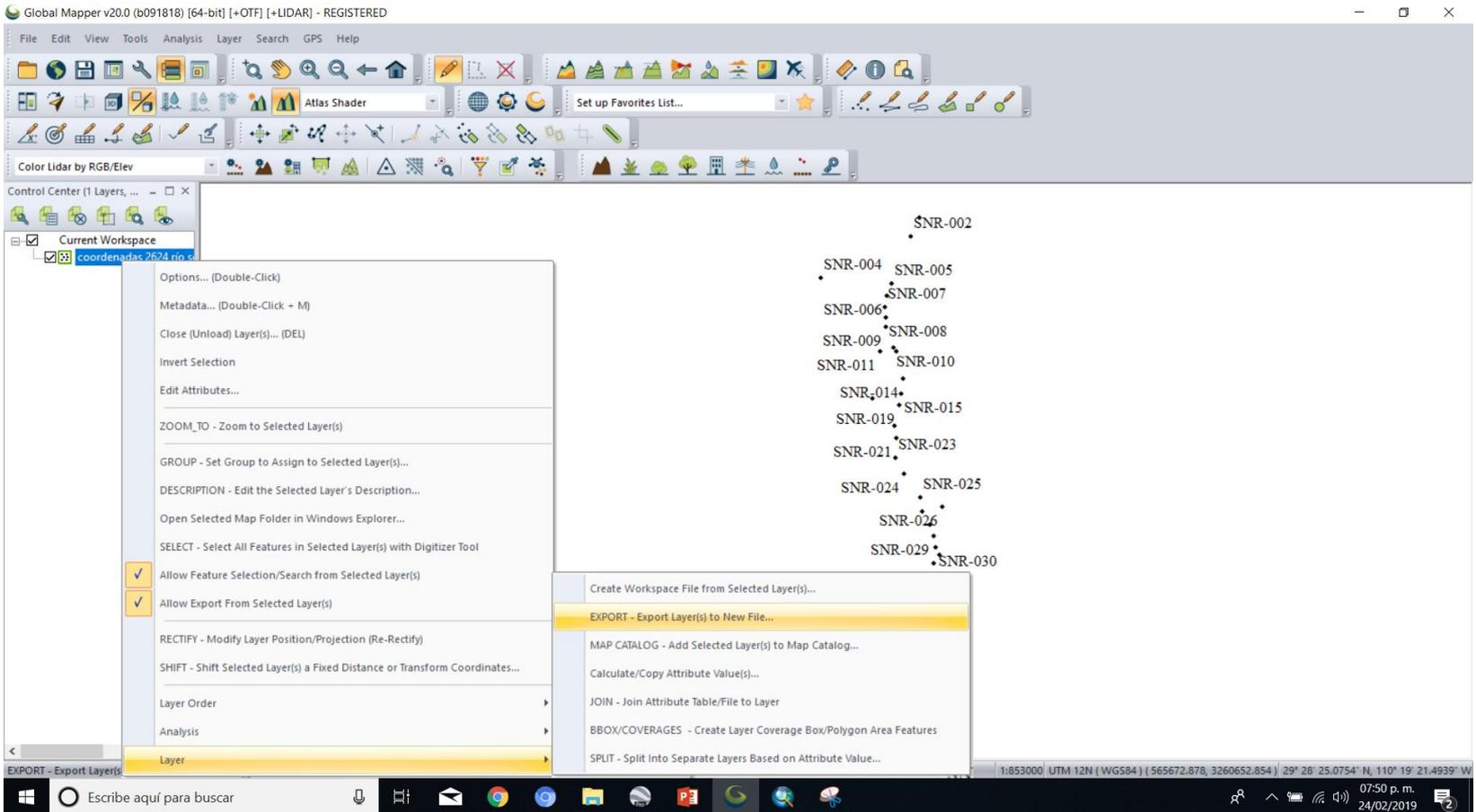
Editar los puntos de la tabla importados



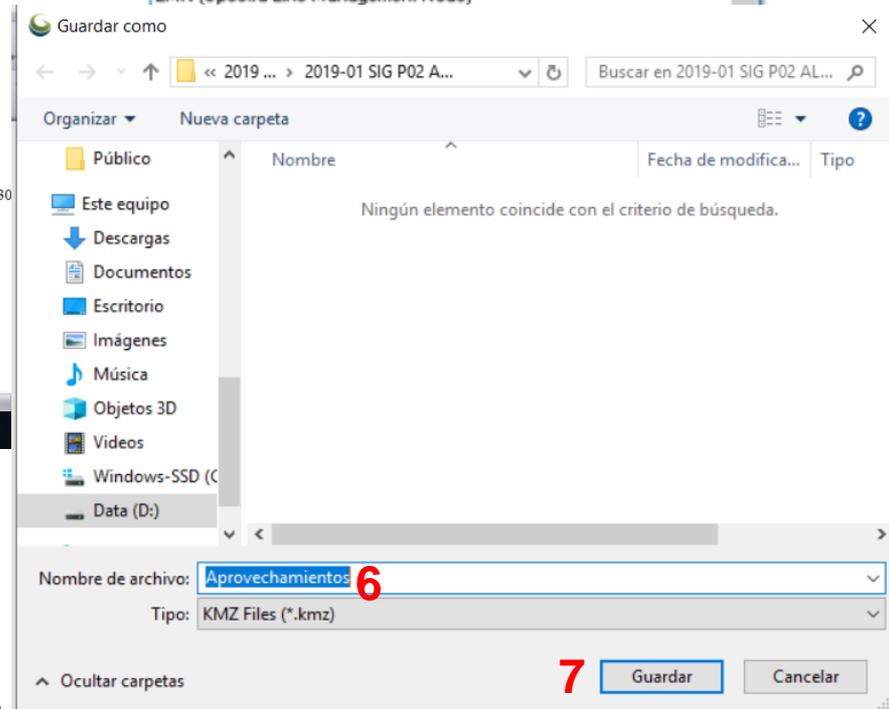
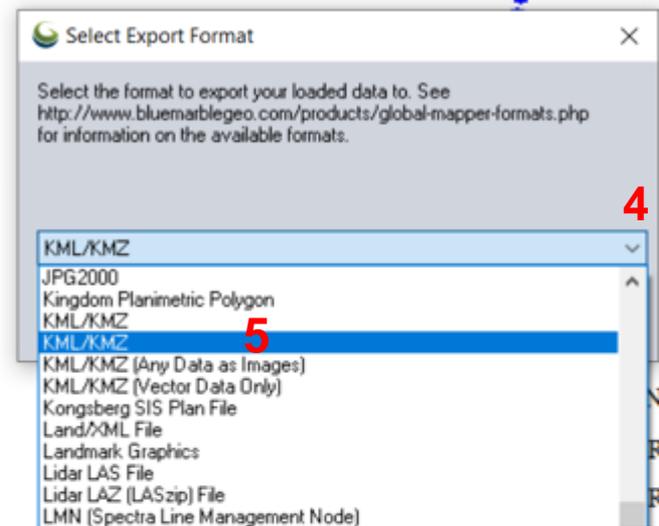
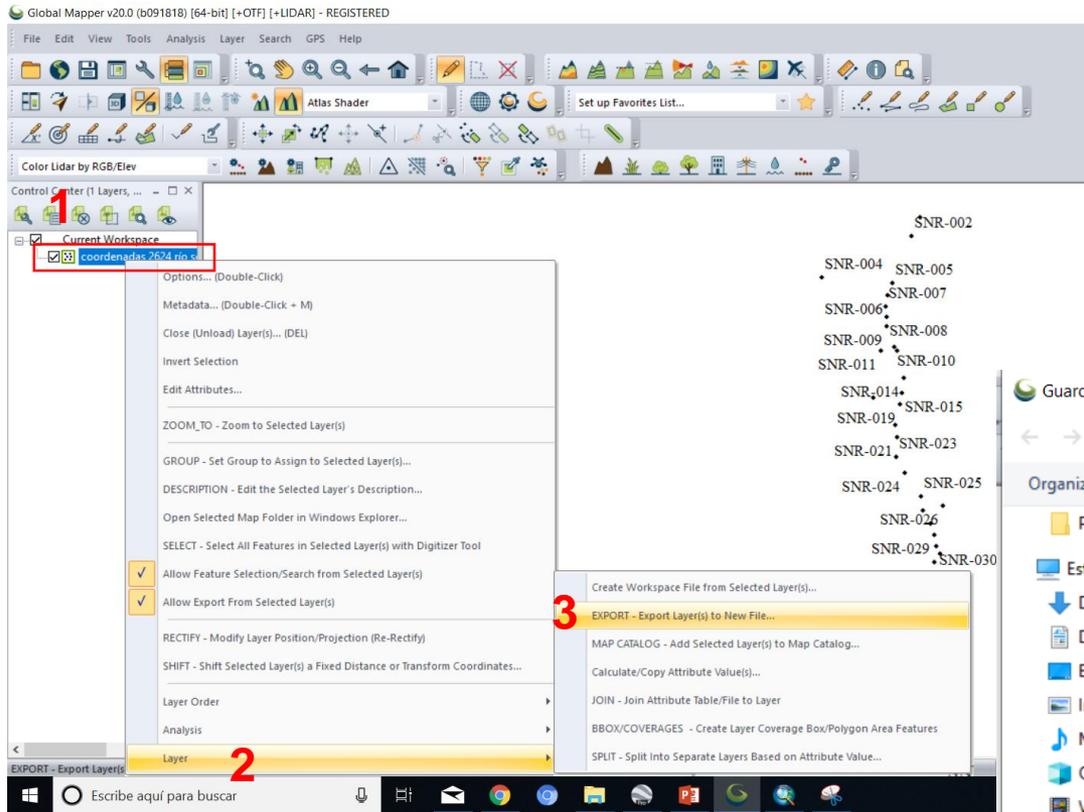
Explorar los distintos estilos que se tienen para el despliegue de los puntos



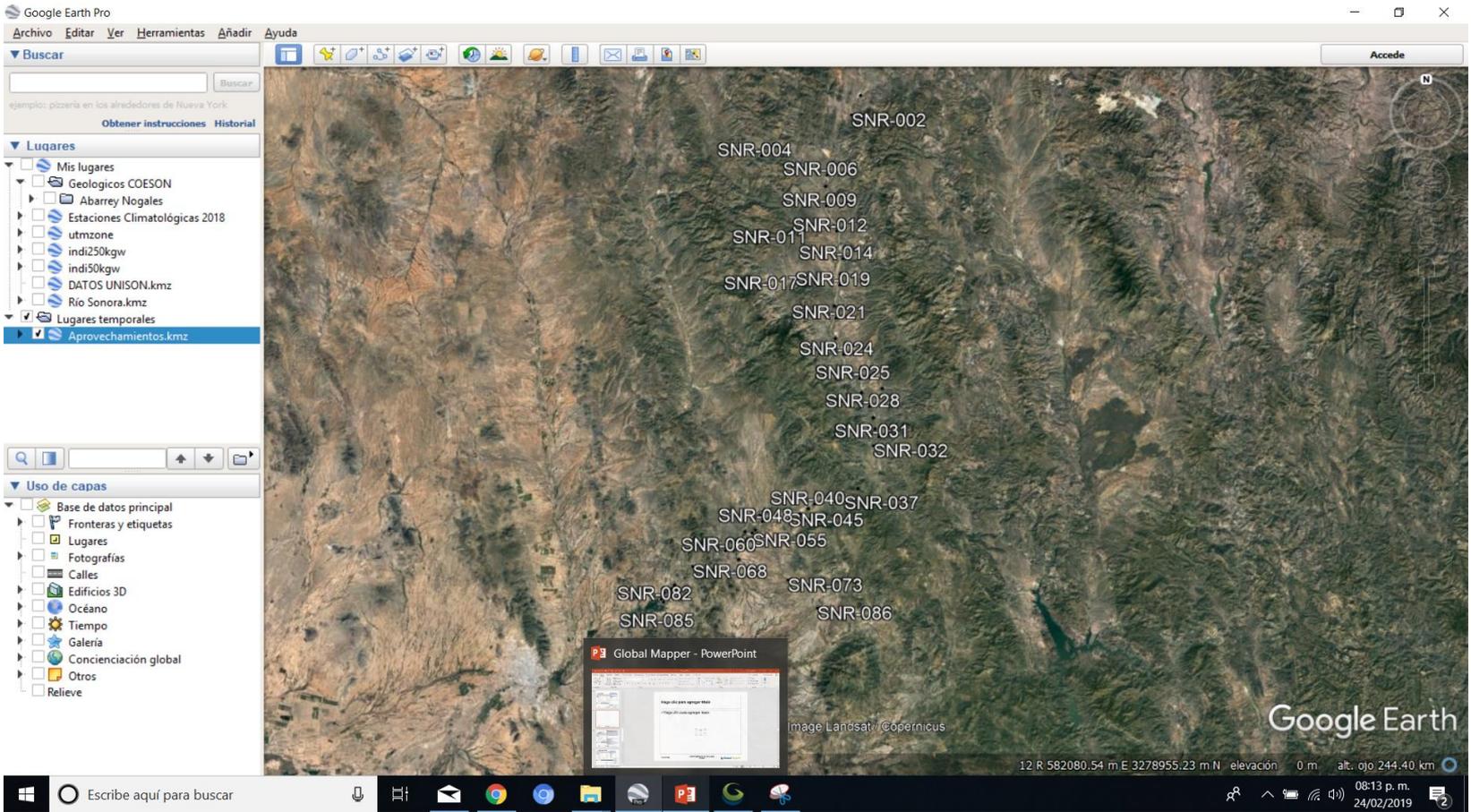
Exportar tabla a formato kmz, shp y dwg



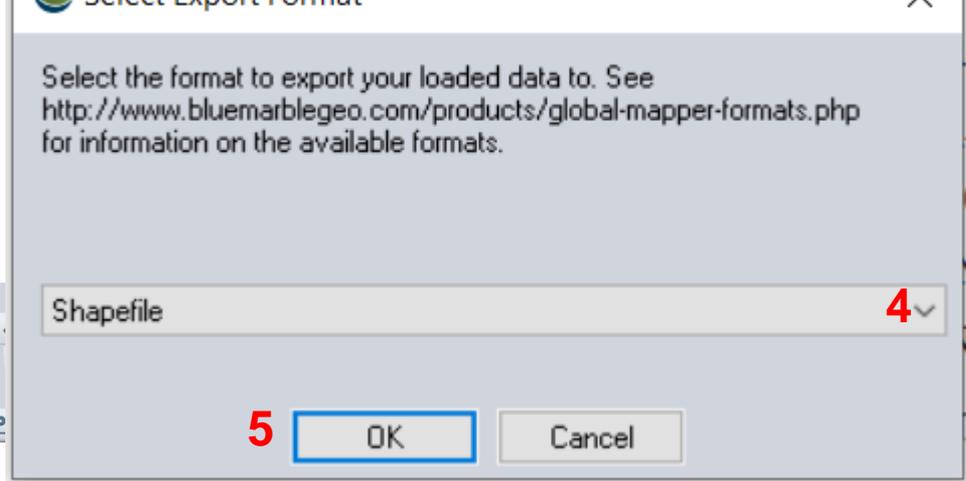
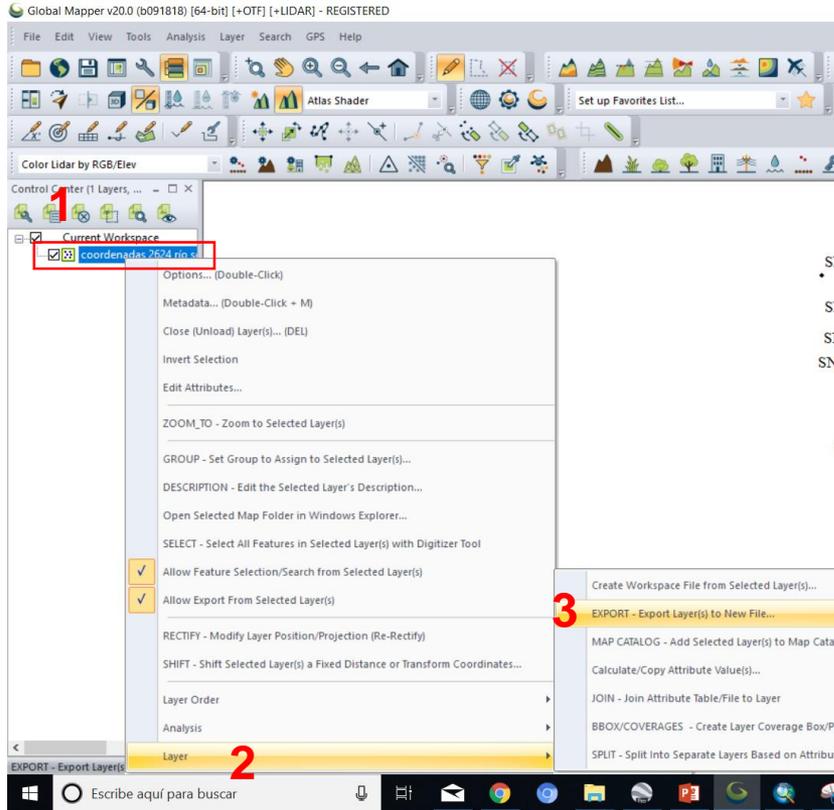
Formato KMZ



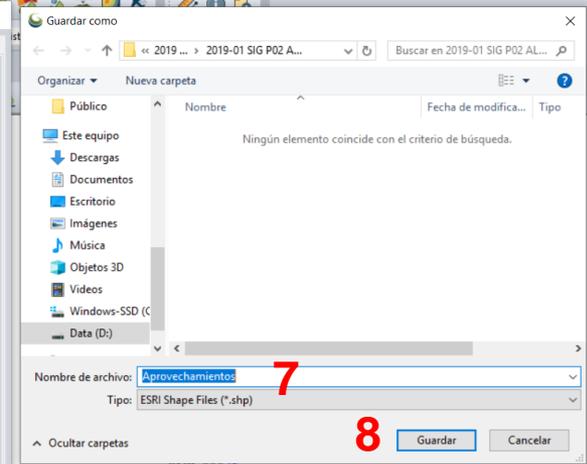
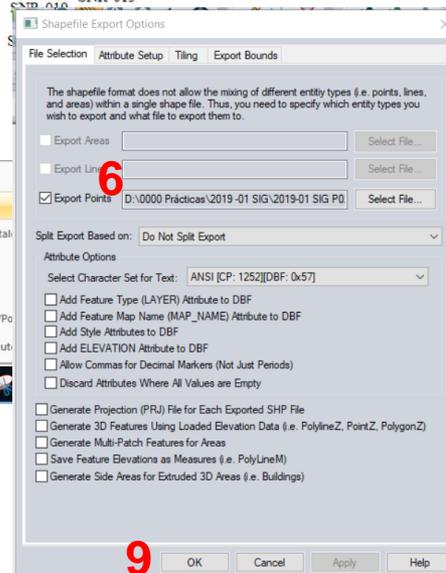
Despliegue en Google Earth



Formato SHP

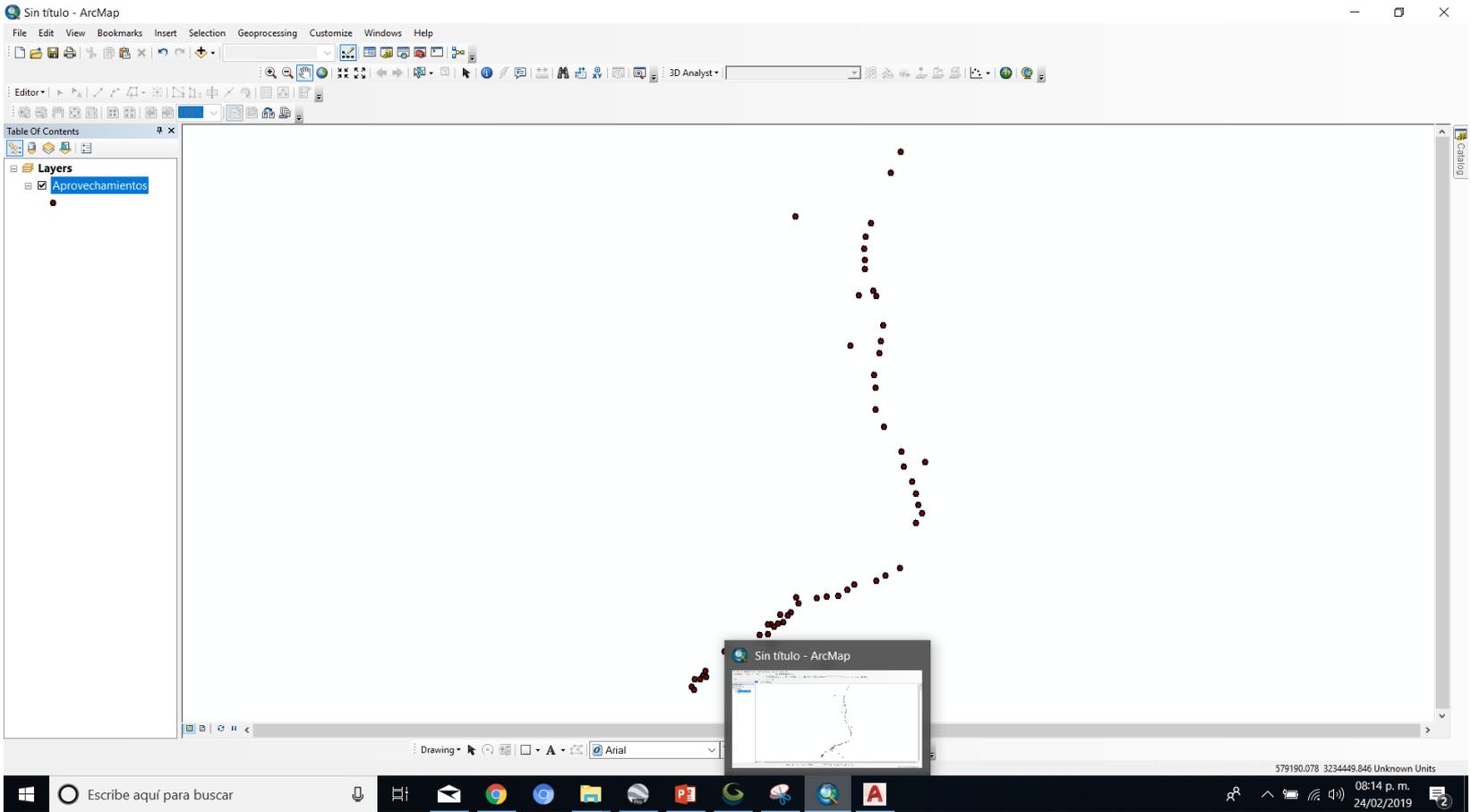


SNR-004 SNR-005
SNR-006 SNR-007
SNR-009 SNR-008
SNR-011 SNR-010
SNR_014 SNR-015



SNR-030 SNR-032
SNR-037
SNR-036A
SNR-046 SNR-044
SNR-068

Despliegue en ArcGIS



Formato DWG o DXF

Global Mapper v20.0 (b091818) [64-bit] [+OTF] [+LIDAR] - REGISTERED

File Edit View Tools Analysis Layer Search GPS Help

Atlas Shader Set up Favorites List...

Control Center (1 Layers, ...)

Current Workspace

coordenadas 2624 rio...

Options... (Double-Click)

Metadata... (Double-Click + M)

Close (Unload) Layer(s)... (DEL)

Invert Selection

Edit Attributes...

ZOOM_TO - Zoom to Selected Layer(s)

GROUP - Set Group to Assign to Selected Layer(s)...

DESCRIPTION - Edit the Selected Layer's Description...

Open Selected Map Folder in Windows Explorer...

SELECT - Select All Features in Selected Layer(s) with Digitizer Tool

Allow Feature Selection/Search from Selected Layer(s)

Allow Export From Selected Layer(s)

RECTIFY - Modify Layer Position/Projection (Re-Rectify)

SHIFT - Shift Selected Layer(s) a Fixed Distance or Transform Coordinates...

Layer Order

Analysis

Layer

EXPORT - Export Layer(s) to New File...

MAP CATALOG - Add Selected Layer(s) to Map Catalog...

Calculate/Copy Attribute Value(s)...

JOIN - Join Attribute Table/File to Layer

BBBOX/COVERAGES - Create Layer Coverage Box/Polygon Area Features

SPLIT - Split Into Separate Layers Based on Attribute Value...

SNR-001 SNR-002 SNR-004 SNR-005 SNR-006 SNR-007 SNR-008 SNR-009 SNR-010 SNR-011 SNR-014 SNR-015 SNR-019 SNR-021 SNR-023 SNR-024 SNR-025 SNR-026 SNR-029 SNR-030

1:853000 UTM 12N (WGS84) | 565672.878, 3260652.854 | 29° 28' 25.0754" N, 110° 19' 3

07:50 p. m. 24/02/2019

Select Export Format

Select the format to export your loaded data to. See <http://www.blumarblegeo.com/products/global-mapper-formats.php> for information on the available formats.

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5

- DWG
- DXF
- ECW File
- Erdas Imagine File
- Garmin Raster Maps (KMZ/JN-)
- Garmin TRK (PC/S) File
- Garmin Vector Map (Polish MP) File
- Garmin WPT (PC/S) File
- GeoJSON (JavaScript Object Notation)
- GeoTIFF
- Global Mapper Mobile
- Global Mapper Package
- GOG (Generalized Overlay Graphics) File
- Google Maps Tiles
- GPX (GPS eXchange Format) File
- Hypack Linefile
- Idrisi
- InRoads ASCII
- JPG
- JPG2000
- Kingdom Planimetric Polygon
- KML/KMZ
- KML/KMZ
- KML/KMZ (Any Data as Images)
- KML/KMZ (Vector Data Only)
- Kongsberg SIS Plan File
- LandXML File
- Landmark Graphics
- Lidar LAS File
- Lidar LAZ (LASzip) File

DWG Export Options

DWG Options Tiling Export Bounds

DWG Version: R15 (Autocad 2000)

Display Labels for Area and Line Features

Do Not Include Display Labels

Include Display Labels in Feature Layer

Include Display Labels as Separate Text Layer

Include Display Labels as Attributes

Note that some software may be unable to deal with attributes. If you have trouble with an exported DWG with this option enabled, disable this option and try

Text Size (Left Smaller, Right Bigger) - 1.00

Layer Name From: <Feature Description>

Generate Projection (PRJ) File

Create 3D Features Using Loaded Elevation Data

Preserve Feature Attributes

Generate ECEF Coordinates (Advanced Users Only)

Generate Zero-Width Lines

ADVANCED: Don't Truncate Labels at 31 Characters

ADVANCED: Save Lines with Single Elevation as 3D

7

OK Cancel Apply Help

Guardar como

« 2019 ... » 2019-01 SIG P02 A...

Organizar Nueva carpeta

Nombre Fecha de modifica... Tipo

Aprovechamientos 24/02/2019 08:11 ... AutoCAD

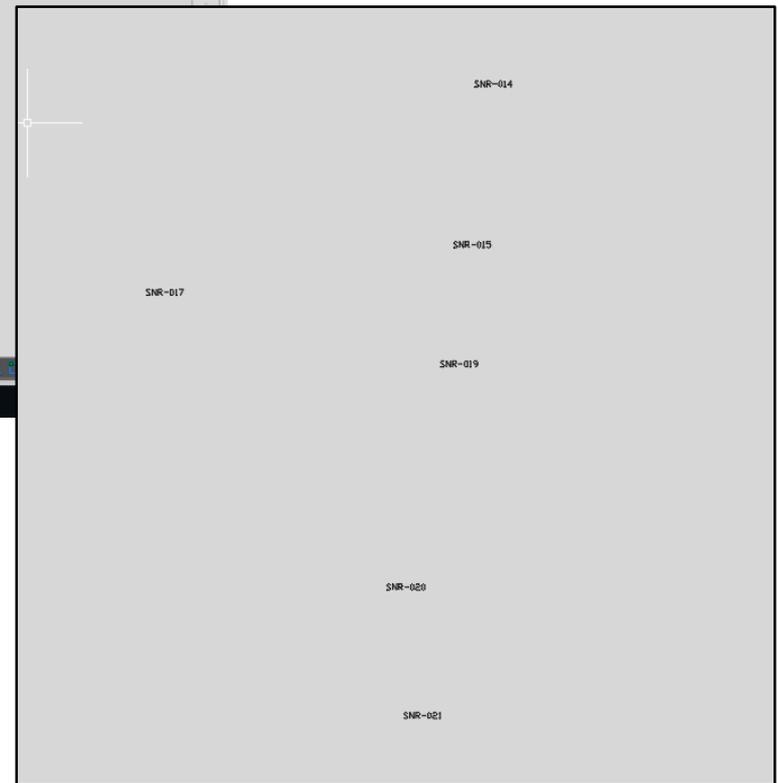
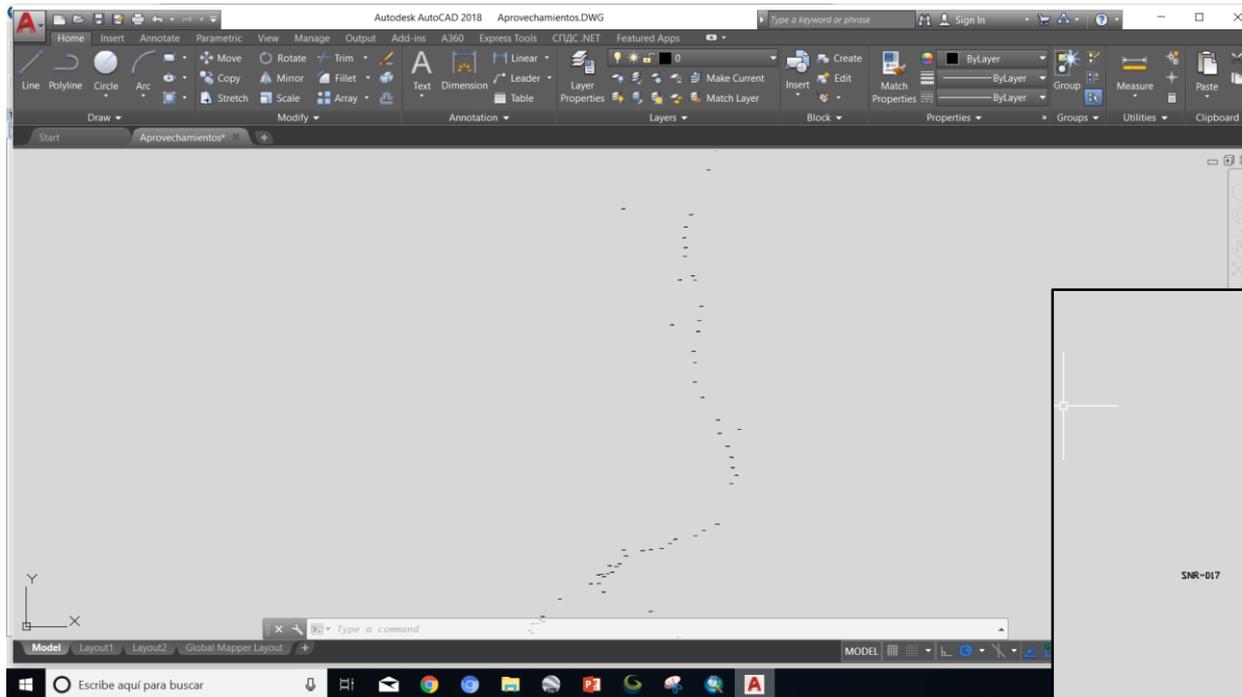
Nombre de archivo: Aprovechamientos

Tipo: AutoCAD DWG (Drawing Interchange File) Files (*.DWG)

9

Guardar Cancelar

Despliegue en Autocad



Para descargar la Modelo de Elevación Digital MED

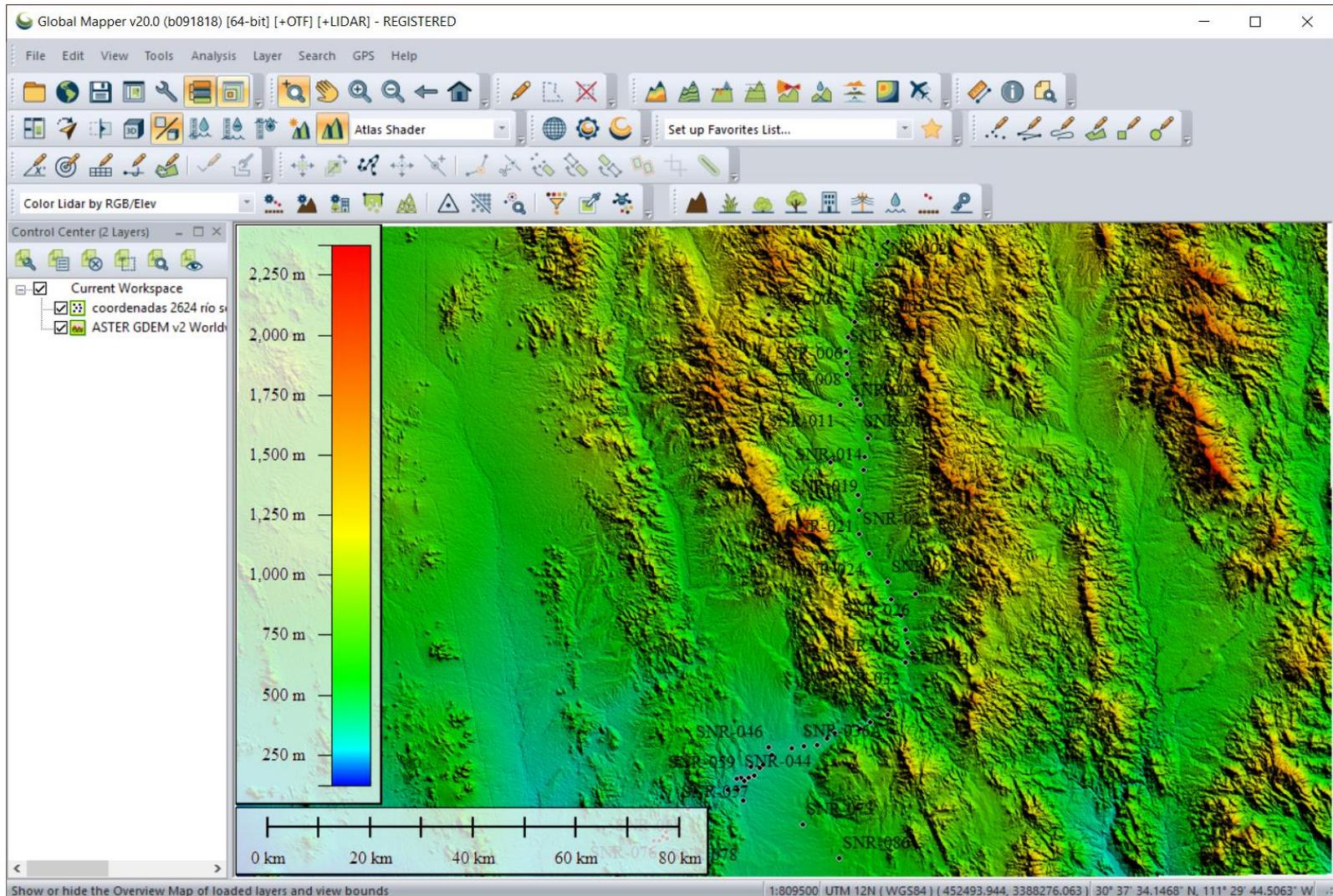
The image shows a screenshot of the Global Mapper v20.0 software interface. The main window displays a map with several points labeled SNR-001 through SNR-086. A red arrow points from the 'Download Online Imagery/Topo/Terrain Maps...' menu option (1) to the 'Select Online Data Source to Download' dialog box (2). In the dialog box, the 'ASTER GDEM v2 Worldwide Elevation Data (1-arc-second Resolution)' source is selected (3). The dialog box also shows options for selecting the area to download and display options.

1 Download Online Imagery/Topo/Terrain Maps...

2 Select Online Data Source to Download

3 Connect

Obtenemos:



Generación de curvas de nivel

The image shows the Global Mapper v20.0 interface. The 'Analysis' menu is open, and the 'Generate Contours (from Terrain Grid)...' option is selected, indicated by a red '1'. The 'Contour Generation Options' dialog box is open, showing the 'Contour Options' tab. The 'Description' field contains 'GENERATED CONTOURS'. The 'Contour Interval' is set to 100 METERS. The 'Elevation Range' is set to 115.3 to 2412.6 METERS. The 'Resolution' is set to 38.2185141425878 meters for both X and Y axes. The 'Export Contours Directly to Package Files' option is checked, highlighted with a yellow box and the text 'Quitar toda la selección'. The 'OK' button is highlighted with a red box and the number '3'. The 'Cancel', 'Apply', and 'Help' buttons are also visible.

Es importante verificar que los atributos de la columna de elevación se mantengan con datos numéricos. Si esto no ocurre es muy probable que cuando se exporten estos contornos a otro software p.e. ArcGIS no se puedan elaborar procesos como generación de TIN o RASTER

1. Clic derecho al archivo de GENERATED CONTOURS

2. Edit Attributes...

3. Attribute Editor (GENERATED CONTOURS)

<Feature Name>	<Feature Type>	ELEVATION	CLOSED_CONTOUR	<Feature Description>	<Feature Layer Name>	<Index in Layer>	<Last Modified Time>
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17597	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17596	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17595	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17594	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17593	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17592	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17591	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17590	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17589	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17588	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17587	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17586	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17585	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17584	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17583	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17582	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17581	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17580	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17579	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17578	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17577	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17576	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17575	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17574	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17573	2019-02-24T19:33:01
1000	Contour Line, ...	1000	YES	Contour Line, Major	GENERATED CONTO...	17572	2019-02-24T19:33:01

Al generarse las contornos procederemos a convertir un archivo SHAPEFILE Debemos darle clic derecho al archivo de GENERATED CONTOURS para que se despliegue la ventana 1

Global Mapper v20.0 (b)

Options... (Double-Click)
Metadata... (Double-Click + M)
Close (Unload) Layer(s)... (DEL)
Invert Selection
Edit Attributes...
ZOOM_TO - Zoom to Selected Layer(s)
GROUP - Set Group to Assign to Selected Layer(s)...
DESCRIPTION - Edit the Selected Layer's Description...
SELECT - Select All Features in Selected Layer(s) with Digitizer Tool
Allow Feature Selection/Search from Selected Layer(s)
Allow Export From Selected Layer(s)
RECTIFY - Modify Layer Position/Projection (Re-Rectify)
SHIFT - Shift Selected Layer(s) a Fixed Distance or Transform Coordinates...
Layer Order
Analysis
Layer

1

2

3

4

5

6

7

Shapelite Export Options

File Selection / Attribute Setup / Tiling / Export Bounds

The shapelite format does not allow the mixing of different entity types (i.e. points, lines, and areas) within a single shape file. Thus, you need to specify which entity types you wish to export and what file to export them to.

Export Areas
 Export Lines
 Export Points

Split Export Based on: Do Not Split Export

Attribute Options

Select Character Set for Text: ANSI [CP: 1252][DBF: 0x57]

Add Feature Type (LAYER) Attribute to DBF
 Add Feature Map Name (MAP_NAME) Attribute to DBF
 Add Style Attributes to DBF
 Add ELEVATION Attribute to DBF
 Allow Commas for Decimal Markers (Not Just Periods)
 Discard Attributes Where All Values are Empty

Generate Projection (PRJ) File for Each Exported SHP File
 Generate 3D Features Using Loaded Elevation Data (i.e. PolylineZ, PointZ, PolygonZ)
 Generate Multi-Patch Features for Areas
 Save Feature Elevations as Measures (i.e. PolyLineM)
 Generate Side Areas for Extruded 3D Areas (i.e. Buildings)

OK Cancel Apply Help

Guardar como

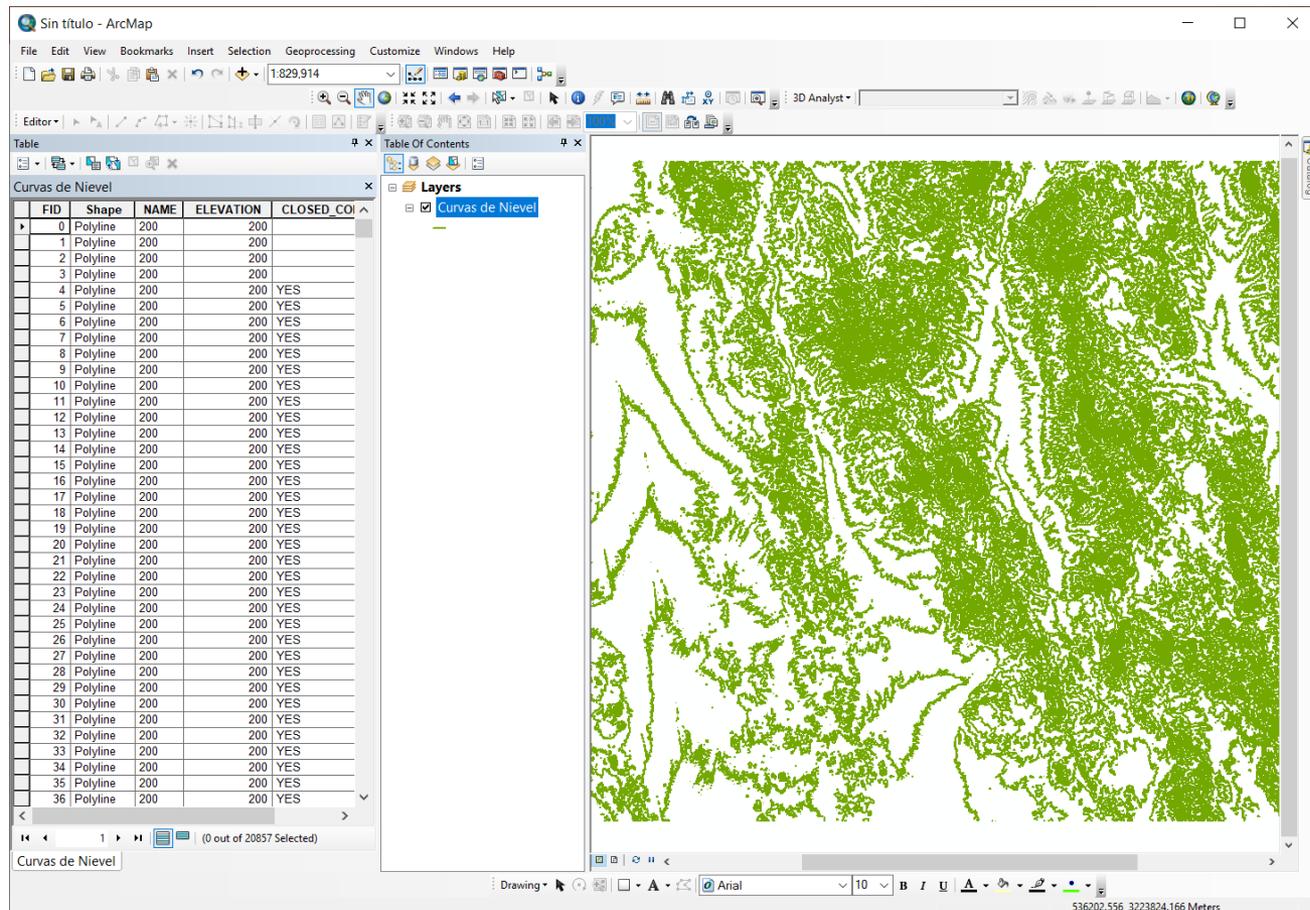
Organizar Nueva carpeta

Nombre de archivo: Curvas de Nivel

Tipo: ESRI Shape Files (*.shp)

Guardar Cancel

Una vez exportado el SHP se puede desplegar en ArcGIS o en otro software de SIG



Nota:

Las curvas de nivel también pueden ser exportadas en KMZ, DWG, DXF, etcétera, según las necesidades del proyecto.

Archivos a enviar en una carpeta comprimida con el nombre de 2019-01 SIG P02 ALMH*

- KMZ de los aprovechamientos y de las curvas de nivel
- SHP de los aprovechamientos y de las curvas de nivel

- * LAS INICIALES PROPIAS

EDICIÓN DE PLANO

La edición se realizara en clase