

Overview of files in the Arc project and on the CD-ROM

The ValleVidal Arc Map project contains DRGs for the topographic maps within the area. These raster images build pyramids and build temporary files that are stored in C:\temp\rasterproxies folder. If you do not have this folder on your computer you will need to create the folder.

The following is a listing of the subfolders used in the Arc Map project found on the CD. The Arc project was developed in ArcMap 8.2 and is called ValleVidal_1103. Metadata was created and imported in ArcCatalog for the coverages found in these directories. The following is a brief explanation of the shape files and databases.

Culture subfolder: Files were obtained from the RGIS site. In general the files have been clipped (towns, rivers, roads) with the Colfax county boundary.

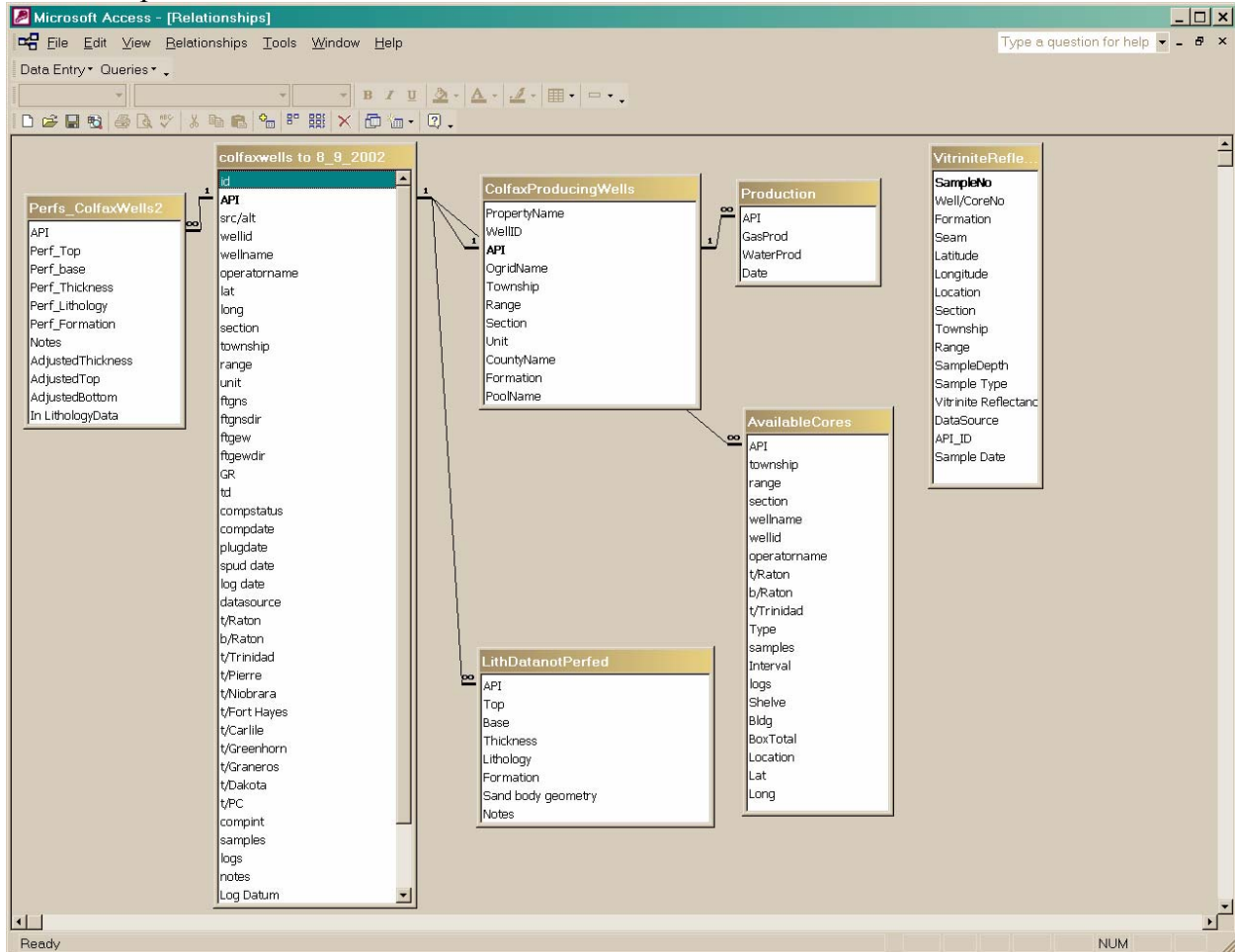
- Colfax_boundary is the outline of Colfax County taken from New Mexico County coverage.
- Colfax_rivers, Streams, and Colfax_rivers1 are from RGIS shape file of major rivers in New Mexico. Colfax_rivers1 combines Colfax_rivers and Streams.
- Colfaxrdsclpd is from the RGIS site of major roads in the state- tgr7rds00- Tiger data.
- ColfaxTowns shape file is clipped from tgrplc00 – Tiger data.
- OffNFS1950rd is a selection from the Colfaxrdsclpd shape file of the road leading from Highway 64 to NFS road 1950.

Database subfolder: Files include:

- The Access database ColfaxCBM2000 with the production data and geological data about the wells (scout card, geophysical logs, coal picks, and perforation data). The Access database is Appendix 6 of the report.
- The W_roads database was supplied by the Carson National Forest (NFS) as a dataset of the accessible roads in the Carson National Forest.
- The RatonMines2000 database contains information on inactive mines in the Raton coal field. A form view comes up when you enter the database. This database was used for the CLFXMINE dbf file to create the coal mine layer in the arc project, which is in the Datafiles subfolder.
- Colfaxprodto1203.xls is an Excel workbook with spreadsheets on gas and water production. These are derived from crosstabs created in the ColfaxCBM2000 database. The purpose is to tabulate total and cumulative production for all producing wells through 12/03 and create graphs. These data is from <http://octane.nmt.edu/data/ongard/> - the online OCD database for production data.

The Access database has a tool bar that can take you to the forms set up to view the well data (Colfax Wells) the production data (Producing Wells) Vitrinite reflectance and the Available cores by clicking on “Data Entry”. Some of the queries are listed in the dropdown “Queries” however all the queries are seen in the database window and have a descriptor for the main

queries. The Colfax Wells form comes up when you enter the database. The main tables and their relationships are shown below.



Datafiles subfolder: Files include:

- dbf files derived from queries of the ColfaxCBM2000 database to supply xyz data for the Arc project.
- There are two contour shape files- one for the structure on the top of the Ft. Hayes (FtHayesContour.shp), the other on the top of the Trinidad Sandstone (TrinidadContour.shp). These contours were drawn using the xyz data from the TOPFORTH (Ft Hayes) and TOPOFTRI (Trinidad) dbfs.
- WANEKT is data from Wanek (1963) measured sections for the top of the Trinidad Sandstone along the edge of the basin. This data was used to construct the TrinidadContour shape file as well.
- ALLWELLS.dbf contains all the location information for all the wells in the database, producing and non-producing.
- Cross_section shape file contains the lines showing the two cross sections constructed through the producing areas using the well locations to “connect the dots”. The points that comprise the cross section are in XSCTNS.dbf; derived from a query of the ColfaxCbm Access database.

- CLFXMINE.dbf is the data file for the coal mine location data.
- PRODUCIN.dbf contains the location and names of the wells that are producing; this is derived from a query in the Access database using the production data and the well data joined on the API number. The join is such that only the producing wells are retrieved by the query.
- Ro shape file represents the $\geq 0.8 R_o$ area that is determined by the vitrinite reflectance points (VitriniteReflectance Table in the Access database) in the XY VitriniteReflectance shape file.
- RNC and VNC133 are the Raton net coal thickness data and Vermejo net coal thickness data used for the shape files in the ArcMap project. These are generated from the database through queries.
- Subdistricts shape file are coal mining districts derived from Pillmore (1991) in Coalfields of New Mexico: Geology and Resources, U.S. Geological Survey Bulletin 1972, Figure D8, page 62. These represent areas where there has been coal mining in the past and through Pillmore's work defined areas where there are coal deposits.

ElPaso subfolder: contains shape files from data obtained from the NM Oil and Gas Conservation Division for the wells drilled by El Paso LLC. Public Land Survey System (PLSS) projection into the Maxwell Land Grant (grid system) CntySctnClp and CntyTownshipclip shape files were clipped from CountySections and Countytownship shape files, respectively to be within Colfax County and not cover the Valle Vidal study area.

- Because the PLSS provided from the OCD is different from the NFS, the PLSS from the NFS is a layer clipped to the Valle Vidal unit and resides in the NFS subfolder.
- PipelineColfax shape file is the El Paso LLC pipeline (epfshpgaspipeline) clipped to that part of the pipeline within Colfax County.
- The epfshpgaspipeline shape file extends into Colorado.
- A 0.5 mi buffer was created around these wells to create producing areas that are a layer in the Arc project. This shape file (ProducingAreas) exists in this subfolder.

Geology subfolder: contains the geologic data used in the ARC project.

- GeologyRaton, GeologywQa, QafromOldGeo, and ELateCretaceous shape files contain the formational units outcropping within the Raton Basin in New Mexico. These layers are derived from a compilation of the geology that is part of the digital map 1:500000 found on the RGIS site done by the USGS and the NMBG several years ago. On this map there is a transitional band between the Poison Canyon and the Raton formations. On the New state geologic (1:500,000) map recently released by the NMBGMR this area is dissolved and the Poison Canyon – Raton contact has been adjusted with the topography. Mark Mansell at the NMBGMR put this part of the map into digital form for this project. Further detail for each shape file is given in the associated metadata found through ArcCatalog.
- RatonFault_Intrusions, QafromOldGeo and EarlyLCretaceous shape files are derived from the digital state map coverage that is open filed by the USGS and available at http://rgis.unm.edu/loader_div.cfm?theme=Geology&subtheme=General.

- The Fire Wall Dike (TheFireWall shape file) and The Rock Wall (TheWall) are igneous dikes within the Valle Vidal study area. These features were selected from the RatonFault_Intrusions shape file and then buffered (0.25 mi) to create the BufferFireWall025 and BufferTheWall025 shape files. These files were used in estimating the number of wells per section within the study area.
- Tui_ValleVidal and BufferTui_ValleVidal025 are igneous intrusions taken from the GeologyRaton shape file and buffered that occur in the Valle Vidal study area.

NFS subfolder: contains shape files obtained from the Carson National Forest.

- ValleVidalUnit shape file is the outline of this area derived from v11owner shape file, coverage for the Carson National Forest.
- The StudyArea1 is the eastern part of the Valle Vidal, the western edge defined by The Wall igneous dike.
- W_roadsValle are the roads shape file within the Valle Vidal taken from the W_roads database.
- 1914rd and 1950rdStudyAreaclp are two main roads within the study area that were buffered (300ft) creating the 300ft_Buffer1914rd and 300ftBufferStudyArea1950rd shape files that were used in estimating the number of well sites per section.
- StudyArea1950rd is a selection of the 1950 road from the W_Roads that was then clipped to within the Study Area.
- v11owner shape file is the original PLSS sent by the Carson National Forest.
- proj_sectionclp shape file is the clipped to the Valle VidalUnit.

Topos subfolder: contains all the 7.5' drgs for the Study Area and surrounding quadrangles.

These are set to only be seen if you zoom into 1:62,500 or less. A further explanation is given in the text file TopoNaming. The metadata for these 7.5' topos are in the Metadata subfolder. The 1:100,000 drgs are included in the 1K subfolder; however they are not in the Arc project because they take a long time to load and will not fit on one CD-ROM. The Colfax_hill raster coverage is included and is part of the Arc project. Road coverages for the Raton, Taos, and Wheeler Peak 1:100,000 quadrangles are also in this subfolder (i.e. traton).

VanBremm and VermejoPk subfolders contain the digital geology for the Van Bremmer and Vermejo Park quadrangles. This data was recently open filed by the US Geological Survey. The geology was done by Charles Pillmore. These are set to only be visible when you zoom in to 1:62500 or less. The web sites for these two data sets are at:

Vermejo Park <http://pubs.usgs.gov/of/2003/ofr-03-438/>

Van Bremmer <http://pubs.usgs.gov/of/2003/ofr-03-437/>