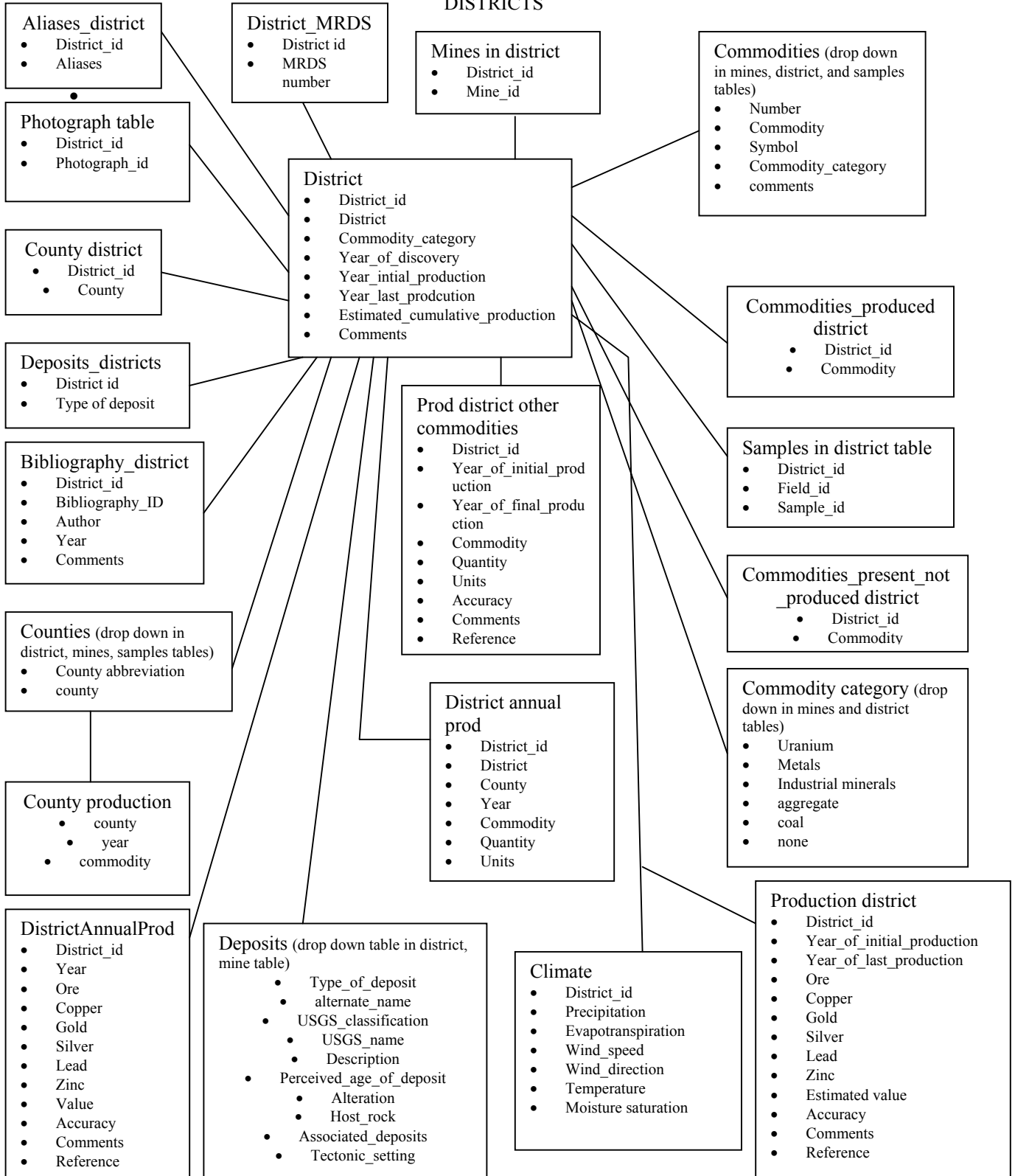


DESIGN OF THE NEW MEXICO MINES DATABASE
NEW MEXICO MINES DATABASE

DISTRICTS



MINES

- Samples in mines
- Mine_id
 - Sample_id

Photographs table

- Mine_id
- Photograph_id

Aliases mines

- Mine_id
- Aliases

Bibliography mines

- Mine_id
- Bibliography_ID
- Authors
- Year

Mine features

- Mine_id
- Feature_id
- Type_of_feature
- Latitude
- Longitude
- UTM_northing
- UTM_easting
- UTM_zone
- Type_of_feature
- Depth
- Length
- Width
- Elevation
- Description
- Hydrology
- Reclamation
- Mitigation_status
- comments

Commodities present not produced mines

- Mine_id
- Commodity

Commodities produced mines

- Mine_id
- Commodity

Significant deposits

- Mine_id
- Is_it_significant
- Significant_commodities
- Comments

Mines

- Mine_id
- County
- District_id
- District
- Mine_name
- Township
- Range
- Section
- Subsection
- Latitude
- Longitude
- Utm_easting
- Utm_northing
- Utm_zone
- Location_assurance
- Point_of_location
- Location_comments
- Production_category
- Commodity_category
- Commodities_produced
- Commodities_present_not_produced
- Year_of_initial_production
- Year_of_last_production
- Comments_on_production
- Development
- Depth_of_workings
- Length_of_workings
- Disturbed_area_acres
- Operating_status
- Production
- Mining_methods
- Surface_land_status
- Minerals_land_status
- Ownership
- Primary_company
- Access
- Mining_history
- Cultural_features
- Host_formation
- Age_host_rock
- Age_of_mineralization
- Rock_type
- Geology
- Mineralogy
- Size
- Alteration
- Type_of_deposit
- USGS_quadrangle
- Elevation
- Method_of_obtaining_elevation
- Land_use
- Potential_hazardous_materials
- Evidence_of_potential_acid_drainage
- Hydrology
- Receiving_stream
- Reclamation
- Mitigation_status
- Sensitive_environments
- Sample_number
- MRDS_number
- Other_agency_number
- Chemical_analyses
- Comments
- Recommendations
- References
- Inspected_by
- Date_inspected
- Date_of_last_modification

Patented mines

- Mine_id
- Mineral_survey_number
- Patent_number
- Date_patented
- Comments

Production mines

- Mine_id
- Year_of_initial_production
- Year_of_last_production
- Year
- Commodity
- Quantity
- Units
- Comments
- Reference

Gravel data

- Mine_id
- Mine_name
- Source_Rock_(gravel)
- Material_Quality
- Material_Thickness
- Underlying_Material
- Vegetation
- Local_Terrain
- Overburden_Thickness
- Est_Quantity_(cubic_yds)
- Los_Angeles_Wear
- Soundness_Loss
- Average_Max_Size
- Percent_Retained_2_inch_Sieve
- Pit_Avg_percent_Pass_2_inch_Sieve
- Avg_percent_Passing_1_inch
- Avg_percent_Passing_3_4_inch
- Avg_percent_Passing_half_inch
- Avg_percent_Passing_No_4
- Avg_percent_Passing_No_10
- Avg_percent_Passing_No_200
- Plasticity_Index
- Comments
- Reference

Resources/resources

- Mine_id
- Year_of_resources/reserves
- Quantity_of_ore
- Grade
- Commodity
- Quantity_of_commodity
- Units
- Accuracy
- Comments
- Reference

Ownership

- Mine_id
- Owner_id
- Ownership
- Owner_category (land, claim, mining company)
- Year_initial
- Year_final
- Address
- City
- State
- Zipcode
- Phone_number

- Access (drop down in mines table)
- 2WD
 - 4WD
 - Hike
 - Other

- Inspected_by (drop down in mines table)
- Inspected by
 - Full name
 - affiliation

- Land_use (drop down in mines table)
- Recreation
 - Residential
 - Wildlife refuge or preserve
 - other

- Land_status (drop down in mines table)
- Federal
 - state
 - private
 - patented
 - Indian

- AMD (Evidence of potential acid drainage) (drop down in mines table)
- Arsenopyrite
 - Marcasite
 - None
 - Other sulfides
 - pH of water less than 4
 - Pyrite
 - Pyrrhotite
 - Sulfate minerals

- Cultural_resources (drop down in mines table)
- Buildings
 - Foundations
 - Headframe
 - Homesite
 - Mill
 - None
 - Powerlines
 - Refinery
 - Trestles/tramways

- Hydrology (drop down in features table)
- Above water table
 - Adjacent water sources
 - Mine flooded
 - Water flowing from workings
 - Standing water in workings
 - Water flowing through/over workings
 - Water flowing through/over waste rock
 - Water flowing through/over ore
 - Adjacent water sources
 - Pit lakes
 - Ground water
 - Surface water
 - None
 - other

- Hazard (Potential_hazardous_materials) (drop down in mines table)
- Chemical spills or piles
 - Acid or chemical odor
 - Asbestos
 - Petrochemical products
 - Dump sites
 - Power substations
 - Transformers
 - Barrels, tanks, containers
 - Leaking
 - Contents
 - Underground storage tanks (LUST)
 - Radiation
 - Other
 - None

- Elevation method (drop down Method of obtaining elevation)
- **Est:** Estimated from topographic map
 - **HHGPSoff:** Location from hand-held, GPS, SA off (± 20 m)
 - **DCGPS:** Location from differential-corrected GPS
 - **WAGPS:** Location from wide-area augmentation GPS
 - **Surveyed:** by mining company
 - **Other**

- Reclamation (drop down in mines table)
- Erosion
 - Unstable rock
 - Slope instability
 - High walls
 - Wind erosion
 - Other

- Location_assurance (drop down in mines and samples tables)
- **Est_sec:** Estimated location from file data to nearest section
 - **Est:** Estimated location from literature or file data, to nearest $\frac{1}{4}$ section
 - **Est_topo:** Estimated from topographic map
 - **Topo:** Accurate location from topographic map
 - **HHGPS:** Location from hand-held GPS, SA on (± 100 m)
 - **HHGPSoff:** Location from hand-held, GPS, SA off (± 20 m)
 - **DCGPS:** Location from differential-corrected GPS
 - **WAGPS:** Location from wide-area augmentation GPS

- Point_of_location_reference (drop down in mines and samples table)
- Literature
 - map symbol
 - field location
 - center of section
 - center of NE section
 - center of NW section
 - center of SW section
 - center of SE section
 - center of mine complex
 - center section line

- Operating status (drop down in mines table)
- Standby
 - Inactive
 - Active
 - Suspended
 - Decommissioned
 - Abandoned
 - Deve
 - Exploration
 - Occurrence
 - Temp sus

- Sensitive environments (drop down in mines)
- Sensitive environments
 - description

- Production_category (drop down in mines table)
- A
 - B
 - C
 - D
 - E
 - F
 - G
 - H
 - No
 - u

- Mitigation_status (drop down in mines table)
- Backfilled adit
 - Backfilled shaft
 - Fencing
 - Gate
 - None
 - None needed
 - Other
 - Safety hazards mitigated signs

CHEMISTRY

- Sample**
- Field_id
 - Mine_id
 - Feature_id
 - District_id
 - Project_id
 - County
 - Media
 - Type_of_sample
 - Sample_description
 - Method_of_sample_collection
 - Latitude
 - Longitude
 - UTM_easting
 - UTM_northing
 - UTM_zone
 - Location_assurance
 - Point_of_location
 - USGS_quadrangle
 - Elevation
 - Method_of_obtaining_elevation
 - Depth
 - Well_depth
 - Depth_to_first_perforation
 - Water_depth_in_well
 - Reason_for_sampling
 - Geology
 - Sample_location
 - Location_description_of_sample
 - Comments
 - Date_collected
 - Inspected_by
 - Reference

- Projects**
- Project_id
 - Project_name
 - Long_name
 - Principle_investigator
 - Other_investigators
 - Project_start_date
 - Project_end_date
 - Purpose_of_project
 - Description_of_project
 - Geographic_area
 - Funding_source
 - Comments
 - References

- Analyses table**
- Sample_id
 - Field_id
 - Laboratory_id
 - Laboratory_number
 - Method_id
 - Laboratory_job_number
 - Element (commodity)
 - Concentration
 - Unit
 - Detection limit symbol (<, > DL)

- Photograph**
- Field_id
 - Photograph_id

- Laboratory**
- Laboratory_id
 - Laboratory_name
 - Laboratory_address
 - Laboratory_town
 - Laboratory_state
 - Laboratory_country
 - Laboratory_zipcode
 - Laboratory_phone_number

- Bibliography**
- Field_id
 - Reference

- Sample preparation**
- Sample_id
 - Field_id
 - Preparation description
 - Prepped by

- Analytical method**
- Laboratory_id
 - Method_id
 - Analytical_method
 - Commodities
 - Lower_detection_limit
 - Upper_detection_limit
 - Units
 - Instrument

- Media (Drop down in sample table)**
- Solid, liquid, air, biological

- Mineralogy**
- Field_id
 - Mineral
 - Abundance
 - Unit
 - Method

- Type of sample (Drop down in sample table)**
- Type of sample
 - description

- Field measurements**
- Field_id
 - Flow
 - pH
 - Conductivity
 - Alkalinity
 - Temperature

- Sample description (Drop down in sample table)**
- Sample description
 - description

PHOTOGRAPHS

