

APPENDIX C₁
Chemical Data
Electronic Database

Documentation for Chemical Database

Database Structure

The Upper Arkansas River Basin Natural Resource Damage Assessment Chemical Database (the database) stores information concerning environmental conditions in the Upper Arkansas River Basin. One of the major goals of building the database is to compile large volumes of water, soil, and sediment quality information from numerous sources into a common repository, organized in a manner such that the combined data can be readily analyzed, (e.g. Statistical measures developed for specific time periods, and graphs of temporal and spatial trends produced). Another goal of the database is to provide a record of those data used in the site characterization.

The data are stored in the Microsoft Access 2000 relational database, and the database is structured in a manner that allows the information to be stored efficiently, while enforcing data integrity and minimizing redundancy. This is accomplished by storing the data in a set of hierarchically related tables that model the hierarchical nature of environmental data. The database contains information from numerous “datasets”. For the purposes of this report, a “dataset” is a single collection of data received as a discreet “deliverable”, e.g. data from a report, paper, spreadsheet, etc. Each dataset may contain data from numerous sampling stations. Many samples may be collected from an individual station over time. Each sample may be analyzed for numerous analytical parameters, and a numerical result will be generated to quantify each parameter. Thus, the primary tables in the database store information about data sources, stations, samples, analytical parameters, and analytical results. Logical connections, or links between data records in the various tables are maintained through table relationships and values in key data fields. All key values used in relationships between the primary data tables are long integer data type, and are assigned during the data import process by the import program.

Many data fields in the primary data tables store information as coded values. These codes are typically integer values or one or two –character text strings. Each data field that stores coded values is linked to a lookup table that defines the codes. The use of data codes and lookup tables promotes data storage efficiency and data consistency. Data codes are assigned during the import process, and a database table documents these assignments and translates the original values to the data codes.

All relationships in the database are set up and maintained to enforce referential integrity. This means that entries in a coded value field are limited to the values in that field’s associated lookup table, and that a sample record (for example) cannot exist in the samples table without an associated record describing the sampling station in the stations table.

Tables, queries, and other database objects are named following standard naming conventions. Object names consist of a lower-case prefix to indicate object type, followed by a proper case descriptive name. The prefixes tbl, lk, and qry are used to indicate primary data tables, lookup tables, and queries, respectively.

A table of Data Sources for the Upper Arkansas Site Characterization Database can be found at the end of this appendix. An Entity-Relationship Diagram for the database table is also included in this appendix.

Dataset Processing & Import

Raw datasets received from all data sources were checked for a minimum set of required information for each sample, and if sufficient information was available to allow processing, a restructuring process was performed prior to importing into the database. Datasets were prioritized for entry into the database based on how recent and how complete and pertinent the data were for site characterization purposes. A pair of digital data folders was created to store files associated with each dataset. A read-only folder was created to preserve the original unprocessed data files as they were received from the data provider. The second folder was made to store files as they underwent the restructuring necessary for import to the database.

Datasets were required to have (at a minimum) a) complete sample location, i.e. known geographic coordinates, b) sample collection date, c) analytical parameter, d) numerical result value, and e) units of measure information in order to be included in the database. In addition to these minimum requirements, every effort was made to obtain sample depth, analytical method, and limits of detection data for each dataset.

Sampling station location data was requested, and typically received, as X-Y coordinate pairs. In cases of datasets lacking coordinate data but having detailed location descriptions, the descriptions and GIS software were used to generate coordinates. Datasets lacking both coordinates and detailed location descriptions were not usable. However, in cases where a small percentage of a dataset's stations lacked sufficient locational data these stations were included in the database in the hope that the locational data may be obtained through ongoing data acquisition efforts. (Data associated with these stations were excluded from data analysis efforts until coordinates were obtained.)

Sample collection date information was requested and typically received as complete month/day/year dates. Certain datasets contained incomplete sample date information, typically as month/year. The database structure requires dates to be stored in month/day/year format. When incomplete dates were encountered, a request was made to the data provider to obtain the missing information. If attempts to obtain exact sample date data were unsuccessful, sample dates were assumed based on available information and a note was made in the samples table for those records.

After all essential data components were obtained, the datasets were prepared for import to the database. All data was brought into the database through a custom import program. This program is built into the database, and receives the incoming data via an import template table. The process of adding data to the database involves two principal steps. First, each dataset must be processed into the structural format of the template table, and then the import program is run to move the data elements from the template table to the appropriate tables in the repository database.

A Microsoft Access 2000 database file was created for each source dataset for pre-processing purposes. Each one of these database files contains all original data files and tables associated with a dataset and any queries, utility programs, and intermediate tables that were created in order to restructure the dataset into the import table. The import table is a flat-file table containing 34 data fields to accommodate anticipated data elements, five long text fields for notes and miscellaneous data, and three long integer fields to store key values assigned by the import program.

At the conclusion of the pre-processing, each dataset (in the import template format) was brought into the main repository database and the import program was run. This program consists of four steps initiated from a user interface form. Step one opens a form for entry of general information about the dataset including: title, author, source organization, date published, etc. The second step runs a procedure that converts all null values in the import table to missing data flags. This is necessary because procedures used in the program require that all data fields contain non-null values. Null date and time data elements were set to 11/11/1111, and null numeric and text values were replaced with -9999.99. Step three of the program opens an interactive form used to assign lookup values for data fields that are stored as coded values tied to lookup tables. The form displays a list of fields for which lookup values need to be assigned. When a field is selected, two new lists are populated. One displays a list of unique values for the field from the import table, and the other lists the values currently in the associated lookup table. Lookup codes are assigned by selecting a value from the import table list and double-clicking the desired value in the lookup table list. An option exists on the form to add entries to the lookup table if necessary. All lookup code assignments are written to a database table. This table is used by the final step of the import program to translate the original values to lookup codes as records are written to the

repository database tables. The table also provides documentation of the data translations made during import. The final step of the import process runs a series of procedures that assign key values used in the database relationships, and append the data to the appropriate tables in the repository database.

Post-Import Data Conversion

The database was constructed with the philosophy of preserving data values as they were originally reported, to the extent possible. This approach minimizes opportunity for errors induced by data conversion and manipulation, and facilitates easy comparison between the database and original files, but is in apparent conflict with the database goal of normalizing data to a readily comparable state. This conflict was handled by storing original data values in the database, but then providing means to dynamically normalize the data to a readily comparable state. This normalization process was carried out for station locations, station types, analyte names, numerical values/units of measure, and data qualifiers.

Sampling stations provided numerous data normalization challenges. Due to the variety of data sources, numerous station naming conventions and coordinate systems were encountered. Station names were not usable in efforts to group all samples collected at a given location because different data sources assigned different names to common sampling stations. Conversely, common station names were assigned to a variety of different sampling locations by various organizations. In addition, stations associated with sample records common to multiple datasets were often found to have slightly different coordinates in the separate datasets. These discrepancies were introduced by the variety of conventions and electronic storage formats used by various data source organizations. The GIS was used to project all coordinates into a standard geographic projection (UTM, NAD 27 meters). Coordinate data are stored in the stations table both in their original form and in the standard projection. The standard projection was used for all mapping and analysis tasks. Stations were normalized for data grouping and comparison in the GIS using spatial buffers. For station counting purposes, all stations within two meters of each other were considered to be the same station and assigned a common buffer identifier. These identifiers are of long integer data type and were written to a field in the stations table by a GIS macro. For duplicate data identification across multiple datasets, a 100-meter buffer was also generated for each station. These buffer identifiers were used to identify stations for all data analysis tasks.

Station type information is used by data queries to group and select data. For example, a query may use station type as a selection criterion to retrieve all data associated with river sampling stations. Some source datasets contained a data field indicating sampling location type, such as river, soil boring, well, seep, etc. This data was translated to lookup codes during the import process and stored in the stations table and station type lookup table. With other datasets the station type may not be explicitly

stated in the source files, but may be readily inferred from text describing the station, sample media reported, or station X-Y location. For example, stations associated with groundwater samples were inferred to be wells. A location type table in the database stores sampling location type information for all stations. The table contains a record corresponding to every station record in the stations table. Location type codes are assigned in this table for each station after a dataset is imported. A code source field indicates whether the location type code was based on data in the original source file, or inferred based on other information such as station description or X-Y location.

Each station in the database was assigned a summary zone, or reach designation, in order to group data by spatial location within the drainage basin. Summary zones exist for distinct reaches of the Arkansas River, as well as its major tributaries and surrounding upland areas. Stations in a dataset were assigned to summary zones after the dataset was imported. Summary zone assignments were based primarily on station location, but other data such as textual descriptions of sampling locations were used to support zone assignments. This auxiliary data was given greater weight when station coordinates were of questionable quality.

Analytical result values are stored in the results table in the units of measure reported in the original data files. Records in the results table are linked to records in the parameters table. The parameters table stores the original parameter names and units as reported by the data provider. In order to readily query and compare values from different data sources a system of standard analyte names and units is necessary. For example, a source dataset may report values for 'Dissolved Zinc' in micrograms per liter. Another source dataset may report values for 'Zn, D' in milligrams per liter. To facilitate comparison of this data, the parameters table contains Standard Analyte, Standard Unit, and Multiplier data fields used to normalize data to common names and units. Records for the example given would be assigned a Standard Analyte of 'Zinc, Dissolved' and a Standard Unit of 'mg/L'. Records having original units of milligrams per liter would be given '1' as a multiplier, while records originally reported as micrograms per liter would be assigned a multiplier of '0.001'. The standard analyte and unit fields, when used in conjunction with the product of the original value and the multiplier, produce a normalized dataset. This approach is used by all saved queries that extract results information for comparison and analysis. A similar approach is used with sample depth data. Values are stored in their original units, and a standard unit and multiplier are used to normalize values.

Many datasets contained a variety of qualifiers associated with result values. During dataset pre-processing and import these qualifiers were put into one of three data fields depending on whether they were assigned by an analytical lab, data validator, or other or unknown source. After data were imported to the database each record was assigned an additional qualifier code. This code serves as a master

qualifier and groups all other qualifiers into several basic categories for data comparison and analysis purposes. Records were classified as either unqualified, non-detect, or rejected.

Analysis Sub-Datasets

Additional data processing steps were performed to prepare the data for use in a data analysis program. These steps include setting flags to indicate duplicate records (records with the same location, date, parameter, and analytical result, arising from obtaining partially overlapping datasets from multiple agencies or sources), statistical outliers, and assigning codes to indicate the appropriate analysis time period and flow regime (high flow, low flow) for each record. This additional processing and all subsequent data analysis were performed in a separate database file. This was done to keep file sizes manageable and to keep a clear distinction between raw data and the processed data used for statistical analysis and interpretations. The database is a raw data repository that preserves data as it was received from the data provider to the extent possible. The data analysis database file accesses the tables in the raw data repository through live links, and uses queries to create static copies of the appropriate data for charting and statistics purposes. It is in these copied tables that all interpretive flags and codes are assigned. A set of queries and Visual Basic programs in the data analysis file are used to refresh the analysis tables as needed. The refresh process deletes the current analysis table, queries the data repository and constructs a new analysis table containing the appropriate data, then runs a series of procedures that update the several “flag” fields in the table.

Analysis tables are created for each of the following media: Surface Water, Groundwater, Sediment, Lowland Soil, and Upland Soil. The queries that create these tables limit the data to include only complete and valid records for the media and parameters of interest. Records lacking coordinates are excluded, as are those describing field duplicate and lab QA/QC samples. Records flagged as rejected or otherwise invalid by the data validator are also excluded. The queries that create the analysis tables normalize all parameters to standardized parameter names, and convert numerical values to consistent units of measure so that they may be readily compared.

Duplicate Flags

The database is a compilation of numerous source datasets from numerous data providers. Many of these datasets originate from databases maintained by public agencies or from consultants working with these public datasets. Thus, there can be considerable overlap between datasets received from different data providers. Datasets were added to the database in their entirety, no effort was made to exclude records that were already included in the database from a previously added data source. This was

done to preserve datasets intact and avoid difficulties in identifying areas of overlap induced by rounding and other formatting performed by individual dataset providers. As a preferred alternative to identifying and excluding duplicated records prior to import, a Visual Basic program was developed to identify duplicated records during the analysis table refresh process.

Each analysis table contains a field that stores a duplicate flag for each record. This flag's value is initialized to '0' for all records at the start of the duplicate flagging program. Then the program creates a temporary table containing all unique combinations of normalized sample location, date, analyte, and value entries from the subject table. The program steps through the records in this temporary table. For each record in the temporary table the program retrieves all records from the subject table matching the record's normalized sample location, date, analyte, and value. If only one matching record is retrieved, the record's duplicate flag is left as 0 and the program moves on to the next record in the temporary table. If more than one matching record is retrieved, the program steps through the matching records and increments their duplicate flags from 1 to n (the number of duplicates). When the program has finished running, a duplicate-free recordset may be retrieved by selecting only records having a duplicate flag of 0 or 1.

Time Flags

For data analysis purposes, the time continuum is split into three periods corresponding to historical events influencing water flow and quality. The annual cycle is also split into periods of high and low flow. The dates of these period breaks are stored in a table in the analysis database (illustrated below). Each analysis data table contains data fields that store a period value and flow flag for each record. A series of procedures are run to update the period and flow flags based on each record's sample date when an analysis data table is refreshed.

Period Name	Start	End
High Flow	5/1/XX	8/14/XX
Low Flow	8/15/XX	4/30/XX
Period 1	1/1/1900	5/31/81
Period 2	6/1/81	1/31/92
Period 3	2/1/92	Present Date

Non-Detects

Records in the analysis tables having qualifiers indicating non-detect results were updated to one-half of the reported value (the reported value for non-detect records is typically the detection limit). This operation is performed by a Visual Basic procedure when the analysis tables are refreshed.

Outlier Flags

Outlier flagging is performed on the surface water data analysis table. Data records which are determined to be statistical outliers are flagged with an 'O' in the qualifier field. The outlier flagging procedure begins by resetting all qualifiers in the surface water data analysis table to the qualifier value stored in the main data repository (clears all outlier flags). The program then retrieves lists of the summary zone groups and analytes to be considered in the outlier test. Currently the program considers data from Arkansas River reaches 0-4 (grouped collectively as Ark R) and the Cal Gulch and Cal Gulch at Ark Riv zones (grouped together as Cal Gulch). Analytes considered include dissolved and total Cadmium, Copper, Lead, and Zinc, as well as Hardness. The program steps through all possible zone-analyte combinations. For each iteration, the procedure retrieves a recordset consisting of all data records for the current zone and analyte. It then calculates the mean and standard deviation of this recordset. The procedure then finds all records within the recordset having values greater than or equal to the mean plus four standard deviations (one-sided test), and updates the qualifier field to 'O' for these records. (It should be noted that data from all dates and flow periods are considered together in the outlier tests. The recordsets used in the outlier tests are defined solely by summary zone and analyte.)

Table Value Standards

Acute and chronic Colorado Table Value Standards (TVS) were calculated for dissolved cadmium, copper, lead, and zinc for selected river reaches. These calculations were performed by a Visual Basic program and the resulting values were stored in a table in the analysis database file. The program begins by creating lists of all analytes, river reaches, time periods, and flow periods for which standards are to be calculated. It then steps through all possible combinations of analyte, reach, time period, and flow period. During each iteration of the loop, the program calculates an average hardness value for use in the standards calculations, then calculates the acute and chronic standards based on the average hardness, and counts the number of records exceeding each of the standards for the current analyte-reach-time-flow scenario.

Average hardness values are calculated for each scenario using available hardness data applicable to the scenario's reach, time period, and flow period. Hardness, Total Hardness, and Calculated Hardness values were used, while Carbonate and Non-Carbonate Hardness values were not included. For TVS calculation purposes, average hardness values less than 25 mg/L or greater than 400 mg/L were reset to 25 and 400 mg/L, respectively.

Charting and Statistics

The data analysis database file includes a set of forms that provide a graphical user interface for selecting and charting data. This interface provides users with a means to select specific data subsets based on sample media, river reach, analyte, flow period, and time period criteria, and display charts and statistical summaries of the selected data. Two types of charts are available in the program. One is a time-series chart displaying a parameter's values for a single reach over time. The other allows comparison between reaches by displaying a parameter's minimum, maximum, and average values for multiple reaches.

A maximum series-axis value is specified in the database for each parameter that is plotted on the time-series charts. These values are used by the charting program to limit the scale of the vertical axis so that all charts produced for a given parameter have the same scale and are readily comparable. Data points that exceed the chart limit are displayed in a table below the chart.

There are several display options for the time-series charts that may be toggled on and off using check boxes on the user interface. Data points representing non-detect analysis results may be displayed with a different symbol than results greater than the detection limit. Acute and chronic Table Value Standards may be displayed on the chart as horizontal lines at the standard levels. This option is available when the 'High Flow' and/or 'Low Flow' options are selected, but is disabled when the 'All Flow' option is chosen because Table Value Standards only exist for the high and low flow divisions of the annual flow cycle. An option is available to display period breaks on the chart when the 'All Periods' sample date option is chosen. Period breaks appear on the charts as vertical lines marking the division points between the three data analysis periods.

**Data Sources for the Upper Arkansas Site Characterization Database
Record Count by Media and Data Source**

Source Query: J:\010004\Task 2 - Data Acquisition\DataAnalysis\LNRD_DataAnalysis.mdb - qryDataSrc_Report

LNRD #	SourceDescription	Source Organization	Title	Author	Publish Date	FileName	Date Entered	Min Date	Max Date	Total Result Count	Media										
											GW - Groundwater	MS-Mine Solid Waste	PW- Pore Water	SD- Sediment	SL- Soil	SW- Surface Water	TS- Tissue	VG- Vegetation	W- Unspecified Water		
LNRD-001	Surface Water Quality Data for the Arkansas River	USFWS	Arkansas River Database-1994	USFWS	07/01/94	samples.data	12/14/99	01/01/01	01/21/94	118477											118477
LNRD-006	Cal Gulch Water Quality Data	ISSI	Cal Gulch WQ Data	ISSI	09/29/99	mfg.mdb	01/19/00	11/11/11	11/20/98	19584	2886										16698
LNRD-010	Surface Water Quality Data from CSU-AEHS (1968-1996)	CSU-AEHS	Water Quality data (1968-1996)	Clements (CSU)	11/05/00	csuarkwq.mdb	03/07/00	11/08/89	10/13/99	1664											1664
LNRD-011	Colorado River Watch Data - Surface Water	CDOW	CDOW-RiverWatch data	CDOW	01/24/00	arkansas.dbf	02/09/00	06/26/22	04/11/99	44174											44174
LNRD-015	Division of Wildlife Water Quality Data	CSU - Department of Fishery and Wildlife Biology	DOW WQ and Discharge Data	Clements (CSU)	01/13/99	H2O.CDOW.data.wb3	03/23/00	09/17/96	09/02/99	4162											4162
LNRD-016	Soil and Vegetation -Plant Cover, Production, Tissue & Soil Metal Concentrations	CSU	1986/1987 Soil and Vegetation Metals Data	Keammerer		Soil and Vegetation Data.xls	03/03/00	08/15/87	08/15/87	200											200
LNRD-017	1996 Upper Arkansas Soil Data	URS Operating Services (EPA)	1996 Upper Arkansas Soil Data	EPA/URS	02/10/97	96soildata.mdb	05/22/00	09/12/96	12/10/96	6938	6938										
LNRD-020	1997 Upper Arkansas Soils Data	URS Operating Services (EPA)	1997 Upper Arkansas Soil Data-URS	EPA/URS	01/16/98	97soildata.mdb	05/22/00	10/17/97	10/17/97	3429	3429										
LNRD-021	Upper Arkansas 1998 Monitoring Well Data	URS Operating Services (EPA)	Upper Arkansas 1998 Monitoring Well Data	EPA/URS, Walton-Day (USGS)		98 Monitoring Well Data.mdb	05/04/00	06/09/98	11/09/98	784	768										16
LNRD-023	Upper Arkansas 1999 Monitoring Well Data	URS Operating Services (EPA)	Upper Arkansas 1999 Monitoring Well Data	EPA/URS		1999wells.mdb; T-Locations-2.mdb	05/04/00	03/22/99	10/29/99	2409	2361										48
LNRD-024	NURE Hydrogeochemical and Stream Sediment Data	USGS	NURE Stream Sediment Data	USGS		http://greenwood.cr.usgs.gov/pub/openfile-reports/ofr-97-0492/state/nure_co.htm	03/22/00	04/07/76	09/19/79	18169											18169
LNRD-025	USGS Flow data and field parameters	USGS	Flow and field parameter data	USGS			06/13/00	04/01/10	12/19/99	147897											147897
LNRD-030	1994 & 1995 REMAP data	EPA	1994 & 1995 REMAP data	EPA		s_rockies_remap.mdb	06/14/00	09/12/94	09/05/95	141											42
LNRD-031	STORET groundwater and surface water data	EPA	STORET data	EPA	02/11/00		02/15/00	06/16/06	03/26/98	203157	8465										319
LNRD-033	Seppi Ranch Soils - Swyers Data	Colorado Mountain College	Seppi Ranch Soils - Swyers Data	Swyers (CMC)	04/26/90		05/25/00	10/01/89	10/01/89	148											148
LNRD-036	Levy Thesis Data - Plant and Soils	CSU	Metal Contamination in Soils and Plant Near Leadville	David Levy (CSU)	06/01/89		04/09/01	06/01/88	06/01/88	915											795
LNRD-038	Seppi Ranch Soils - Colby Data	Colorado Mountain College	Seppi Ranch Soils - Colby Data	Colby (CMC)	04/25/89		05/22/00	10/01/98	10/01/98	100											100
LNRD-039	Groundwater & Surface Water Data -Seppi Ranch	WWL	WW&L Groundwater & Surface Water Data	WWL	02/02/90		06/22/00	10/25/89	11/02/89	184	37										147
LNRD-041	Selected sediment and surface water data for the upper Arkansas River basin, Colorado, 1988-89	USGS	Selected hydrologic data for the upper Arkansas River basin, Colorado, 1988-89	Kimball, Callender and Axtmann (USGS)	03/01/95		04/05/01	10/01/88	05/01/89	879											417
LNRD-044	Geochemical and Lead Isotope data for stream and lake sediments	USGS	Geochemical and Lead Isotope data for stream and lake sediments	S.E. Church (USGS)	01/01/93		08/14/00	07/01/93	07/01/93	680	8										304
LNRD-049	Total Zinc in 3 SW station, 1992-1997	BOR, Denver CO	Relationships Between Metals and Hyporheic Invertebrate Community Structure	Nelson and Richard (BOR)	03/13/99		03/06/01	07/07/92	10/07/97	72											72

Table C₁-1

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LNRD #	SourceDescription	Source Organization	Title	Author	Publish Date	FileName	Date Entered	Min Date	Max Date	Total Result Count	GW - Groundwater	MS-Mine Solid Waste	PW- Pore Water	SD- Sediment	SL- Soil	SW- Surface Water	TS- Tissue	VG- Vegetation	W- Unspecified Water
LNRD-050	USGS 1992-96 Soil, SW & GW data	USGS	Effects of Fluvial Tailings on Soils and Surface and Groundwater - Upper Arkansas River, Colorado, 1992-96	Katie Walton-Day et al. (USGS)	01/01/00	WRIR99-4273.mdb	08/02/00	09/01/92	09/01/92	2376	1372				52	952			
LNRD-051	Resurrection Database - Groundwater, Pore Water, Sediment and Surface Water Data	Shepherd-Miller	Resurrection Database	Shepherd-Miller		dbforMFG.mdb	07/31/00	04/26/94	09/16/99	70124	8021		288	77		61738			
LNRD-052	OU4 Cal Gulch Eco RA	S. M. Stoller	Screening-Level Ecological Risk Assessment OU4 California Gulch Superfund Site	S.M. Stoller	12/10/96			02/27/01	01/07/94	10/04/95	3720					1858		1862	
LNRD-054	USFWS Sediment Samples (1998)	USFWS	USFWS Sediment Samples	USFWS	05/01/98	SEDIMENT - pooled.xls	04/25/01	07/30/96	05/14/98	2070			2070						
LNRD-055	CDOW/BOR/CSU 1995-1999 WQ Data from CDOW	CDOW	CDOW/BOR/CSU 1995-1999 WQ Data from CDOW	Davies, Clements, et al.	11/01/01	Report.dbf	06/15/01	06/05/96	10/01/99	11641						11641			
LNRD-057	BLM July 2000 Soil/Sediment Data (2nd import, private land data)	BLM	BLM July 2000 Soil/Sediment Data	BLM				03/07/01	07/06/00	08/02/00	1088				1088				
LNRD-058	2000 Monitoring Well Data	URS Operating Services (EPA)	Upper Arkansas 2000 Monitoring Well Data	EPA/URS		2000 Monitoring Well Data.mdb	12/06/00	06/15/00	08/30/00	2032	2032								
LNRD-060	2000 spring/storm SW data, OU6/Cal Gulch, collected by Colorado Mountain College	EPA - Mike Holmes	2000 Spring/Storm Surface Water Data - OU6/Cal Gulch	CDM Federal	01/18/00	tblChemRes cal gul ou 6TEMP.xls, tblChemResTEMP.xls	04/05/01	05/04/00	08/21/00	3341						3341			
LNRD-061	Surface soils data - 0 to 2 inches	Walsh	Surface soils data - 0 to 2 inches	Walsh	03/15/00	mfgsoils.mdb	04/24/01	05/29/86	09/08/97	4087					4087				
LNRD-062	Ecology & Environment, Surface and Groundwater data. Cal Gulch/Arkansas River area (1983)	Ecology & Environment, Inc.	Surface and Groundwater data, Cal Gulch/Arkansas River area	Ecology & Environment, Inc.	06/20/83		06/18/01	02/15/83	02/21/83	362	226					136			
LNRD-063	1995-1996 Sediment data from CSU	CSU	1995-1996 Sediment data from CSU	Clements (CSU)		sediment.Harrah.xls	06/19/01	08/10/95	08/23/96	90			90						
LNRD-064	USGS Semi-Annual Water Level Data	USGS	USGS Upper Arkansas Basin Semi-Annual Well Network (Water Levels 1963-2000)	Mike Haley (USGS)	06/21/01	table.upark	06/26/01	08/05/63	11/03/00	1234	1234								
LNRD-065	GW data for well at Dr. Smiths residence	URS/EPA	Preliminary EPA GW data for well at Dr. Smiths residence	EPA/URS		DocsWellCombine d.xls	07/25/01	05/07/01	05/07/01	30	30								
LNRD-068	CDPHE GW Data (1984-2001)	CDPHE	CDPHE GW Data (1984-2001)	CDPHE	08/24/01	Metals.dbf, Colo_src.dbf	09/04/01	07/23/84	03/28/01	1003	1003								

Table C₁-1

Arkansas River Outliers for Surface Water

Summary/Zone	Waterbody	Period	Standard/Analyte	Date	Flow/Flag	Standard/Value	Standard/Unit	ResultID	n	Mean	StdDev	Limit	LnrdNum
Ark R0	Ark R	Period 1	Lead, Total	11/13/1970	L	0.4	mg/L	106309	934	0.022	0.077	0.33	LNRD-001
Ark R0	Ark R	Period 3	Copper, Dissolved	5/3/1995	H	0.056	mg/L	143001	913	0.005	0.008	0.037	LNRD-006
Ark R1	Ark R	Period 2	Cadmium, Total	5/8/1991	H	0.043	mg/L	394197	1086	0.003	0.01	0.043	LNRD-010
Ark R1	Ark R	Period 2	Cadmium, Total	9/11/1991	L	0.251	mg/L	144074	1086	0.003	0.01	0.043	LNRD-006
Ark R1	Ark R	Period 2	Cadmium, Total	9/12/1991	L	0.0852	mg/L	144080	1086	0.003	0.01	0.043	LNRD-006
Ark R1	Ark R	Period 2	Copper, Dissolved	11/19/1986	L	0.04	mg/L	385142	913	0.005	0.008	0.037	LNRD-031
Ark R1	Ark R	Period 2	Copper, Total	3/25/1985	L	0.189	mg/L	132687	1033	0.012	0.032	0.14	LNRD-006
Ark R1	Ark R	Period 2	Copper, Total	5/8/1991	H	0.363	mg/L	394198	1033	0.012	0.032	0.14	LNRD-010
Ark R1	Ark R	Period 2	Copper, Total	9/11/1991	L	0.687	mg/L	144076	1033	0.012	0.032	0.14	LNRD-006
Ark R1	Ark R	Period 2	Copper, Total	9/12/1991	L	0.333	mg/L	144082	1033	0.012	0.032	0.14	LNRD-006
Ark R1	Ark R	Period 2	Lead, Total	3/25/1985	L	0.439	mg/L	132689	934	0.022	0.077	0.33	LNRD-006
Ark R1	Ark R	Period 2	Lead, Total	9/11/1991	L	1.2	mg/L	144077	934	0.022	0.077	0.33	LNRD-006
Ark R1	Ark R	Period 2	Lead, Total	9/12/1991	L	1.09	mg/L	144083	934	0.022	0.077	0.33	LNRD-006
Ark R1	Ark R	Period 2	Zinc, Dissolved	2/16/1983	L	2.9	mg/L	747057	960	0.296	0.532	2.424	LNRD-062
Ark R1	Ark R	Period 2	Zinc, Dissolved	3/25/1985	L	2.97	mg/L	132690	960	0.296	0.532	2.424	LNRD-006
Ark R1	Ark R	Period 2	Zinc, Dissolved	11/19/1986	L	2.8	mg/L	385147	960	0.296	0.532	2.424	LNRD-031
Ark R1	Ark R	Period 2	Zinc, Dissolved	5/26/1987	H	2.43	mg/L	132641	960	0.296	0.532	2.424	LNRD-006
Ark R1	Ark R	Period 2	Zinc, Total	5/8/1991	H	8.624	mg/L	394199	1132	0.574	1.735	7.514	LNRD-010
Ark R1	Ark R	Period 2	Zinc, Total	6/27/1991	H	20.7	mg/L	168017	1132	0.574	1.735	7.514	LNRD-011
Ark R1	Ark R	Period 2	Zinc, Total	9/11/1991	L	37.9	mg/L	144079	1132	0.574	1.735	7.514	LNRD-006
Ark R1	Ark R	Period 2	Zinc, Total	9/12/1991	L	15.3	mg/L	144085	1132	0.574	1.735	7.514	LNRD-006
Ark R1	Ark R	Period 3	Cadmium, Dissolved	5/6/1993	H	0.03	mg/L	149774	947	0.002	0.004	0.018	LNRD-011
Ark R1	Ark R	Period 3	Cadmium, Dissolved	5/17/1993	H	0.029	mg/L	149841	947	0.002	0.004	0.018	LNRD-011
Ark R1	Ark R	Period 3	Cadmium, Dissolved	5/22/1993	H	0.017	mg/L	149868	947	0.002	0.004	0.018	LNRD-011
Ark R1	Ark R	Period 3	Cadmium, Dissolved	5/24/1993	H	0.017	mg/L	149885	947	0.002	0.004	0.018	LNRD-011
Ark R1	Ark R	Period 3	Cadmium, Dissolved	5/6/1998	H	0.056	mg/L	394326	947	0.002	0.004	0.018	LNRD-010
Ark R1	Ark R	Period 3	Cadmium, Dissolved	5/4/2000	H	0.054	mg/L	722707	947	0.002	0.004	0.018	LNRD-060
Ark R1	Ark R	Period 3	Cadmium, Dissolved	5/11/2000	H	0.027	mg/L	722659	947	0.002	0.004	0.018	LNRD-060
Ark R1	Ark R	Period 3	Cadmium, Total	5/6/1998	H	0.056	mg/L	394327	1086	0.003	0.01	0.043	LNRD-010
Ark R1	Ark R	Period 3	Cadmium, Total	5/4/2000	H	0.061	mg/L	722708	1086	0.003	0.01	0.043	LNRD-060
Ark R1	Ark R	Period 3	Copper, Dissolved	5/6/1993	H	0.068	mg/L	149776	913	0.005	0.008	0.037	LNRD-011
Ark R1	Ark R	Period 3	Copper, Dissolved	5/17/1993	H	0.067	mg/L	149843	913	0.005	0.008	0.037	LNRD-011
Ark R1	Ark R	Period 3	Copper, Total	5/6/1993	H	0.156	mg/L	149777	1033	0.012	0.032	0.14	LNRD-011
Ark R1	Ark R	Period 3	Copper, Total	5/11/1993	H	0.155	mg/L	149809	1033	0.012	0.032	0.14	LNRD-011
Ark R1	Ark R	Period 3	Copper, Total	5/15/1993	H	0.145	mg/L	149831	1033	0.012	0.032	0.14	LNRD-011
Ark R1	Ark R	Period 3	Hardness	5/6/1993	H	414	mg/L	149788	845	88.374	45.144	268.95	LNRD-011
Ark R1	Ark R	Period 3	Hardness	9/17/1996	L	276	mg/L	465199	845	88.374	45.144	268.95	LNRD-015
Ark R1	Ark R	Period 3	Hardness	11/20/1998	L	334	mg/L	465341	845	88.374	45.144	268.95	LNRD-015
Ark R1	Ark R	Period 3	Hardness	2/10/1999	L	292.8	mg/L	465579	845	88.374	45.144	268.95	LNRD-015
Ark R1	Ark R	Period 3	Lead, Dissolved	5/11/2000	H	0.78	mg/L	722667	837	0.004	0.034	0.14	LNRD-060
Ark R1	Ark R	Period 3	Lead, Total	5/15/1993	H	0.347	mg/L	149834	934	0.022	0.077	0.33	LNRD-011
Ark R1	Ark R	Period 3	Lead, Total	5/11/2000	H	0.59	mg/L	722668	934	0.022	0.077	0.33	LNRD-060
Ark R1	Ark R	Period 3	Zinc, Dissolved	5/1/1993	H	4.9	mg/L	149772	960	0.296	0.532	2.424	LNRD-011
Ark R1	Ark R	Period 3	Zinc, Dissolved	5/6/1993	H	7.45	mg/L	149789	960	0.296	0.532	2.424	LNRD-011
Ark R1	Ark R	Period 3	Zinc, Dissolved	5/9/1993	H	3.45	mg/L	149806	960	0.296	0.532	2.424	LNRD-011
Ark R1	Ark R	Period 3	Zinc, Dissolved	5/17/1993	H	4.76	mg/L	149855	960	0.296	0.532	2.424	LNRD-011
Ark R1	Ark R	Period 3	Zinc, Dissolved	5/22/1993	H	3.05	mg/L	149883	960	0.296	0.532	2.424	LNRD-011
Ark R1	Ark R	Period 3	Zinc, Dissolved	5/24/1993	H	2.77	mg/L	149900	960	0.296	0.532	2.424	LNRD-011
Ark R1	Ark R	Period 3	Zinc, Dissolved	5/8/1996	H	2.71	mg/L	394297	960	0.296	0.532	2.424	LNRD-010
Ark R1	Ark R	Period 3	Zinc, Dissolved	3/13/1997	L	2.58	mg/L	150672	960	0.296	0.532	2.424	LNRD-011
Ark R1	Ark R	Period 3	Zinc, Dissolved	4/1/1997	L	2.85	mg/L	150689	960	0.296	0.532	2.424	LNRD-011
Ark R1	Ark R	Period 3	Zinc, Dissolved	4/22/1997	L	2.51	mg/L	150706	960	0.296	0.532	2.424	LNRD-011
Ark R1	Ark R	Period 3	Zinc, Total	5/6/1993	H	7.8	mg/L	149790	1132	0.574	1.735	7.514	LNRD-011
Ark R2	Ark R	Period 1	Hardness	5/18/1966	H	476.05883	mg/L	226799	845	88.374	45.144	268.95	LNRD-031
Ark R2	Ark R	Period 1	Hardness	9/13/1966	L	421.64868	mg/L	226810	845	88.374	45.144	268.95	LNRD-031
Ark R2	Ark R	Period 1	Hardness	1/18/1967	L	300.08178	mg/L	226821	845	88.374	45.144	268.95	LNRD-031
Ark R2	Ark R	Period 2	Cadmium, Total	9/11/1991	L	0.0964	mg/L	125305	1086	0.003	0.01	0.043	LNRD-006
Ark R2	Ark R	Period 2	Cadmium, Total	9/11/1991	L	0.0587	mg/L	125311	1086	0.003	0.01	0.043	LNRD-006
Ark R2	Ark R	Period 2	Copper, Total	9/11/1991	L	0.254	mg/L	125307	1033	0.012	0.032	0.14	LNRD-006
Ark R2	Ark R	Period 2	Copper, Total	9/11/1991	L	0.213	mg/L	125313	1033	0.012	0.032	0.14	LNRD-006
Ark R2	Ark R	Period 2	Lead, Total	9/11/1991	L	0.813	mg/L	125308	934	0.022	0.077	0.33	LNRD-006
Ark R2	Ark R	Period 2	Lead, Total	9/11/1991	L	0.452	mg/L	125314	934	0.022	0.077	0.33	LNRD-006
Ark R2	Ark R	Period 2	Zinc, Total	9/11/1991	L	23.4	mg/L	125310	1132	0.574	1.735	7.514	LNRD-006
Ark R2	Ark R	Period 2	Zinc, Total	9/11/1991	L	11.7	mg/L	125316	1132	0.574	1.735	7.514	LNRD-006
Ark R2	Ark R	Period 3	Copper, Dissolved	8/30/1995	L	0.078	mg/L	125340	913	0.005	0.008	0.037	LNRD-006
Ark R2	Ark R	Period 3	Hardness	4/8/1999	L	314	mg/L	466106	845	88.374	45.144	268.95	LNRD-015
Ark R3	Ark R	Period 3	Cadmium, Dissolved	5/6/1998	H	0.03	mg/L	394497	947	0.002	0.004	0.018	LNRD-010
Ark Riv nr Cal Gul (AR2)	Ark R	Period 3	Cadmium, Dissolved	5/11/2000	H	0.026	mg/L	722609	947	0.002	0.004	0.018	LNRD-060
Ark Riv nr Cal Gul (AR2)	Ark R	Period 3	Lead, Dissolved	5/11/2000	H	0.57	mg/L	722617	837	0.004	0.034	0.14	LNRD-060
Ark Riv nr Cal Gul (AR2)	Ark R	Period 3	Lead, Total	5/11/2000	H	0.65	mg/L	722618	934	0.022	0.077	0.33	LNRD-060
Ark Riv nr Cal Gul (AR2)	Ark R	Period 3	Zinc, Total	8/21/1998	L	7.654	mg/L	464917	1132	0.574	1.735	7.514	LNRD-015

Table C₁₋₂

California Gulch Outliers for Surface Water

SummaryZone	Waterbody	Period	StandardAnalyte	Date	FlowFlag	StandardValue	StandardUnit	ResultID	n	Mean	StdDev	Limit	LrndNum
Cal Gulch	Oregon Gl	Period 2	Zinc, Dissolved	6/12/1991	H	644	mg/L	137765	835	29.08	90.11	389.52	LNRD-006
Cal Gulch	Oregon Gl	Period 2	Zinc, Total	5/2/1991	H	1110	mg/L	138019	822	32.421	96.319	417.697	LNRD-006
Cal Gulch	Oregon Gl	Period 2	Zinc, Total	6/12/1991	H	634	mg/L	137766	822	32.421	96.319	417.697	LNRD-006
Cal Gulch	Oregon Gl	Period 2	Zinc, Total	7/24/1991	H	559	mg/L	137775	822	32.421	96.319	417.697	LNRD-006
Cal Gulch	Cal Gulch	Period 3	Cadmium, Dissolved	5/8/1996	H	37.9	mg/L	126938	834	0.149	1.321	5.433	LNRD-006
Cal Gulch	Nugget Gl	Period 3	Cadmium, Total	6/15/1995	H	4	mg/L	682225	807	0.115	0.223	1.007	LNRD-051
Cal Gulch	Runoff	Period 3	Cadmium, Total	6/16/1995	H	1.2	mg/L	650403	807	0.115	0.223	1.007	LNRD-051
Cal Gulch	Runoff	Period 3	Cadmium, Total	5/15/1997	H	1.02	mg/L	682882	807	0.115	0.223	1.007	LNRD-051
Cal Gulch	Oregon Gl	Period 3	Cadmium, Total	8/29/1997	L	1.1	mg/L	137961	807	0.115	0.223	1.007	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Cadmium, Total	9/30/1997	L	1.3	mg/L	137971	807	0.115	0.223	1.007	LNRD-006
Cal Gulch	Parshall Flume	Period 3	Cadmium, Total	5/11/2000	H	1.06	mg/L	725728	807	0.115	0.223	1.007	LNRD-060
Cal Gulch	Stray Horse Gl	Period 3	Cadmium, Total	5/11/2000	H	1.21	mg/L	725678	807	0.115	0.223	1.007	LNRD-060
Cal Gulch	Parshall Flume	Period 3	Cadmium, Total	5/11/2000	H	1.07	mg/L	725778	807	0.115	0.223	1.007	LNRD-060
Cal Gulch	Nugget Gl	Period 3	Copper, Dissolved	6/15/1995	H	12	mg/L	682231	844	0.743	2.532	10.871	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Dissolved	6/26/1995	H	29	mg/L	681664	844	0.743	2.532	10.871	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Dissolved	6/6/1996	H	19.5	mg/L	681793	844	0.743	2.532	10.871	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Dissolved	5/15/1997	H	11.1	mg/L	682317	844	0.743	2.532	10.871	LNRD-051
Cal Gulch	Runoff	Period 3	Copper, Dissolved	5/15/1997	H	42.5	mg/L	683457	844	0.743	2.532	10.871	LNRD-051
Cal Gulch	Runoff	Period 3	Copper, Dissolved	6/3/1997	H	21.5	mg/L	683504	844	0.743	2.532	10.871	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Dissolved	6/3/1997	H	16	mg/L	681973	844	0.743	2.532	10.871	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Dissolved	6/3/1997	H	15.5	mg/L	682364	844	0.743	2.532	10.871	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Dissolved	6/4/1997	H	18.3	mg/L	682016	844	0.743	2.532	10.871	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Total	6/15/1995	H	12.8	mg/L	682232	822	0.83	2.508	10.862	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Total	6/26/1995	H	28	mg/L	681665	822	0.83	2.508	10.862	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Total	6/6/1996	H	18.7	mg/L	681794	822	0.83	2.508	10.862	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Total	5/15/1997	H	11.1	mg/L	682318	822	0.83	2.508	10.862	LNRD-051
Cal Gulch	Runoff	Period 3	Copper, Total	5/15/1997	H	38.7	mg/L	683458	822	0.83	2.508	10.862	LNRD-051
Cal Gulch	Runoff	Period 3	Copper, Total	6/3/1997	H	20.3	mg/L	683505	822	0.83	2.508	10.862	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Total	6/3/1997	H	16.6	mg/L	682365	822	0.83	2.508	10.862	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Total	6/3/1997	H	16.7	mg/L	681974	822	0.83	2.508	10.862	LNRD-051
Cal Gulch	Nugget Gl	Period 3	Copper, Total	6/4/1997	H	17.8	mg/L	682017	822	0.83	2.508	10.862	LNRD-051
Cal Gulch	Oregon Gl	Period 3	Hardness	5/4/1995	H	9820	mg/L as CaCO3	685543	619	594.1	1272.36	5683.547	LNRD-051
Cal Gulch	Oregon Gl	Period 3	Hardness	7/26/1995	H	8610	mg/L as CaCO3	685844	619	594.1	1272.36	5683.547	LNRD-051
Cal Gulch	Oregon Gl	Period 3	Hardness	7/11/1996	H	6420	mg/L as CaCO3	686059	619	594.1	1272.36	5683.547	LNRD-051
Cal Gulch	Oregon Gl	Period 3	Hardness	4/30/1997	L	7130	mg/L as CaCO3	686102	619	594.1	1272.36	5683.547	LNRD-051
Cal Gulch	Oregon Gl	Period 3	Hardness	6/26/1997	H	12400	mg/L as CaCO3	686278	619	594.1	1272.36	5683.547	LNRD-051
Cal Gulch	Oregon Gl	Period 3	Hardness	8/29/1997	L	11400	mg/L as CaCO3	686321	619	594.1	1272.36	5683.547	LNRD-051
Cal Gulch	Oregon Gl	Period 3	Hardness	9/30/1997	L	12000	mg/L as CaCO3	686364	619	594.1	1272.36	5683.547	LNRD-051
Cal Gulch	Oregon Gl	Period 3	Hardness	5/28/1998	H	7960	mg/L as CaCO3	686406	619	594.1	1272.36	5683.547	LNRD-051
Cal Gulch	Oregon Gl	Period 3	Hardness	9/23/1998	L	14000	mg/L as CaCO3	686449	619	594.1	1272.36	5683.547	LNRD-051
Cal Gulch	Oregon Gl	Period 3	Lead, Dissolved	6/6/1996	H	697	mg/L	137893	799	1.995	34.31	139.235	LNRD-006
Cal Gulch	Cal Gulch	Period 3	Lead, Dissolved	4/30/1997	L	670	mg/L	128965	799	1.995	34.31	139.235	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Lead, Total	6/6/1996	H	709	mg/L	137895	807	2.927	35.471	144.811	LNRD-006
Cal Gulch	Cal Gulch	Period 3	Lead, Total	4/30/1997	L	700	mg/L	128967	807	2.927	35.471	144.811	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Dissolved	5/4/1995	H	712	mg/L	137784	835	29.08	90.11	389.52	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Dissolved	7/26/1995	H	596	mg/L	137854	835	29.08	90.11	389.52	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Dissolved	7/11/1996	H	438	mg/L	137908	835	29.08	90.11	389.52	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Dissolved	4/30/1997	L	542	mg/L	137918	835	29.08	90.11	389.52	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Dissolved	6/26/1997	H	920	mg/L	137958	835	29.08	90.11	389.52	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Dissolved	8/29/1997	L	917	mg/L	137968	835	29.08	90.11	389.52	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Dissolved	9/30/1997	L	951	mg/L	137978	835	29.08	90.11	389.52	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Dissolved	5/28/1998	H	638	mg/L	137998	835	29.08	90.11	389.52	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Dissolved	9/23/1998	L	1170	mg/L	138008	835	29.08	90.11	389.52	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Total	5/4/1995	H	717	mg/L	137785	822	32.421	96.319	417.697	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Total	7/26/1995	H	590	mg/L	137855	822	32.421	96.319	417.697	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Total	7/11/1996	H	482	mg/L	137909	822	32.421	96.319	417.697	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Total	4/30/1997	L	504	mg/L	137919	822	32.421	96.319	417.697	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Total	6/26/1997	H	850	mg/L	137959	822	32.421	96.319	417.697	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Total	8/29/1997	L	817	mg/L	137969	822	32.421	96.319	417.697	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Total	9/30/1997	L	901	mg/L	137979	822	32.421	96.319	417.697	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Total	5/28/1998	H	612	mg/L	137999	822	32.421	96.319	417.697	LNRD-006
Cal Gulch	Oregon Gl	Period 3	Zinc, Total	9/23/1998	L	1100	mg/L	138009	822	32.421	96.319	417.697	LNRD-006
Cal Gulch-At Ark Riv	Cal Gulch	Period 2	Cadmium, Total	9/11/1991	L	1.53	mg/L	130911	807	0.115	0.223	1.007	LNRD-006

Table C₁₋₂

Relationships for LNRD_Db
 Thursday, September 06, 2001

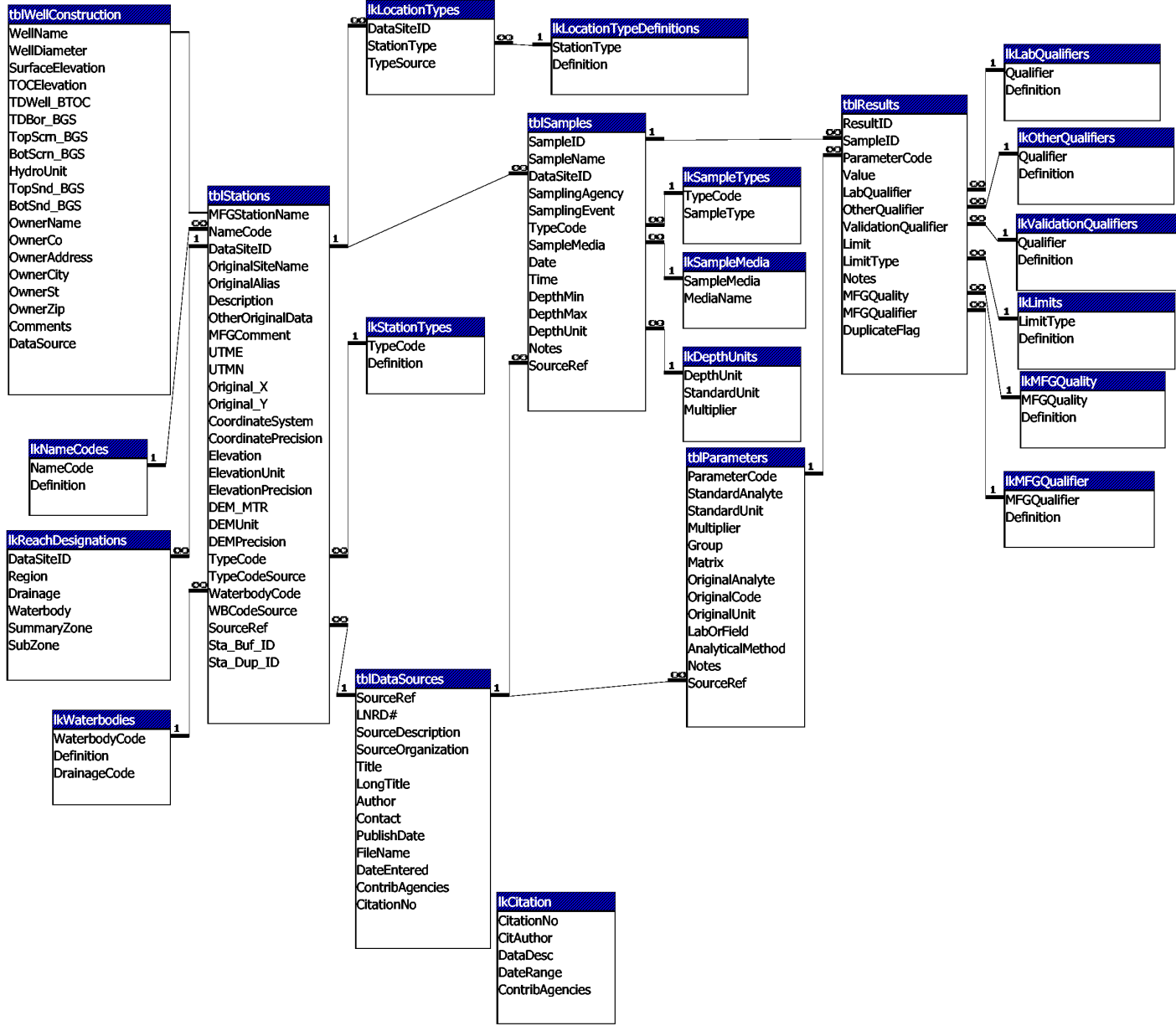


Table C₁-3

APPENDIX C₂
Biological Data
Other Electronic Datasets

Biological Data
(Other Electronic Datasets)

- 1) Chadwick and Associates, Inc. 1998. Leadville Aquatic Biological Data. (UARB-00466) CDROM. Worksheets/spreadsheets.
- 2) Clements, Will. 2000. Tables and Figures, CDOW Fish Data 1994-1999. CDROM. Spreadsheet.
- 3) Keammerer (via Redente). 2000. 1986/1987 Soil and Vegetation Metals Data. (LNRD-016) CDROM. Spreadsheet.
- 4) Archuleta, A. 2001. USFWS Dipper Data.
- 5) Archuleta, A. 2001. USFWS; Small mammal data compiled by USFWS from SM Stoller Corporation 1996 Screening Level Ecological Risk Assessment, Operable Unit No. 4; and Woodward Clyde 1993 Terrestrial Ecosystem Evaluation Report.

APPENDIX C₃
Station Lists of Sampling Locations

Station Lists

Groundwater sampling locations							
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DataSiteID	Sta_Buf_ID	
GW	Ark R0	LNRD-031	391455106211400	SC00908020DCB	2492	616	
GW	Ark R0	LNRD-031	391501106195000	SC00908021CAA	2493	558	
GW	Ark R0	LNRD-062	GW205	Sample from a well on undeveloped land bordering the east side of the Arkansas River, approximately .5 miles south of the East Fork confluence.	22193	452	
GW	Ark R1	LNRD-068	133100-001	Lake Fork MHP, Blend Tank	22295	1664	
GW	Ark R1	LNRD-068	133400-001	Mt Elbert TP, Well #1	22300	1780	
GW	Ark R1	LNRD-031	391240106202700	SC01008004BCD	2476	1760	
GW	Ark R1	LNRD-031	391257106203800	SC00908033CCD	2477	1718	
GW	Ark R1	LNRD-031	391310106211700	SC00908032DAC	2478	1659	
GW	Ark R1	LNRD-064	391313106211001		22264	1635	
GW	Ark R1	LNRD-006	NW-14	Arkansas River at trailer park	555	1655	
GW	Ark R1	LNRD-039	NW-14		20346	1668	
GW	Ark R1	LNRD-051	NW-14	Groundwater monitoring well	20468	1655	
GW	Ark R1	LNRD-021	UMW01		19954	1767	
GW	Ark R1	LNRD-023	UMW01		19967	1767	
GW	Ark R1	LNRD-058	UMW01		20665	1767	
GW	Ark R1	LNRD-021	UMW02		19955	1800	
GW	Ark R1	LNRD-023	UMW02		19968	1800	
GW	Ark R1	LNRD-058	UMW02		20666	1800	
GW	Ark R1	LNRD-021	UMW03		19956	1831	
GW	Ark R1	LNRD-023	UMW03		19969	1831	
GW	Ark R1	LNRD-058	UMW03		20667	1831	
GW	Ark R1	LNRD-021	UMW04		19957	1844	
GW	Ark R1	LNRD-023	UMW04		19970	1844	
GW	Ark R1	LNRD-058	UMW04		20668	1844	
GW	Ark R1	LNRD-021	UMW05		19958	1848	
GW	Ark R1	LNRD-023	UMW05		19971	1848	
GW	Ark R1	LNRD-058	UMW05		20669	1848	
GW	Ark R1	LNRD-023	UMW13		19979	1793	
GW	Ark R1	LNRD-058	UMW13		20677	1793	
GW	Ark R1	LNRD-023	UMW14A		19980	1832	
GW	Ark R1	LNRD-058	UMW14A		20678	1832	
GW	Ark R1	LNRD-023	UMW14B		19981	1832	
GW	Ark R1	LNRD-058	UMW14B		20679	1832	
GW	Ark R1	LNRD-023	UMW15A		19982	1855	
GW	Ark R1	LNRD-058	UMW15A		20680	1855	
GW	Ark R1	LNRD-023	UMW15B		19983	1855	
GW	Ark R1	LNRD-058	UMW15B		20681	1855	
GW	Ark R2	LNRD-064	391137106210102		22263	1929	
GW	Ark R2	LNRD-031	391138106210500	SC01008008ADC	2472	1929	
GW	Ark R2	LNRD-031	391153106201200	SC01008009ABC	2473	1911	
GW	Ark R2	LNRD-062	GW201	Sample collected from a spring pool north of a ranch on County Road 44, south of Leadville.	22189	1928	
GW	Ark R2	LNRD-062	GW202	Sample collected from a spring pool north of a ranch on County Road 44, south of Leadville.	22190	1930	
GW	Ark R2	LNRD-062	GW203	Sample from the kitchen tap in a residence, on County Road 44, south of Leadville.	22191	1929	
GW	Ark R2	LNRD-065	ST1GW		22266	1929	
GW	Ark R2	LNRD-021	UMW06		19959	1877	
GW	Ark R2	LNRD-023	UMW06		19972	1877	
GW	Ark R2	LNRD-058	UMW06		20670	1877	
GW	Ark R2	LNRD-021	UMW07		19960	1878	
GW	Ark R2	LNRD-023	UMW07		19973	1878	
GW	Ark R2	LNRD-058	UMW07		20671	1878	
GW	Ark R2	LNRD-021	UMW08		19961	1887	
GW	Ark R2	LNRD-023	UMW08		19974	1887	
GW	Ark R2	LNRD-058	UMW08		20672	1887	
GW	Ark R2	LNRD-021	UMW09		19962	1890	
GW	Ark R2	LNRD-023	UMW09		19975	1890	
GW	Ark R2	LNRD-058	UMW09		20673	1890	
GW	Ark R3	LNRD-031	390746106190200	SC01008034DCC	2468	2238	
GW	Ark R3	LNRD-064	390746106190200		22262	2240	
GW	Ark R3	LNRD-031	390908106174400	SC01008026BCD	2470	2130	
GW	Ark R3	LNRD-050	AWT1-1		20581	2120	
GW	Ark R3	LNRD-050	AWT1-2		20582	2118	
GW	Ark R3	LNRD-050	AWT1-3		20583	2119	
GW	Ark R3	LNRD-050	AWT1-4		20584	2112	
GW	Ark R3	LNRD-050	AWT2-1		20585	2113	
GW	Ark R3	LNRD-050	AWT2-2		20586	2111	
GW	Ark R3	LNRD-050	AWT2-3		20587	2108	
GW	Ark R3	LNRD-050	AWT2-4		20588	2107	
GW	Ark R3	LNRD-050	AWT2-5		20589	2102	
GW	Ark R3	LNRD-050	AWT3-1		20590	2106	
GW	Ark R3	LNRD-050	AWT3-2		20591	2103	
GW	Ark R3	LNRD-050	AWT3-3		20592	2101	
GW	Ark R3	LNRD-050	AWT3-4		20593	2096	
GW	Ark R3	LNRD-050	AWT3-5		20594	2093	

Station Lists

Groundwater sampling locations						
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DateSiteID	Sta_Buf_ID
GW	Ark R3	LNRD-050	AWT3-6		20595	2088
GW	Ark R3	LNRD-050	AWT4-1		20596	2097
GW	Ark R3	LNRD-050	AWT4-2		20597	2095
GW	Ark R3	LNRD-050	AWT4-3		20598	2090
GW	Ark R3	LNRD-050	AWT4-4		20599	2089
GW	Ark R3	LNRD-050	AWT4-5		20600	2086
GW	Ark R3	LNRD-062	GW204	Sample from a dug well behind a residence on South highway 24, Leadville.	22192	2256
GW	Ark R3	LNRD-021	UMW10		19963	2049
GW	Ark R3	LNRD-023	UMW10		19976	2049
GW	Ark R3	LNRD-058	UMW10		20674	2049
GW	Ark R3	LNRD-021	UMW11		19964	2053
GW	Ark R3	LNRD-023	UMW11		19977	2053
GW	Ark R3	LNRD-058	UMW11		20675	2053
GW	Ark R3	LNRD-021	UMW12		19965	2059
GW	Ark R3	LNRD-023	UMW12		19978	2059
GW	Ark R3	LNRD-058	UMW12		20676	2059
GW	Ark R3	LNRD-023	UMW16		19984	2084
GW	Ark R3	LNRD-058	UMW16		20682	2084
GW	Ark R3	LNRD-023	UMW17A		19985	2110
GW	Ark R3	LNRD-058	UMW17A		20683	2110
GW	Ark R3	LNRD-023	UMW17B		19986	2110
GW	Ark R3	LNRD-058	UMW17B		20684	2110
GW	Ark R3	LNRD-023	UMW18		19987	2125
GW	Ark R3	LNRD-058	UMW18		20685	2125
GW	Ark R6	LNRD-068	108050-001	Pinon Pines MHP, Well #1	22267	3008
GW	Ark R6	LNRD-068	108100-001	Snowy Peaks RV & MHP, Well #1 - Irrigation only	22268	2998
GW	Ark R6	LNRD-068	108100-002	Snowy Peaks RV & MHP, Well #2	22269	2999
GW	Ark R6	LNRD-068	108100-004	Snowy Peaks RV & MHP, Well #4 (aka NEW WELL)	22270	3007
GW	Ark R6	LNRD-068	108100-005	Snowy Peaks RV & MHP, Pipeline for Wells #2 & #4	22271	3014
GW	Ark R6	LNRD-068	108350-001	Buena Vista Correctional Fac., Cistern	22273	3207
GW	Ark R6	LNRD-068	108450-001	Collegiate Valley MV, Block Well	22280	3278
GW	Ark R6	LNRD-068	108550-001	Mt Princeton MHP & RVP, Well #1	22285	3017
GW	Ark R6	LNRD-068	108800-001	Shangri La TC, Well #1	22291	3761
GW	Ark R6	LNRD-068	108950-001	Valley MHP, Blend Tank #1	22294	2993
GW	Ark R6	LNRD-068	208200-001	Chateau Chaparrel CG, Well #1	22306	3753
GW	Ark R6	LNRD-068	208200-002	Chateau Chaparrel CG, Well #2	22307	3771
GW	Ark R6	LNRD-064	384445106044801		22256	3746
GW	Ark R6	LNRD-064	384815106084000		22257	3362
GW	Ark R6	LNRD-064	384907106052600		22258	3237
GW	Ark R6	LNRD-031	385154106081700	SC01407805BAD	2359	2995
GW	Ark R6	LNRD-031	385246106093400	SC01307831BDB	2364	2934
GW	Ark R6	LNRD-064	385246106093400		22259	2933
GW	Ark R6	LNRD-064	385747106121201		22260	2600
GW	Ark R6	LNRD-031	390239106155400	SC01107931CDA	2442	2389
GW	Ark R7	LNRD-068	108400-001	Fessler's MHP, Well #1 / West	22274	5064
GW	Ark R7	LNRD-068	108400-003	Fessler's MHP, Wells #1 and #2	22275	5094
GW	Ark R7	LNRD-064	383233105594201		22247	5016
GW	Ark R7	LNRD-031	383240106002100	SPIRAL COLD SPRING	1920	4995
GW	Ark R7	LNRD-064	383246106004601		22248	4975
GW	Ark R7	LNRD-031	383254106010200	NA05000931BAB	1924	4956
GW	Ark R7	LNRD-064	383300106023501		22249	4943
GW	Ark R7	LNRD-031	383327106022500	NA05000825BCC	1936	4894
GW	Ark R7	LNRD-064	383340106040201		22250	4857
GW	Ark R7	LNRD-064	383350105594601		22251	4840
GW	Ark R7	LNRD-031	383417106035100	NA05000822DAB	1950	4790
GW	Ark R7	LNRD-031	383439106045900	NA05000821AAC	1955	4735
GW	Ark R7	LNRD-064	383439106045900		22252	4734
GW	Ark R7	LNRD-064	383451106025901		22253	4706
GW	Ark R7	LNRD-064	383804106045101		22254	4333
GW	Ark R7	LNRD-064	384141106061800		22255	4026
GW	Ark R8	LNRD-068	108200-001	Big Springs TP, Big Spring	22272	5175
GW	Ark R8	LNRD-068	108600-001	Mountain Vista Village, Pump House Tank	22286	5195
GW	Ark R8	LNRD-031	382215105412000	NA04801231BBD	1766	5799
GW	Ark R8	LNRD-064	382220105412201		22236	5785
GW	Ark R8	LNRD-031	382310105460800	NA04801129ACC	1772	5736
GW	Ark R8	LNRD-064	382414105364501		22237	5685
GW	Ark R8	LNRD-064	382504105121901		22240	5633
GW	Ark R8	LNRD-064	382550105494801		22241	5564
GW	Ark R8	LNRD-031	382557105154600	CANON CITY HOT SPRING	1825	5566
GW	Ark R8	LNRD-064	382700105523201		22242	5487
GW	Ark R8	LNRD-031	382842105534100	NA49-10-20CDD	1842	5395
GW	Ark R8	LNRD-031	382843105534300	NA49-10-20CDC	1843	5394
GW	Ark R8	LNRD-031	382849105532500	SWISSVALE WARM SPRING A	1844	5389
GW	Ark R8	LNRD-031	382849105532800	SWISSVALE WARM SPRING F	1845	5388
GW	Ark R8	LNRD-031	382849105533300	SWISSVALE COLD SPRING	1846	5387
GW	Ark R8	LNRD-031	382907105543600	WELLSVILLE WARM SPRING	1847	5355

Station Lists

Groundwater sampling locations							
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DataSiteID	Sta_Buf_ID	
GW	Ark R8	LNRD-031	382907105544100	WELLSVILLE WARM SPRINGS		1848	5354
GW	Ark R8	LNRD-031	382907105544101	WICKERS COLD WELL		1849	5354
GW	Ark R8	LNRD-031	382912105225200	SC18-71-18BBB		1851	5368
GW	Ark R8	LNRD-064	382920105222401			22243	5351
GW	Ark R9	LNRD-031	381846104514100	SC02006714BAC		1751	5966
GW	Ark R9	LNRD-031	382036104555600	SC02006706BAD		1757	5889
GW	Ark R9	LNRD-031	382359105070900	SC01906916BAD3		1782	5702
GW	Ark R9	LNRD-064	382444104572600			22238	5661
GW	Ark R9	LNRD-031	382500105105501	SC01907011AAA		1802	5639
GW	Ark R9	LNRD-064	382504105104001			22239	5635
GW	Ark R9	LNRD-031	382506105110801	SC01907002DCD		1804	5631
GW	Ark R9	LNRD-031	382526105114101	SC01907002CBADA1		1810	5613
GW	Ark R9	LNRD-031	382531105113401	SC01907002BDCD1		1814	5602
GW	Ark R10	LNRD-031	381530104411700	SC02106505ABB2		1567	6171
GW	Ark R10	LNRD-031	381532104420701	SC02006531DDC		1575	6166
GW	Cal Gulch-At Ark Riv	LNRD-062	GW210	Sampled from a tap from the well in a Leadville residence, on Highway 300, Leadville.		22198	1550
GW	Cal Gulch-At Ark Riv	LNRD-062	GW218	Sampled from a kitchen tap in a Leadville residence, on Highway 300, Leadville.		22206	1555
GW	Cal Gulch-At Ark Riv	LNRD-023	UMW19			19988	1610
GW	Cal Gulch-At Ark Riv	LNRD-058	UMW19			20686	1610
GW	EF Ark R	LNRD-068	133150-001	Mountain View Village West, Tank - no longer in use		22296	123
GW	EF Ark R	LNRD-068	133150-002	Mountain View Village West, Well #1		22297	123
GW	EF Ark R	LNRD-068	133150-004	Mountain View Village West, Common Pipeline		22298	123
GW	EF Ark R	LNRD-068	133300-001	Village at East Fork, Well #1		22299	179
GW	EF Ark R	LNRD-068	133600-001	Mountain View Village East, Well #1		22303	132
GW	EF Ark R	LNRD-068	133600-003	Mountain View Village East, Chlorination Facility		22304	129
GW	EF Ark R	LNRD-068	133800-001	Old Pines, Well #1		22305	121
GW	EF Ark R	LNRD-031	391658106164400	SC00908012ACA		2499	109
GW	EF Ark R	LNRD-031	391756106160000	SC09-79-06BDB		2510	74
GW	EF Ark R	LNRD-031	391802106155000	SC00907906BAD		2511	72
GW	EF Ark R	LNRD-031	391833106142500	SC00807932DBD		2513	57
GW	EF Ark R	LNRD-031	392144106114800	SC00807910DDD		2516	6
GW	EF Ark R	LNRD-062	GW208	Collected sample from a kitchen tap at a Molly Brown Trailer Park residence, north of Leadville.		22196	163
GW	EF Ark R	LNRD-062	GW214	Collected sampled from a tap near the well in a wellhouse after a storage tank in San Isabel Trailer Park, Leadville.		22202	148

Station Lists

Sediment sampling locations						
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DataSiteID	Sta_Buf_ID
SD	Ark R0	LNRD-024	116427		9339	360
SD	Ark R0	LNRD-044	93LV100		20616	1452
SD	Ark R0	LNRD-063	AR-1	Gauging station on Arkansas River immediately downstream from confluence of East Fork and Tennessee Creek	22220	338
SD	Ark R1	LNRD-063	AR-3	150 m downstream from CG	22222	1637
SD	Ark R1	LNRD-051	AR-3A	Arkansas River approximately 0.5 miles downstream of confluence with California Gulch	20369	1735
SD	Ark R1	LNRD-054	AR-B-b	Arkansas @ Cal Gulch	22103	1616
SD	Ark R1	LNRD-054	AR-B-b	Hatchery Rd. - below Cal Gulch	22104	1616
SD	Ark R1	LNRD-041	km-25AR	Arkansas River -Below California Gulch	21138	1670
SD	Ark R2	LNRD-044	93LV102		20618	1868
SD	Ark R2	LNRD-044	93LV103		20619	1925
SD	Ark R2	LNRD-044	93LV121		20633	1993
SD	Ark R2	LNRD-054	AR-F	Highway 24 Bridge	22108	1985
SD	Ark R2	LNRD-054	AR-K	Smith Bridge	22111	1922
SD	Ark R2	LNRD-041	km-32	Arkansas River -Near Malta	21142	1943
SD	Ark R3	LNRD-024	117665		10534	2216
SD	Ark R3	LNRD-063	AR-5	At County Road 55 near Kobe	22223	2253
SD	Ark R3	LNRD-054	AR-E	Old Highway 24 Bridge	22107	2038
SD	Ark R3	LNRD-054	AR-I	County Road 55 Bridge	22110	2239
SD	Ark R3	LNRD-030	CO013M	ARKANSAS RIVER	20342	2244
SD	Ark R4	LNRD-044	93LV120		20632	2260
SD	Ark R5	LNRD-044	93LV119		20631	2316
SD	Ark R5	LNRD-063	AR-6		22224	2317
SD	Ark R5	LNRD-054	AR-X-a	Ark above Lake Ck. Confl.	22112	2320
SD	Ark R6	LNRD-024	115844		8782	2854
SD	Ark R6	LNRD-024	484870		13227	2540
SD	Ark R6	LNRD-024	484871		13228	2526
SD	Ark R6	LNRD-024	484877		13234	2649
SD	Ark R6	LNRD-024	484881		13238	2770
SD	Ark R6	LNRD-024	484882		13239	2712
SD	Ark R6	LNRD-024	484883		13240	2744
SD	Ark R6	LNRD-024	485680		13533	2858
SD	Ark R6	LNRD-044	94ARK105		20638	3621
SD	Ark R6	LNRD-044	94ARK106		20639	3062
SD	Ark R6	LNRD-044	94ARK107		20640	2548
SD	Ark R6	LNRD-044	94ARK108		20641	2408
SD	Ark R6	LNRD-063	AR-7	Granite	22225	2331
SD	Ark R6	LNRD-063	AR-7b	approximately 3 km downstream from Granite	22226	2422
SD	Ark R6	LNRD-063	AR-8	Buena Vista	22227	3102
SD	Ark R6	LNRD-054	AR-A	Granite Bridge	22100	2397
SD	Ark R6	LNRD-054	AR-D	RR Bridge @ Balltown	22106	2330
SD	Ark R6	LNRD-054	AR-G	Buena Vista Ballfield	22109	3087
SD	Ark R6	LNRD-054	AR-X-b	Ark below Lake Ck. Confl.	22113	2333
SD	Ark R6	LNRD-041	km-46	Arkansas River -At Granite	21144	2393
SD	Ark R6	LNRD-041	km-71	Arkansas River -At Buena Vista	21145	3073
SD	Ark R6	LNRD-041	km-96	Arkansas River -Near Nathrop	21148	3748
SD	Ark R7	LNRD-024	115877		8814	4986
SD	Ark R7	LNRD-024	484251		12615	4624
SD	Ark R7	LNRD-024	484519		12883	4982
SD	Ark R7	LNRD-024	484775		13136	4156
SD	Ark R7	LNRD-024	485651		13505	3777
SD	Ark R7	LNRD-044	94ARK102		20635	4993
SD	Ark R7	LNRD-044	94ARK104		20637	3904
SD	Ark R7	LNRD-041	km-111	Arkansas River -At Salida	21120	4972
SD	Ark R7	LNRD-054	MA-M	Spiral Drive	22127	4996
SD	Ark R7	LNRD-054	MA-Z	Browns Canyon	22130	4230
SD	Ark R8	LNRD-024	104529		5956	5807
SD	Ark R8	LNRD-024	105012		6389	5416
SD	Ark R8	LNRD-024	105034		6410	5808
SD	Ark R8	LNRD-044	94ARK101		20634	5398
SD	Ark R8	LNRD-044	94ARK202		20644	5548
SD	Ark R8	LNRD-044	94ARK203		20645	5382
SD	Ark R8	LNRD-044	94ARK204		20646	5791
SD	Ark R8	LNRD-044	94ARK205		20647	5682
SD	Ark R8	LNRD-041	km-120	Arkansas River -Near Wellsville	21122	5381
SD	Ark R8	LNRD-041	km-150	Arkansas River -At Cotopaxi	21126	5793
SD	Ark R8	LNRD-041	km-183	Arkansas River -At Parkdale	21129	5364
SD	Ark R8	LNRD-041	km-194	Arkansas River -At Canon City	21132	5538
SD	Ark R8	LNRD-054	MA-A	Feedlot Bridge	22118	5251
SD	Ark R8	LNRD-054	MA-B	Sportsmans Bridge	22119	5330
SD	Ark R8	LNRD-054	MA-C	Vallie Bridge	22120	5724
SD	Ark R8	LNRD-054	MA-D	Greens House	22121	5742
SD	Ark R8	LNRD-054	MA-E	Coaldale Bridge	22122	5804
SD	Ark R8	LNRD-054	MA-F	Cotopaxi Bridge	22123	5792
SD	Ark R8	LNRD-054	MA-G	Bad Spot in Road	22124	5411

Station Lists

Sediment sampling locations						
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DateSiteID	Sta_Buf_ID
SD	Ark R8	LNRD-054	MA-H	Mile Post 232	22125	5435
SD	Ark R8	LNRD-054	MA-I	Pleasant Valley Bridge	22126	5565
SD	Ark R8	LNRD-054	MA-Y	Parkdale	22129	5366
SD	Ark R9	LNRD-024	104460		5894	5795
SD	Ark R9	LNRD-024	104462		5896	5695
SD	Ark R9	LNRD-024	104463		5897	5731
SD	Ark R9	LNRD-031	381645104480300	PUEBLO RESERVOIR SITE 4A	1733	6051
SD	Ark R9	LNRD-031	381647104475300	PUEBLO RESERVOIR SITE 4B	1734	6046
SD	Ark R9	LNRD-031	381651104474300	PUEBLO RESERVOIR SITE 4C	1735	6045
SD	Ark R9	LNRD-031	381705104494200	PUEBLO RESERVOIR SITE T3T	1736	6039
SD	Ark R9	LNRD-031	381722104494600	PUEBLO RESERVOIR SITE 3A	1737	6023
SD	Ark R9	LNRD-031	381725104494400	PUEBLO RESERVOIR SITE 3B	1738	6021
SD	Ark R9	LNRD-031	381729104494100	PUEBLO RESERVOIR SITE 3C	1740	6018
SD	Ark R9	LNRD-031	381735104494000	PUEBLO RESERVOIR SITE T3T	1741	6039
SD	Ark R9	LNRD-031	381747104504000	PUEBLO RESERVOIR SITE 2A	1743	6007
SD	Ark R9	LNRD-031	381754104504000	PUEBLO RESERVOIR SITE 2B	1744	6003
SD	Ark R9	LNRD-031	381802104504000	PUEBLO RESERVOIR SITE 2C	1746	5996
SD	Ark R9	LNRD-044	94ARK200		20642	5733
SD	Ark R9	LNRD-044	94ARK201		20643	5599
SD	Ark R9	LNRD-041	km-215	Arkansas River -At Portland	21135	5734
SD	Ark R9	LNRD-054	MA-X	Portland	22128	5738
SD	Ark R10	LNRD-031	381523104442000	PUEBLO RESERVOIR SITE T7T	1514	6189
SD	Ark R10	LNRD-031	381525104454300	PUEBLO RESERVOIR SITE T6T1	1527	6185
SD	Ark R10	LNRD-031	381528104453200	PUEBLO RESERVOIR SITE 6A	1540	6178
SD	Ark R10	LNRD-031	381533104435100	PUEBLO RESERVOIR SITE 7A	1582	6163
SD	Ark R10	LNRD-031	381533104471600	PUEBLO RESERVOIR SITE T5T	1583	6149
SD	Ark R10	LNRD-031	381544104471200	PUEBLO RESERVOIR SITE T5T	1620	6149
SD	Ark R10	LNRD-031	381546104470100	PUEBLO RESERVOIR SITE 5A	1621	6147
SD	Ark R10	LNRD-031	381548104453300	PUEBLO RESERVOIR SITE 6C	1640	6146
SD	Ark R10	LNRD-031	381559104465500	PUEBLO RESERVOIR SITE 5C	1673	6129
SD	Ark R10	LNRD-031	381602104435200	PUEBLO RESERVOIR SITE 7B	1700	6119
SD	Ark R10	LNRD-031	381606104453400	PUEBLO RESERVOIR SITE 6E	1713	6101
SD	Ark R10	LNRD-031	381610104464900	PUEBLO RESERVOIR SITE 5E	1720	6092
SD	Ark R10	LNRD-031	381618104454600	PUEBLO RESERVOIR SITE T6T2	1724	6081
SD	Ark R10	LNRD-031	381631104435300	PUEBLO RESERVOIR SITE 7C	1730	6058
SD	Ark R10	LNRD-044	94PUBCOR		20648	6120
SD	Ark Riv nr Cal Gul (AR2)	LNRD-041	km-24	Arkansas River -Above California Gulch	21137	1514
SD	Ark Riv nr Cal Gul (AR2)	LNRD-063	AR-2	Immediately upstream from California Gulch	22221	1553
SD	Cal Gulch-At Ark Riv	LNRD-054	AR-B-a	Hatchery Rd. - above Cal Gulch	22101	1574
SD	Cal Gulch-At Ark Riv	LNRD-054	AR-B-a	Hatchery Road Bridge	22102	1574
SD	Cal Gulch-At Ark Riv	LNRD-051	CG-6	California Gulch immediately upstream of confluence with Arkansas River	20403	1590
SD	Cal Gulch-At Ark Riv	LNRD-041	km-25CG	California Gulch	21139	1562
SD	EF Ark R	LNRD-024	116423		9335	190
SD	EF Ark R	LNRD-024	116429		9341	103
SD	EF Ark R	LNRD-024	117698		10567	66
SD	EF Ark R	LNRD-024	117699		10568	73
SD	EF Ark R	LNRD-024	117700		10569	53
SD	EF Ark R	LNRD-024	117701		10570	41
SD	EF Ark R	LNRD-024	117707		10576	61
SD	EF Ark R	LNRD-024	117708		10577	59
SD	EF Ark R	LNRD-024	117709		10578	36
SD	EF Ark R	LNRD-024	117710		10579	22
SD	EF Ark R	LNRD-024	117711		10580	7
SD	EF Ark R	LNRD-024	117712		10581	24
SD	EF Ark R	LNRD-044	93LV108		20624	101
SD	EF Ark R	LNRD-044	93LV109		20625	13
SD	EF Ark R	LNRD-044	93LV110		20626	27
SD	EF Ark R	LNRD-044	93LV111		20627	60
SD	EF Ark R	LNRD-044	93LV112		20628	52
SD	EF Ark R	LNRD-054	AR-C	East Fork @ Tenn. Creek	22105	306
SD	EF Ark R	LNRD-063	EF5	East Fork of the Arkansas River at the crossing of Highway 24	22228	178
SD	EF Ark R	LNRD-063	EF6	East Fork of the Arkansas River immediately upstream from Tennessee Creek	22229	303
SD	EF Ark R	LNRD-054	EF-D	East Fork @ Cabins	22114	40
SD	EF Ark R	LNRD-054	EF-F	Upper East Fork	22115	12
SD	EF Ark R	LNRD-041	km-20	Arkansas River -Near Leadville	21133	191

Station Lists

Soil sampling locations (excluding airshed samples)							
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DataSiteID	Sta_Buf_ID	
SL	Ark R0	LNRD-057	BLM285	Seppi Property	20792	1493	
SL	Ark R0	LNRD-057	BLM286	Seppi Property	20793	1494	
SL	Ark R0	LNRD-057	BLM287	Seppi Property	20794	1495	
SL	Ark R0	LNRD-057	BLM288	Seppi Property	20795	1500	
SL	Ark R0	LNRD-057	BLM289	Seppi Property	20796	1503	
SL	Ark R0	LNRD-057	BLM319	Scott Field (End)	21055	1515	
SL	Ark R0	LNRD-057	BLM320	Scott Field	21056	1517	
SL	Ark R0	LNRD-057	BLM321	Scott Field	21057	1529	
SL	Ark R0	LNRD-057	BLM322	Scott Field	21058	1533	
SL	Ark R0	LNRD-057	BLM323	Scott Field	21059	1535	
SL	Ark R0	LNRD-057	BLM324	Scott Field	21060	1538	
SL	Ark R0	LNRD-057	BLM325	Scott Field (begin)	21061	1541	
SL	Ark R0	LNRD-057	BLM332	Scott Field 2 (begin)	21062	1108	
SL	Ark R0	LNRD-057	BLM333	Scott Field	21063	1111	
SL	Ark R0	LNRD-057	BLM334	Scott Field	21064	1123	
SL	Ark R0	LNRD-057	BLM335	Scott Field	21065	1137	
SL	Ark R0	LNRD-057	BLM336	Scott Field 2 (end)	21066	1150	
SL	Ark R0	LNRD-057	IF278	Hocket Poperty - Irrigation Field	20726	1355	
SL	Ark R0	LNRD-057	IF279	Hocket Poperty - Irrigation Field	20727	1373	
SL	Ark R0	LNRD-057	IF280	Hocket Poperty - Irrigation Field	20728	1384	
SL	Ark R0	LNRD-057	IF281	Hocket Poperty - Irrigation Field	20729	1395	
SL	Ark R0	LNRD-057	IF282	Hocket Poperty - Irrigation Field	20730	1408	
SL	Ark R0	LNRD-057	IF283	Hocket Poperty - Irrigation Field	20731	1414	
SL	Ark R0	LNRD-057	IF284	Hocket Poperty - Irrigation Field	20732	1421	
SL	Ark R0	LNRD-016	LV06		2750	1508	
SL	Ark R0	LNRD-016	LV07		2751	1446	
SL	Ark R0	LNRD-016	LV08		2752	1388	
SL	Ark R0	LNRD-016	LV09		2753	1274	
SL	Ark R0	LNRD-016	LV10		2754	1087	
SL	Ark R0	LNRD-016	LV24		2768	1534	
SL	Ark R0	LNRD-016	LV25		2769	1232	
SL	Ark R0	LNRD-016	LV26		2770	1109	
SL	Ark R0	LNRD-016	LV38		2782	184	
SL	Ark R0	LNRD-057	OB326	Outward Bound (begin)	21050	1558	
SL	Ark R0	LNRD-057	OB327	Outward Bound	21051	1568	
SL	Ark R0	LNRD-057	OB328	Outward Bound	21052	1591	
SL	Ark R0	LNRD-057	OB329	Outward Bound	21053	1604	
SL	Ark R0	LNRD-057	OB330	Outward Bound (End)	21054	1613	
SL	Ark R1	LNRD-038	1		20265	1697	
SL	Ark R1	LNRD-038	10		20266	1737	
SL	Ark R1	LNRD-038	11		20267	1744	
SL	Ark R1	LNRD-038	12		20268	1746	
SL	Ark R1	LNRD-038	13		20269	1752	
SL	Ark R1	LNRD-038	14		20270	1756	
SL	Ark R1	LNRD-038	15		20271	1757	
SL	Ark R1	LNRD-038	16		20272	1758	
SL	Ark R1	LNRD-038	17		20273	1763	
SL	Ark R1	LNRD-038	18		20274	1766	
SL	Ark R1	LNRD-038	19		20275	1771	
SL	Ark R1	LNRD-038	2		20276	1702	
SL	Ark R1	LNRD-038	20		20277	1773	
SL	Ark R1	LNRD-038	21		20278	1779	
SL	Ark R1	LNRD-038	22		20279	1784	
SL	Ark R1	LNRD-038	23		20280	1797	
SL	Ark R1	LNRD-038	24		20281	1811	
SL	Ark R1	LNRD-038	25		20282	1820	
SL	Ark R1	LNRD-038	3		20283	1713	
SL	Ark R1	LNRD-038	4		20284	1719	
SL	Ark R1	LNRD-038	5		20285	1716	
SL	Ark R1	LNRD-038	6		20286	1720	
SL	Ark R1	LNRD-038	7		20287	1725	
SL	Ark R1	LNRD-038	8		20288	1729	
SL	Ark R1	LNRD-038	9		20289	1730	
SL	Ark R1	LNRD-044	93LV101		20617	1806	
SL	Ark R1	LNRD-033	B1		20290	7243	
SL	Ark R1	LNRD-057	BLM290	Hinton Field 1 (north) (begin)	21027	1608	
SL	Ark R1	LNRD-057	BLM291	Hinton Field 1	21028	1614	
SL	Ark R1	LNRD-057	BLM292	Hinton Field 1	21029	1617	
SL	Ark R1	LNRD-057	BLM293	Hinton Field 1	21030	1619	
SL	Ark R1	LNRD-057	BLM294	Hinton Field 1	21031	1623	
SL	Ark R1	LNRD-057	BLM295	Hinton Field 1	21032	1627	
SL	Ark R1	LNRD-057	BLM296	Hinton Field 1	21033	1632	
SL	Ark R1	LNRD-057	BLM297	Hinton Field 1 (north) (End)	21034	1639	
SL	Ark R1	LNRD-057	BLM298	Beck Field	21021	1654	
SL	Ark R1	LNRD-057	BLM299	Beck Field	21022	1658	
SL	Ark R1	LNRD-057	BLM300	Beck Field	21023	1663	

Station Lists

Soil sampling locations (excluding airshed samples)							
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DataSiteID	Sta_Buf_ID	
SL	Ark R1	LNRD-057	BLM301	Beck Field	21024	1665	
SL	Ark R1	LNRD-057	BLM302	Beck Field	21025	1675	
SL	Ark R1	LNRD-057	BLM303	Beck Field	21026	1687	
SL	Ark R1	LNRD-057	BLM304	Hinton Field 2	21035	1691	
SL	Ark R1	LNRD-057	BLM305	Hinton Field 2	21036	1698	
SL	Ark R1	LNRD-057	BLM306	Hinton Field 2	21037	1701	
SL	Ark R1	LNRD-057	BLM307	Hinton Field 2	21038	1705	
SL	Ark R1	LNRD-057	BLM308	Hinton Field 2	21039	1715	
SL	Ark R1	LNRD-057	BLM309	Hinton field 3 (south) (begin)	21040	1721	
SL	Ark R1	LNRD-057	BLM310	Hinton field 3	21041	1724	
SL	Ark R1	LNRD-057	BLM311	Hinton field 3	21042	1726	
SL	Ark R1	LNRD-057	BLM312	Hinton field 3	21043	1727	
SL	Ark R1	LNRD-057	BLM313	Hinton field 3 (south) (end)	21044	1736	
SL	Ark R1	LNRD-057	BLM314	Leadbetter Field (begin)	21045	1741	
SL	Ark R1	LNRD-057	BLM315	Leadbetter Field	21046	1743	
SL	Ark R1	LNRD-057	BLM316	Leadbetter Field	21047	1747	
SL	Ark R1	LNRD-057	BLM317	Leadbetter Field	21048	1750	
SL	Ark R1	LNRD-057	BLM318	Leadbetter Field (End)	21049	1753	
SL	Ark R1	LNRD-033	D1		20291	1751	
SL	Ark R1	LNRD-033	D2		20292	1754	
SL	Ark R1	LNRD-033	D3		20293	1755	
SL	Ark R1	LNRD-033	F1		20294	1759	
SL	Ark R1	LNRD-033	F2		20295	1761	
SL	Ark R1	LNRD-033	F3		20296	1764	
SL	Ark R1	LNRD-033	H1		20297	1769	
SL	Ark R1	LNRD-033	H2		20298	1772	
SL	Ark R1	LNRD-033	H3		20299	1774	
SL	Ark R1	LNRD-033	K1		20300	1782	
SL	Ark R1	LNRD-033	K2		20301	1786	
SL	Ark R1	LNRD-033	K3		20302	1788	
SL	Ark R1	LNRD-033	K4		20303	1789	
SL	Ark R1	LNRD-033	K5		20304	1794	
SL	Ark R1	LNRD-033	L1		20305	1795	
SL	Ark R1	LNRD-033	L2		20306	1801	
SL	Ark R1	LNRD-033	L3		20307	1804	
SL	Ark R1	LNRD-033	L4		20308	1807	
SL	Ark R1	LNRD-033	L5		20309	1810	
SL	Ark R1	LNRD-033	L6		20310	1812	
SL	Ark R1	LNRD-033	L7		20311	1815	
SL	Ark R1	LNRD-016	LV22		2766	1861	
SL	Ark R1	LNRD-016	LV23		2767	1843	
SL	Ark R1	LNRD-016	LV28		2772	1660	
SL	Ark R1	LNRD-016	LV29		2773	1762	
SL	Ark R1	LNRD-016	LV30		2774	1791	
SL	Ark R1	LNRD-016	LV34		2778	1597	
SL	Ark R1	LNRD-016	LV35		2779	1723	
SL	Ark R1	LNRD-033	M1		20312	1809	
SL	Ark R1	LNRD-033	M10		20313	1837	
SL	Ark R1	LNRD-033	M2		20314	1813	
SL	Ark R1	LNRD-033	M3		20315	1817	
SL	Ark R1	LNRD-033	M4		20316	1819	
SL	Ark R1	LNRD-033	M5		20317	1821	
SL	Ark R1	LNRD-033	M6		20318	1825	
SL	Ark R1	LNRD-033	M7		20319	1827	
SL	Ark R1	LNRD-033	M8		20320	1830	
SL	Ark R1	LNRD-033	M9		20321	1832	
SL	Ark R1	LNRD-033	P1		20322	1822	
SL	Ark R1	LNRD-033	P2		20323	1826	
SL	Ark R1	LNRD-033	P3		20324	1829	
SL	Ark R1	LNRD-033	R1		20325	1836	
SL	Ark R1	LNRD-033	R2		20326	1841	
SL	Ark R1	LNRD-036	SB	Seppi ranch	21151	1607	
SL	Ark R1	LNRD-036	SC	Seppi ranch	21152	1700	
SL	Ark R1	LNRD-036	SD	Seppi ranch	21153	1738	
SL	Ark R2	LNRD-044	93LV102		20618	1868	
SL	Ark R2	LNRD-036	BA	Smith ranch	21149	1897	
SL	Ark R2	LNRD-016	LV19		2763	1982	
SL	Ark R2	LNRD-016	LV20		2764	1926	
SL	Ark R2	LNRD-016	LV21		2765	1908	
SL	Ark R2	LNRD-016	LV31		2775	1974	
SL	Ark R2	LNRD-016	LV32		2776	1969	
SL	Ark R2	LNRD-016	LV33		2777	1963	
SL	Ark R2	LNRD-016	LV36		2780	1946	
SL	Ark R2	LNRD-016	LV37		2781	1937	
SL	Ark R3	LNRD-016	LV11		2755	2245	
SL	Ark R3	LNRD-016	LV12		2756	2191	

Station Lists

Soil sampling locations (excluding airshed samples)							
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DataSiteID	Sta_Buf_ID	
SL	Ark R3	LNRD-016	LV13		2757	2187	
SL	Ark R3	LNRD-016	LV14		2758	2184	
SL	Ark R3	LNRD-016	LV15		2759	2162	
SL	Ark R3	LNRD-016	LV16		2760	2122	
SL	Ark R3	LNRD-016	LV17		2761	2047	
SL	Ark R3	LNRD-016	LV18		2762	2077	
SL	Ark R3	LNRD-050	TYS10		20601	2192	
SL	Ark R3	LNRD-050	TYS11		20602	2204	
SL	Ark R3	LNRD-050	TYS13a		20603	2232	
SL	Ark R3	LNRD-050	TYS14		20604	2223	
SL	Ark R3	LNRD-050	TYS1a		20605	2065	
SL	Ark R3	LNRD-050	TYS2		20606	2048	
SL	Ark R3	LNRD-050	TYS3		20607	2075	
SL	Ark R3	LNRD-050	TYS4		20608	2091	
SL	Ark R3	LNRD-050	TYS5		20609	2129	
SL	Ark R3	LNRD-050	TYS6		20610	2146	
SL	Ark R3	LNRD-050	TYS7		20611	2168	
SL	Ark R3	LNRD-050	TYS8		20612	2168	
SL	Ark R3	LNRD-050	TYS9		20613	2186	
SL	Ark R6	LNRD-057	CCT1A	Clear Creek	20705	2429	
SL	Ark R6	LNRD-057	CCT1A	Clear Creek	20706	2429	
SL	Ark R6	LNRD-057	CCT1B	Clear Creek	20707	2428	
SL	Ark R6	LNRD-057	CCT1B	Clear Creek	20708	2428	
SL	Ark R6	LNRD-057	CCT1C	Clear Creek	20709	2427	
SL	Ark R6	LNRD-057	CCT1E	Clear Creek	20710	2426	
SL	Ark R6	LNRD-057	CHT1A	Champion State Wildlife Area	20711	3428	
SL	Ark R6	LNRD-057	CHT1B	Champion State Wildlife Area	20712	3427	
SL	Ark R6	LNRD-057	CHT1C	Champion State Wildlife Area	20713	3426	
SL	Ark R6	LNRD-057	CHT1D	Champion State Wildlife Area	20714	3425	
SL	Ark R6	LNRD-057	CHT1E	Champion State Wildlife Area	20715	3424	
SL	Ark R7	LNRD-057	BBT1A	Big Bend Recreation Site	20700	4767	
SL	Ark R7	LNRD-057	BBT1B	Big Bend Recreation Site	20701	4769	
SL	Ark R7	LNRD-057	BBT1C	Big Bend Recreation Site	20702	4770	
SL	Ark R7	LNRD-057	BBT1D	Big Bend Recreation Site	20703	4771	
SL	Ark R7	LNRD-057	BBT1E	Big Bend Recreation Site	20704	4772	
SL	Ark R8	LNRD-057	FPT1A	Floodplain	20716	5466	
SL	Ark R8	LNRD-057	FPT1A	Floodplain	20717	5466	
SL	Ark R8	LNRD-057	FPT1B	Floodplain	20718	5467	
SL	Ark R8	LNRD-057	FPT1C	Floodplain	20719	5468	
SL	Ark R8	LNRD-057	FPT1E	Floodplain	20720	5470	
SL	Ark R8	LNRD-057	GCT1A	Grape Creek	20721	5568	
SL	Ark R8	LNRD-057	GCT1B	Grape Creek	20722	5569	
SL	Ark R8	LNRD-057	GCT1B	Grape Creek	20723	5569	
SL	Ark R8	LNRD-057	GCT1C	Grape Creek	20724	5570	
SL	Ark R8	LNRD-057	GCT1D	Grape Creek	20725	5571	
SL	Ark R8	LNRD-057	PBT1A	Parkdale Bridge	20759	5379	
SL	Ark R8	LNRD-057	PBT1B	Parkdale Bridge	20760	5378	
SL	Ark R8	LNRD-057	PBT1C	Parkdale Bridge	20761	5376	
SL	Ark R8	LNRD-057	PBT1C	Parkdale Bridge	20762	5376	
SL	Ark R8	LNRD-057	PBT1D	Parkdale Bridge	20763	5375	
SL	Ark R8	LNRD-057	PDT1A	Parkdale Recreation Site	20764	5369	
SL	Ark R8	LNRD-057	PDT1B	Parkdale Recreation Site	20765	5370	
SL	Ark R8	LNRD-057	PDT1C	Parkdale Recreation Site	20766	5371	
SL	Ark R8	LNRD-057	PiRoT1A	Pinnacle Rock	20767	5492	
SL	Ark R8	LNRD-057	PiRoT1B	Pinnacle Rock	20768	5493	
SL	Ark R8	LNRD-057	PiRoT1C	Pinnacle Rock	20769	5494	
SL	Ark R8	LNRD-057	SBT1A	Spike Buck	20791	5459	
SL	Ark R8	LNRD-057	SLT1A	Salt Lick Recreation Site	20797	5475	
SL	Ark R8	LNRD-057	SLT1A	Salt Lick Recreation Site	20798	5475	
SL	Ark R8	LNRD-057	SLT1B	Salt Lick Recreation Site	20799	5476	
SL	Ark R8	LNRD-057	SLT1C	Salt Lick Recreation Site	20800	5477	
SL	Ark R8	LNRD-057	SLT1D	Salt Lick Recreation Site	20801	5479	
SL	Ark R8	LNRD-057	SLT1E	Salt Lick Recreation Site	20802	5480	
SL	Ark R8	LNRD-057	VBP1A	VB	21067	5715	
SL	Ark R9	LNRD-057	PR11T2A	Pueblo Reservoir	20770	5969	
SL	Ark R9	LNRD-057	PR11T2B	Pueblo Reservoir	20771	5970	
SL	Ark R9	LNRD-057	PR11T2C	Pueblo Reservoir	20772	5971	
SL	Ark R9	LNRD-057	PR11T2D	Pueblo Reservoir	20773	5972	
SL	Ark R9	LNRD-057	PR11T2E	Pueblo Reservoir	20774	5973	
SL	Ark R9	LNRD-057	PR11T2F	Pueblo Reservoir	20775	5974	
SL	Ark R9	LNRD-057	PR11T2G	Pueblo Reservoir	20776	5976	
SL	Ark R9	LNRD-057	PR11T2H	Pueblo Reservoir	20777	5977	
SL	Ark R9	LNRD-057	PR12T1A	Pueblo Reservoir	20778	5978	
SL	Ark R9	LNRD-057	PR12T1B	Pueblo Reservoir	20779	5979	
SL	Ark R9	LNRD-057	PR12T1C	Pueblo Reservoir	20780	5980	
SL	Ark R9	LNRD-057	PR12T1D	Pueblo Reservoir	20781	5981	

Station Lists

Soil sampling locations (excluding airshed samples)							
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DataSiteID	Sta_Buf_ID	
SL	Ark R9	LNRD-057	PR12T1E	Pueblo Reservoir	20782	5982	
SL	Ark R9	LNRD-057	PR5B1A	Pueblo Reservoir	20783	5935	
SL	Ark R9	LNRD-057	PR6T1A	Pueblo Reservoir	20784	5941	
SL	Ark R9	LNRD-057	PR7B	Pueblo Reservoir	20785	5945	
SL	Ark R9	LNRD-057	PR7B	Pueblo Reservoir	20786	5945	
SL	Ark R9	LNRD-057	PR9T1A	Pueblo Reservoir	20787	5950	
SL	Ark R9	LNRD-057	PR9T1B	Pueblo Reservoir	20788	5952	
SL	Ark R9	LNRD-057	PR9T1C	Pueblo Reservoir	20789	5953	
SL	Ark R9	LNRD-057	PR9T1D	Pueblo Reservoir	20790	5957	
SL	EF Ark R	LNRD-057	LMDTPT1	Additional point off transect. - Leadville Mine Drainage Tunnel	20737	140	
SL	EF Ark R	LNRD-057	LMDTT1A	Leadville Mine Drainage Tunnel	20738	134	
SL	EF Ark R	LNRD-057	LMDTT1B	Leadville Mine Drainage Tunnel	20739	136	
SL	EF Ark R	LNRD-057	LMDTT1C	Leadville Mine Drainage Tunnel	20740	137	
SL	EF Ark R	LNRD-057	LMDTT1D	Leadville Mine Drainage Tunnel	20741	138	
SL	EF Ark R	LNRD-057	LMDTT1E	Leadville Mine Drainage Tunnel	20742	139	
SL	EF Ark R	LNRD-057	LMDTT1F	Leadville Mine Drainage Tunnel	20743	141	
SL	EF Ark R	LNRD-057	LMDTT1G	Leadville Mine Drainage Tunnel	20744	144	
SL	EF Ark R	LNRD-057	MB258	East end of transect - Molly Brown Trailer Park	20745	154	
SL	EF Ark R	LNRD-057	MB259	Molly Brown Trailer Park	20746	156	
SL	EF Ark R	LNRD-057	MB260	Molly Brown Trailer Park	20747	157	
SL	EF Ark R	LNRD-057	MB261	Molly Brown Trailer Park	20748	159	
SL	EF Ark R	LNRD-057	MB262	Molly Brown Trailer Park	20749	160	
SL	EF Ark R	LNRD-057	MB263	Molly Brown Trailer Park	20750	162	
SL	EF Ark R	LNRD-057	MB264	Molly Brown Trailer Park	20751	164	
SL	EF Ark R	LNRD-057	MB265	Molly Brown Trailer Park	20752	166	
SL	EF Ark R	LNRD-057	MB266	West end of transect - Molly Brown Trailer Park	20753	168	
SL	EF Ark R	LNRD-057	UB273	East end of transect - Upper Bench	20808	142	
SL	EF Ark R	LNRD-057	UB274	Upper Bench	20809	143	
SL	EF Ark R	LNRD-057	UB275	Upper Bench	20810	145	
SL	EF Ark R	LNRD-057	UB276	West end of transect - Upper Bench	20811	146	

Station Lists

Surface water sampling locations						
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DataSiteID	Sta_Buf_ID
SW	Ark R0	LNRD-031	000009	ARKANSAS R. BELOW LEADVILLE, COL	955	348
SW	Ark R0	LNRD-025	07081200	Arkansas River near Leadville CO.	20332	347
SW	Ark R0	LNRD-031	07081200	ARKANSAS RIVER NEAR LEADVILLE, CO.	981	348
SW	Ark R0	LNRD-031	391415106205100	1 ARKANSAS RIVER NEAR LEADVILLE, CO.	2490	1094
SW	Ark R0	LNRD-006	AR-1	Arkansas River upstream of confluence with California Gulch, approximately 0.25 miles downstream of confluence with Tennessee Creek (AR05*)	789	377
SW	Ark R0	LNRD-010	AR-1	Gauging station on Arkansas River immediately downstream from confluence of East Fork and Tennessee Creek	2785	338
SW	Ark R0	LNRD-010	AR-1	Gauging station on Arkansas River immediately downstream from confluence of East Fork and Tennessee Creek	19942	338
SW	Ark R0	LNRD-015	AR-1	Gauging station on Arkansas River immediately downstream from confluence of East Fork and Tennessee Creek	19932	338
SW	Ark R0	LNRD-049	AR-1	Arkansas River at USGS gaging station immediately downstream from the confluence with Tennessee Creek and East Fork Arkansas River	21018	338
SW	Ark R0	LNRD-051	AR-1	Arkansas River upstream of confluence with California Gulch, approximately 0.25 miles downstream of the confluence with Tennessee Creek	20365	350
SW	Ark R0	LNRD-055	AR-1	Arkansas River at Leadville (at USGS Gage)	22143	338
SW	Ark R0	LNRD-051	AR-12	Arkansas River upstream of confluence with California Gulch, between AR-1 and AR-2	20366	620
SW	Ark R0	LNRD-006	F8UP	FLUVIAL TAILINGS SURFACE WATER	444	1579
SW	Ark R0	LNRD-006	SW105	SAMPLE FROM THE ARKANSAS RIVER, OFF THE EAST BANK, AT A U.S.G.S. GAGING STATION ON THE RIVER, APPX .25 MI SOUTHWEST OF LEADVILLE JUNCTION.	675	345
SW	Ark R0	LNRD-062	SW105	Sample from the Arkansas River, off the east bank, at a USGS gaging station on the river, approximately .25 miles southwest of Leadville Junction.	22212	361
SW	Ark R1	LNRD-011	25	Below California G	800	1611
SW	Ark R1	LNRD-011	350-25	Below California G/25.020	858	1561
SW	Ark R1	LNRD-031	391313106212000	ARKANSAS RIVER BLW CALIFORNIA GULCH	2479	1634
SW	Ark R1	LNRD-006	AR-3	Approximately 0.5 km downstream of California Gulch, after complete mixing occurs with the Arkansas River	792	1630
SW	Ark R1	LNRD-010	AR-3	150 m downstream from CG	2787	1637
SW	Ark R1	LNRD-010	AR-3	150 m downstream from CG	19944	1637
SW	Ark R1	LNRD-015	AR-3	150 m downstream from CG	19934	1637
SW	Ark R1	LNRD-055	AR-3	Arkansas River blw California Gulch (east bank)	22145	1637
SW	Ark R1	LNRD-006	AR-3A	Arkansas River approximately 0.5 miles downstream of confluence with California Gulch	793	1739
SW	Ark R1	LNRD-051	AR-3A	Arkansas River approximately 0.5 miles downstream of confluence with California Gulch	20369	1735
SW	Ark R1	LNRD-055	AR-3a	1/4 mile ds of Cal Gulch on Harry Becks property, just south of the AR3 station on Edith Seppis property	22146	1669
SW	Ark R1	LNRD-060	AR-3A	Arkansas River approximately 0.5 miles downstream of confluence with California Gulch	21069	1739
SW	Ark R1	LNRD-060	AR-3B		21070	1740
SW	Ark R1	LNRD-006	AR-3E	East 1/3 Arkansas River in mixing zone with California Gulch (AR3 & AR03*)	794	1630
SW	Ark R1	LNRD-006	AR-3W	West 2/3 Arkansas River in mixing zone with California Gulch water (AR03*)	795	1628
SW	Ark R1	LNRD-006	CH2-SW-14	DOWNSTREAM OF CA. GULCH/ARKANSAS RIVER CONFLUENCE	397	1559
SW	Ark R1	LNRD-006	F8DN	FLUVIAL TAILINGS SURFACE WATER	443	1865
SW	Ark R1	LNRD-041	km-25AR	Arkansas River -Below California Gulch	21138	1670
SW	Ark R1	LNRD-006	LB-AR-4	ARKANSAS RIVER STATION #4	495	1666
SW	Ark R1	LNRD-006	SW111	SAMP FRM E SIDE OF ARKANSAS RVR APPX .25 MI S OF THE CONFLUNCE W/ CAL GULCH JUST S OF STATE HWY 300	681	1595
SW	Ark R1	LNRD-062	SW111	Sample from the east bank of the Arkansas River approximately .25 miles south of the confluence with California Gulch, just south of State Highway 300.	22218	1626
SW	Ark R2	LNRD-025	07083700	rkansas River near Malta CO.	20337	1989
SW	Ark R2	LNRD-031	07083700	ARKANSAS RIVER NEAR MALTA, CO.	988	1990
SW	Ark R2	LNRD-006	AR-4	Arkansas River approximately 0.5 miles downstream of confluence with Lake Fork (AR02*)	319	1920
SW	Ark R2	LNRD-015	AR-4		19935	1924
SW	Ark R2	LNRD-051	AR-4	SMI: Arkansas River approximately 0.5 miles downstream of confluence with Lake Fork; Golder: Arkansas River below confluence with Halfmoon Creek - Lake Fork	20370	1920
SW	Ark R2	LNRD-055	AR-4	Arkansas River blw Lake Fork and Halfmoon Ck	22147	1924
SW	Ark R2	LNRD-050	AR-40		20577	1889
SW	Ark R2	LNRD-041	km-27	Arkansas River -Below Lake Fork	21141	1909
SW	Ark R2	LNRD-041	km-32	Arkansas River -Near Malta	21142	1943
SW	Ark R2	LNRD-006	LB-AR-5	ARKANSAS RIVER STATION #5	496	1927
SW	Ark R2	LNRD-006	SW101	SAMP FRM THE ARKANSAS RVR NEAR CTY RD 44, S OF LEADVILLE 25 FT UPSTREAM OF A RANCH BRIDGE (CROSNR ARKANSAS) OFF THE E BANK	671	1916
SW	Ark R2	LNRD-062	SW101	Sample from Arkansas River near County Road 44, south of Leadville, 25 ft upstream of a ranch bridge (crossing the Arkansas) off the e bank.	22208	1923
SW	Ark R2	LNRD-062	SW110	Sample from the east bank of the Arkansas River approximately 100 feet upstream of the bridge at the river crossing and State Highway.	22217	1986
SW	Ark R3	LNRD-025	07083710	Arkansas River below Empire Gulch near Malta CO.	20338	2042
SW	Ark R3	LNRD-031	07083710	ARKANSAS RIVER BELOW EMPIRE GULCH NEAR MALTA, CO	989	2042
SW	Ark R3	LNRD-006	AR-5	Arkansas River upstream of confluence with Empire Gulch and approximately 0.25 miles downstream of Hwy. 24 bridge (AR01*)	320	2025

Station Lists

Surface water sampling locations						
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DateSiteID	Sta_Buf_ID
SW	Ark R3	LNRD-010	AR-5	At County Road 55 near Kobe	2788	2253
SW	Ark R3	LNRD-010	AR-5	At County Road 55 near Kobe	19945	2253
SW	Ark R3	LNRD-015	AR-5	At County Road 55 near Kobe	19936	2253
SW	Ark R3	LNRD-051	AR-5	SMI: Arkansas River upstream of confluence with Empire Gulch and approximately 0.25 miles downstream of Highway 24 bridge; Golder:Arkansas River below confluence with Empire Gulch	20371	2025
SW	Ark R3	LNRD-055	AR-5	Arkansas River at gage blw Empire Gulch (near Hwy 24 bridge)	22148	2042
SW	Ark R3	LNRD-050	AR-65		20578	2041
SW	Ark R3	LNRD-050	AR-67		20579	2099
SW	Ark R3	LNRD-050	AR-70		20580	2247
SW	Ark R3	LNRD-030	CO013M	ARKANSAS RIVER	20342	2244
SW	Ark R3	LNRD-006	LB-AR-6	ARKANSAS RIVER STATION #6	497	2012
SW	Ark R3	LNRD-050	TYW12		20614	2056
SW	Ark R3	LNRD-050	TYW8		20615	2121
SW	Ark R4	LNRD-031	390618106175400	ARKANSAS R AB TWOBIT GULCH NR GRANITE, CO.	2464	2275
SW	Ark R5	LNRD-015	AR-6		19937	2317
SW	Ark R5	LNRD-055	AR-6	Arkansas River at Balltown (blw Lake Creek)	22149	2317
SW	Ark R5	LNRD-055	AR-6a	Arkansas River across from Panark Lodge	22150	2317
SW	Ark R6	LNRD-025	07086000	Arkansas River at Granite CO.	20340	2399
SW	Ark R6	LNRD-031	07086000	ARKANSAS RIVER AT GRANITE, CO.	992	2400
SW	Ark R6	LNRD-031	07087200	ARKANSAS RIVER AT BUENA VISTA, CO.	995	3070
SW	Ark R6	LNRD-011	26	Clarks Br	802	3121
SW	Ark R6	LNRD-011	26	Marquard Nature Area	803	3121
SW	Ark R6	LNRD-011	27	Otero Pump Station	804	2609
SW	Ark R6	LNRD-011	28	Johnsons Village	805	3282
SW	Ark R6	LNRD-031	384605106054800	ARKANSAS R	2201	3605
SW	Ark R6	LNRD-031	385838106124800	9 ARKANSAS RIVER NEAR PINE CREEK SCHOOL, CO.	2422	2549
SW	Ark R6	LNRD-011	48	Granite	920	2396
SW	Ark R6	LNRD-031	7157	ARKANSAS R. AB. BUENA VISTA	2532	3108
SW	Ark R6	LNRD-010	AR-7	Granite	2789	2331
SW	Ark R6	LNRD-010	AR-7	Granite	19946	2331
SW	Ark R6	LNRD-015	AR-7	Granite	19938	2331
SW	Ark R6	LNRD-055	AR-7	Arkansas River at Granite (at USGS gage)	22151	2331
SW	Ark R6	LNRD-055	AR-7C	Arkansas River 2 miles downstream from AR7	22152	2387
SW	Ark R6	LNRD-010	AR-8	Buena Vista	2790	3102
SW	Ark R6	LNRD-010	AR-8	Buena Vista	19947	3102
SW	Ark R6	LNRD-015	AR-8	Buena Vista	19940	3102
SW	Ark R6	LNRD-055	AR-8	Arkansas River at Buena Vista (at USGS gage)	22153	3102
SW	Ark R6	LNRD-041	km-46	Arkansas River -At Granite	21144	2393
SW	Ark R6	LNRD-041	km-71	Arkansas River -At Buena Vista	21145	3073
SW	Ark R6	LNRD-041	km-96	Arkansas River -Near Nathrop	21148	3748
SW	Ark R7	LNRD-031	000008	ARKANSAS RIVER NEAR SALIDA	954	4344
SW	Ark R7	LNRD-031	07091200	ARKANSAS RIVER NEAR NATHROP, CO.	999	4223
SW	Ark R7	LNRD-031	07091500	ARKANSAS RIVER AT SALIDA, CO.	1000	4978
SW	Ark R7	LNRD-011	31	Shavano USGS	820	4991
SW	Ark R7	LNRD-031	383328106022100	NA49-8-1CBB C P MORGEN	1938	4888
SW	Ark R7	LNRD-031	383341106024400	16 ARKANSAS RIVER NEAR BELLEVIEW, CO.	1940	4853
SW	Ark R7	LNRD-031	383426106044200	ARKANSAS R	1951	4765
SW	Ark R7	LNRD-031	383644106032000	ARKANSAS RIVER NEAR BROWNS CANYON BRIDGE	1980	4444
SW	Ark R7	LNRD-041	km-111	Arkansas River -At Salida	21120	4972
SW	Ark R8	LNRD-031	000007	ARKANSAS RIVER NEAR CANON CITY	953	5562
SW	Ark R8	LNRD-031	07093700	ARKANSAS RIVER NEAR WELLSVILLE, CO.	1003	5287
SW	Ark R8	LNRD-031	07094025	ARKANSAS R AT PARKDALE SIDING NEAR PARKDALE, CO.	1007	5377
SW	Ark R8	LNRD-031	07094500	ARKANSAS RIVER AT PARKDALE, CO.	1011	5361
SW	Ark R8	LNRD-031	07096000	ARKANSAS RIVER AT CANON CITY, CO.	1015	5562
SW	Ark R8	LNRD-011	30	Stockyard Br	811	5252
SW	Ark R8	LNRD-011	32	Cotopaxi	829	5797
SW	Ark R8	LNRD-011	33	9th St Br	830	5536
SW	Ark R8	LNRD-011	34	Parkdale	855	5362
SW	Ark R8	LNRD-031	382217105411800	ARKANSAS RIVER AT COTOPAXI, CO	1767	5794
SW	Ark R8	LNRD-031	383108105583800	NA49-09-09ABD	1888	5186
SW	Ark R8	LNRD-041	km-120	Arkansas River -Near Wellsville	21122	5381
SW	Ark R8	LNRD-041	km-150	Arkansas River -At Cotopaxi	21126	5793
SW	Ark R8	LNRD-041	km-183	Arkansas River -At Parkdale	21129	5364
SW	Ark R8	LNRD-041	km-194	Arkansas River -At Canon City	21132	5538
SW	Ark R9	LNRD-031	000129	ARKANSAS RIVER BELOW CANON CITY	972	5623
SW	Ark R9	LNRD-031	07097000	ARKANSAS RIVER AT PORTLAND, CO.	1018	5739
SW	Ark R9	LNRD-031	07099200	ARKANSAS RIVER NEAR PORTLAND, CO.	1022	5905
SW	Ark R9	LNRD-011	35	MacKenzie Br	856	5620
SW	Ark R9	LNRD-011	36	Portland USGS	869	5735
SW	Ark R9	LNRD-011	37	Union Hill Mill	880	5707
SW	Ark R9	LNRD-031	381645104480300	PUEBLO RESERVOIR SITE 4A	1733	6051
SW	Ark R9	LNRD-031	381647104475300	PUEBLO RESERVOIR SITE 4B	1734	6046
SW	Ark R9	LNRD-031	381651104474300	PUEBLO RESERVOIR SITE 4C	1735	6045
SW	Ark R9	LNRD-031	381705104494200	PUEBLO RESERVOIR SITE 3T	1736	6039
SW	Ark R9	LNRD-031	381722104494600	PUEBLO RESERVOIR SITE 3A	1737	6023

Station Lists

Surface water sampling locations						
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DateSiteID	Sta_Buf_ID
SW	Ark R9	LNRD-031	381725104494400	PUEBLO RESERVOIR SITE 3B	1738	6021
SW	Ark R9	LNRD-031	381729104494100	PUEBLO RESERVOIR SITE 3C	1740	6018
SW	Ark R9	LNRD-031	381735104494000	PUEBLO RESERVOIR SITE T3T	1741	6039
SW	Ark R9	LNRD-031	381745104514900	PUEBLO RESERVOIR SITE 1A	1742	6008
SW	Ark R9	LNRD-031	381747104504000	PUEBLO RESERVOIR SITE 2A	1743	6007
SW	Ark R9	LNRD-031	381754104504000	PUEBLO RESERVOIR SITE 2B	1744	6003
SW	Ark R9	LNRD-031	381754104515100	PUEBLO RESERVOIR SITE 1B	1745	6004
SW	Ark R9	LNRD-031	381802104504000	PUEBLO RESERVOIR SITE 2C	1746	5996
SW	Ark R9	LNRD-031	381803104515400	PUEBLO RESERVOIR SITE 1C	1747	5994
SW	Ark R9	LNRD-031	381840104525700	ARKANSAS RIVER 1.5 MI UPSTREAM SWALLOWS	1750	5968
SW	Ark R9	LNRD-031	382337105014600	HARDSCRABBLE CREEK AT HWY 120 AT PORTLAND CO.	1777	5723
SW	Ark R9	LNRD-031	CO-0000671-1	IDEAL CEMENT FLORENCE	2582	5748
SW	Ark R9	LNRD-031	CO-0000671-3	IDEAL CEMENT FLORENCE	2583	5748
SW	Ark R9	LNRD-041	km-215	Arkansas River -At Portland	21135	5734
SW	Ark R10	LNRD-031	07099400	ARKANSAS RIVER ABOVE PUEBLO, CO.	1028	6082
SW	Ark R10	LNRD-031	381523104442000	PUEBLO RESERVOIR SITE T7T	1514	6189
SW	Ark R10	LNRD-031	381525104454300	PUEBLO RESERVOIR SITE T6T1	1527	6185
SW	Ark R10	LNRD-031	381528104453200	PUEBLO RESERVOIR SITE 6A	1540	6178
SW	Ark R10	LNRD-031	381533104435100	PUEBLO RESERVOIR SITE 7A	1582	6163
SW	Ark R10	LNRD-031	381533104471600	PUEBLO RESERVOIR SITE T5T	1583	6149
SW	Ark R10	LNRD-031	381544104414400	2 AM2 ARKANSAS RIVER NEAR GOODNIGHT	1619	6148
SW	Ark R10	LNRD-031	381544104471200	PUEBLO RESERVOIR SITE T5T	1620	6149
SW	Ark R10	LNRD-031	381546104470100	PUEBLO RESERVOIR SITE 5A	1621	6147
SW	Ark R10	LNRD-031	381548104453300	PUEBLO RESERVOIR SITE 6C	1640	6146
SW	Ark R10	LNRD-031	381552104465800	PUEBLO RESERVOIR SITE 5B	1655	6140
SW	Ark R10	LNRD-031	381559104465500	PUEBLO RESERVOIR SITE 5C	1673	6129
SW	Ark R10	LNRD-031	381602104435200	PUEBLO RESERVOIR SITE 7B	1700	6119
SW	Ark R10	LNRD-031	381604104465200	PUEBLO RESERVOIR SITE 5D	1706	6111
SW	Ark R10	LNRD-031	381606104453400	PUEBLO RESERVOIR SITE 6E	1713	6101
SW	Ark R10	LNRD-031	381608104433000	PUEBLO RESERVOIR AT DAM	1718	6098
SW	Ark R10	LNRD-031	381610104464900	PUEBLO RESERVOIR SITE 5E	1720	6092
SW	Ark R10	LNRD-031	381618104454600	PUEBLO RESERVOIR SITE T6T2	1724	6081
SW	Ark R10	LNRD-031	381631104435300	PUEBLO RESERVOIR SITE 7C	1730	6058
SW	Ark R10	LNRD-011	449	Nature Center	900	6090
SW	Ark R10	LNRD-011	450	Nature Center	901	6090
SW	Ark R10	LNRD-011	474	Nature Center	915	6090
SW	Ark Riv nr Cal Gul (AR2)	LNRD-011	24	Above California G	798	1561
SW	Ark Riv nr Cal Gul (AR2)	LNRD-011	350-24	Above California G/24.021	857	1561
SW	Ark Riv nr Cal Gul (AR2)	LNRD-031	391321106211700	ARKANSAS R AT MALTA, CO.	2482	1564
SW	Ark Riv nr Cal Gul (AR2)	LNRD-031	391322106212400	ARKANSAS RIVER ABOVE CALIFORNIA GULCH	2483	1549
SW	Ark Riv nr Cal Gul (AR2)	LNRD-006	AR-2	Arkansas River approximately 300 feet upstream of confluence with California Gulch (AR04*)	791	1579
SW	Ark Riv nr Cal Gul (AR2)	LNRD-010	AR-2	Immediately upstream from California Gulch	2786	1553
SW	Ark Riv nr Cal Gul (AR2)	LNRD-010	AR-2	Immediately upstream from California Gulch	19943	1553
SW	Ark Riv nr Cal Gul (AR2)	LNRD-015	AR-2	Immediately upstream from California Gulch	19933	1553
SW	Ark Riv nr Cal Gul (AR2)	LNRD-051	AR-2	Arkansas River approximately 300 feet upstream of confluence with California Gulch	20367	1571
SW	Ark Riv nr Cal Gul (AR2)	LNRD-055	AR-2	Arkansas River at Hwy 300 (blw bridge), Immediately upstream from California Gulch	22144	1553
SW	Ark Riv nr Cal Gul (AR2)	LNRD-060	AR-2	Arkansas River approximately 300 feet upstream of confluence with California Gulch (AR04*)	21068	1579
SW	Ark Riv nr Cal Gul (AR2)	LNRD-041	km-24	Arkansas River -Above California Gulch	21137	1514
SW	Ark Riv nr Cal Gul (AR2)	LNRD-006	LB-AR-2	ARKANSAS RIVER STATION #2	493	1540
SW	Ark Riv nr Cal Gul (AR2)	LNRD-006	LB-AR-3	ARKANSAS RIVER STATION #3	494	1603
SW	Ark Riv nr Cal Gul (AR2)	LNRD-006	SWAR03	ARKANSAS ABOVE CAL GULCH	685	1540
SW	Cal Gulch-At Ark Riv	LNRD-025	07081800	California Gulch at Malta CO.	20333	1563
SW	Cal Gulch-At Ark Riv	LNRD-031	07081800	CALIFORNIA GULCH AT MALTA, CO.	982	1564
SW	Cal Gulch-At Ark Riv	LNRD-031	391320106211400	5 CALIFORNIA GULCH AB MOUTH, NEAR MALTA, CO.	2481	1573
SW	Cal Gulch-At Ark Riv	LNRD-010	CG		2791	1567
SW	Cal Gulch-At Ark Riv	LNRD-010	CG	California Gulch at mouth (using Stednick CG4)	19948	1567
SW	Cal Gulch-At Ark Riv	LNRD-039	CG-1		20345	1593
SW	Cal Gulch-At Ark Riv	LNRD-055	CG4	California Gulch at USGS gage	22158	1567
SW	Cal Gulch-At Ark Riv	LNRD-006	CG-6	California Gulch immediately upstream of confluence with Arkansas River (CG01*)	385	1593
SW	Cal Gulch-At Ark Riv	LNRD-051	CG-6	California Gulch immediately upstream of confluence with Arkansas River	20403	1590
SW	Cal Gulch-At Ark Riv	LNRD-060	CG-6	California Gulch 200 feet above the confluence with the Arkansas River (CG01*)	21076	1572
SW	Cal Gulch-At Ark Riv	LNRD-006	CH2-SW-12	CALIFORNIA GULCH ABOVE ARKANSAS RIVER (LOWER FLUME)	396	1546
SW	Cal Gulch-At Ark Riv	LNRD-041	km-25CG	California Gulch	21139	1562
SW	Cal Gulch-At Ark Riv	LNRD-006	LB-CG-5	CALIFORNIA CULCH AND YAK TUNNEL STATION #5	506	1552
SW	Cal Gulch-At Ark Riv	LNRD-006	SW102	SMPLE FRM CAL GULCH, DIR UNDER THE BRIDGE AT THE STATE HWY 300 CROSSING, IN A WIDE AREA OF RIFFLES	672	1565
SW	Cal Gulch-At Ark Riv	LNRD-062	SW102	Sample from California Gulch, directly under the bridge at the State Highway 300 crossing, in a wide area of riffles.	22209	1570
SW	Cal Gulch-At Ark Riv	LNRD-006	SWCG05	LOWER CAL GULCH	691	1552
SW	Cal Gulch-At Ark Riv	LNRD-006	WWL-CG-1	AT FLUME ABOVE CONFLUENCE W/ ARKANSAS RIVER	739	1560
SW	EF Ark R	LNRD-031	07079195	EAST FORK ARKANSAS RIVER AT HWY 91 NR LEADVILLE,	975	102
SW	EF Ark R	LNRD-025	07079200	Leadville Mine Drainage Tunnel at Leadville CO.	20327	150

Station Lists

Surface water sampling locations						
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DataSiteID	Sta_Buf_ID
SW	EF Ark R	LNRD-031	07079200	LEADVILLE MINE DRAINAGE TUNNEL AT LEADVILLE, CO	976	151
SW	EF Ark R	LNRD-025	07079300	Ef Arkansas R at Us Hiway 24 CO.	20328	182
SW	EF Ark R	LNRD-031	07079300	EF ARKANSAS R AT US HIWAY 24, NR LEADVILLE, CO.	977	183
SW	EF Ark R	LNRD-025	07079500	East Fork Arkansas River near Leadville CO.	20329	304
SW	EF Ark R	LNRD-031	07079500	EAST FORK ARKANSAS RIVER NEAR LEADVILLE, CO.	978	305
SW	EF Ark R	LNRD-031	125902	E FORK ARKANSAS ABOVE CLIMAX	1161	2
SW	EF Ark R	LNRD-031	125903	TRIB E FORK ARKANSAS ABV CLIMAX	1162	2
SW	EF Ark R	LNRD-031	125904	E FORK ARKANSAS NR SILVER HEAD	1163	3
SW	EF Ark R	LNRD-031	391709106164600	E F ARKANSAS R AT HWY 91 NR LEADVILLE, CO.	2500	100
SW	EF Ark R	LNRD-031	7199	EAST FORK ARKANSAS RIVER ABOVE CLIMAX	2544	25
SW	EF Ark R	LNRD-031	CLIM06	DRAIN DTCH FROM AMAX MILL @ HY91	2574	15
SW	EF Ark R	LNRD-031	CLIM07	E FK ARK @ BASE FREMONT PASS	2575	17
SW	EF Ark R	LNRD-031	CLIM08	E FK ARK 2 RD MI BLW STN 7	2576	9
SW	EF Ark R	LNRD-031	CLIM09	E FK ARK 8 ROAD MI BLW STN 8	2577	99
SW	EF Ark R	LNRD-031	CO-0021717-1	USBOR LEADVILLE	2601	197
SW	EF Ark R	LNRD-055	EF0	East Fork Arkansas River blw Climax	22160	11
SW	EF Ark R	LNRD-055	EF1	East Fork Arkansas River at Hwy 91 (near Climax)	22161	104
SW	EF Ark R	LNRD-006	EF-1	East Fork Arkansas River immediately downstream of Hwy 91 (EF02)	422	105
SW	EF Ark R	LNRD-010	EF-1	East Fork of the Arkansas River near Climax	2792	11
SW	EF Ark R	LNRD-010	EF-1	East Fork of the Arkansas River near Climax	19949	11
SW	EF Ark R	LNRD-051	EF-1	SMI: East Fork Arkansas River immediately downstream of Highway 91; Golder:East Fork above confluence with Evans Gulch	20414	105
SW	EF Ark R	LNRD-006	EF-1A	East Fork Arkansas River upstream of Evans Gulch and the Leadville Drain Treatment Plant	427	122
SW	EF Ark R	LNRD-049	EF-1A	East Fork Arkansas River immediately upstream from LMDT discharge, directly north of Molly Brown trailer park	21020	122
SW	EF Ark R	LNRD-051	EF-1A	East Fork Arkansas River downstream of Highway 91- off private prop.	20415	122
SW	EF Ark R	LNRD-055	EF2	East Fork Arkansas River below LMDT	22162	155
SW	EF Ark R	LNRD-006	EF-2	East Fork Arkansas River downstream of Evans Gulch approximately 300 feet upstream of Hwy 24 (EF01)	428	185
SW	EF Ark R	LNRD-010	EF-2	East Fork of the Arkansas River at the crossing of Highway 91	2793	104
SW	EF Ark R	LNRD-010	EF-2	East Fork of the Arkansas River at the crossing of Highway 91	19950	104
SW	EF Ark R	LNRD-051	EF-2	SMI: East Fork Arkansas River downstream of Evans Gulch approximately 300 feet upstream of Highway 24; Golder: East Fork below confluence with Evans Gulch	20416	185
SW	EF Ark R	LNRD-055	EF3	East Fork Arkansas River At Hwy 24 (at USGS gage)	22163	178
SW	EF Ark R	LNRD-049	EF-3	East Fork Arkansas below LMDT	21019	192
SW	EF Ark R	LNRD-010	EF-5	East Fork of the Arkansas River at the crossing of Highway 24	2794	178
SW	EF Ark R	LNRD-010	EF-5	East Fork of the Arkansas River at the crossing of Highway 24	19951	178
SW	EF Ark R	LNRD-010	EF-6	East Fork of the Arkansas River immediately upstream from Tennessee Creek	2795	303
SW	EF Ark R	LNRD-010	EF-6	East Fork of the Arkansas River immediately upstream from Tennessee Creek	19952	303
SW	EF Ark R	LNRD-041	km-14	Arkansas River -East Fork, above Leadville Drain	21124	125
SW	EF Ark R	LNRD-041	km-15	Leadville Drain	21125	135
SW	EF Ark R	LNRD-041	km-18	Arkansas River -East Fork, below Leadville Drain	21128	158
SW	EF Ark R	LNRD-041	km-20	Arkansas River -Near Leadville	21133	191
SW	EF Ark R	LNRD-006	LB-EF-1	E FORK LEADVILLE DRAIN STATION #1	507	118
SW	EF Ark R	LNRD-006	LB-EF-2	EAST FORK & LEADVILLE DRAIN STATIONS #2	508	175
SW	EF Ark R	LNRD-006	LB-EF-3	EAST FORK & LEADVILLE DRAIN STATIONS #3	509	131
SW	EF Ark R	LNRD-006	LB-EF-4	EAST FORK & LEADVILLE DRAIN STATIONS #4	510	167
SW	EF Ark R	LNRD-006	LB-EF-5	EAST FORK & LEADVILLE DRAINAGE STATION #5	511	153
SW	EF Ark R	LNRD-055	LMDT	Leadville Mine Drainage Tunnel	22178	170
SW	EF Ark R	LNRD-006	SW106	SAMPLE FROM THE EAST FORK OF THE ARKANSAS RIVER OFF THE WEST SIDE OF A BRIDGE ON AN UNNAMED DIRT ROAD, NORTHWEST OF LEADVILLE JUNCTION	676	309
SW	EF Ark R	LNRD-062	SW106	Sample from the East Fork of the Arkansas River off the west side of a bridge on an unnamed dirt road, northwest of Leadville Junction.	22213	308
SW	EF Ark R	LNRD-006	SW107	SAMP FRM THE LEADVLE TNNL DISCHRG, 20 FT DWNSTRM OF A FLUME SITUATED APPRX 40 FT N OF WHERE DISCHRG CROSSES UNDR THE ENTRANCE TO MOLLY BRN TRAILR PARK	677	152
SW	EF Ark R	LNRD-062	SW107	Sample from the Leadville Tunnel discharge, 20 feet downstream of a flume situated approximately 40 feet north of where the discharge crosses under the entrance to Molly Brown Trailer Park.	22214	147
SW	EF Ark R	LNRD-062	SW108	Sample taken from the north bank of the East Fork Arkansas River approximately 3 miles north of Leadville on Route 91, 100 yards downstream of the Lucky Two Motel, south of the highway.	22215	70
SW	EF Ark R	LNRD-006	SWAR02	ARKANSAS BELOW EVANS	684	177
SW	EF Ark R	LNRD-006	SWE06	EVANS GULCH CONFLUENCE	697	165
SW	EF Ark R	LNRD-006	TP03	FLOW FROM THE CANTERBURY TUNNEL.	715	117
W	Ark R0	LNRD-001	10	Arkansas R. Below Leadville	1	347
W	Ark R1	LNRD-001	18032	Arkansas River below Cal Gulch	185	1869
W	Ark R2	LNRD-001	14	Arkansas River Near Malta	88	1989
W	Ark R2	LNRD-001	708370	Arkansas River	187	1972
W	Ark R3	LNRD-001	AR-3A	no	156	2014
W	Ark R5	LNRD-001	4AR	no	158	2292
W	Ark R6	LNRD-001	17	C Ear Cr.Res-Fry-Ark Project	154	2415
W	Ark R6	LNRD-001	19	Arkansas River At Granite	198	2399

Station Lists

Surface water sampling locations							
SampleMedia	SummaryZone	LNRD#	MFGStationName	Description	DataSiteID	Sta_Buf_ID	
W	Ark R6	LNRD-001	36	Arkansas River At Buena Vista	235	3069	
W	Ark R6	LNRD-001	708600	Ark at Granite	159	2373	
W	Ark R7	LNRD-001	37	Arkansas River Near Salida	236	4344	
W	Ark R7	LNRD-001	39	Arkansas River Near Nathrop	238	4223	
W	Ark R7	LNRD-001	40	City Of Salida Wwtp	240	5026	
W	Ark R8	LNRD-001	42	Arkansas River Near Wellsville	242	5286	
W	Ark R8	LNRD-001	43	Canon City Metro Sanitary District	243	5522	
W	Ark R8	LNRD-001	49	Arkansas River At Parkdale	249	5360	
W	Ark R8	LNRD-001	50	Arkansas River At Canon City	251	5561	
W	Ark R9	LNRD-001	57	Ideal Cement Florence	258	5746	
W	Ark R10	LNRD-001	119	Arkansas River Above Pueblo	34	6082	
W	Ark R10	LNRD-001	123	Arkansas R. D Gardner Plant	53	6137	
W	Ark R10	LNRD-001	8001	Arkansas River Above Pueblo	284	6082	
W	Cal Gulch-At Ark Riv	LNRD-001	9	California Gulch At Malta	305	1563	
W	EF Ark R	LNRD-001	11001	Headwaters East Fork of the Arkansas River	14	44	
W	EF Ark R	LNRD-001	11003	Ef abv Storke	15	29	
W	EF Ark R	LNRD-001	11008	Ef through wetlands	17	5	
W	EF Ark R	LNRD-001	11009	East Fork of the Ark. River above Delmonica Gulch	18	10	
W	EF Ark R	LNRD-001	11014	Chalk Creek abv trib	19	4	
W	EF Ark R	LNRD-001	11016	Chalk Creek	20	18	
W	EF Ark R	LNRD-001	11019	Ef blw Delmon	21	31	
W	EF Ark R	LNRD-001	11031	Upper English Gulch	22	43	
W	EF Ark R	LNRD-001	11050	East Fork of the Arkansas River	23	46	
W	EF Ark R	LNRD-001	11051	Low Birdseye	24	68	
W	EF Ark R	LNRD-001	11058	East Fork of the Arkansas River	25	56	
W	EF Ark R	LNRD-001	18015	Ef @ gauge	173	161	
W	EF Ark R	LNRD-001	18017	East Fork Arkansas River	175	178	
W	EF Ark R	LNRD-001	1EF	no	26	87	
W	EF Ark R	LNRD-001	24	E Fk Ark 2 Rd Mi Blw Stn 7	222	8	
W	EF Ark R	LNRD-001	25	E Fk Ark @ Base Fremont Pass	223	16	
W	EF Ark R	LNRD-001	26	Drain Ditch From Amax Mill @ Hy91	224	14	
W	EF Ark R	LNRD-001	27	E Fork Arkansas Above Climax	225	2	
W	EF Ark R	LNRD-001	31	E Fork Arkansas Nr Silver Head	230	3	
W	EF Ark R	LNRD-001	3EF	East Fork Arkansas River Below Leadville Drain	174	169	
W	EF Ark R	LNRD-001	707920	Leadville Drain	170	149	
W	EF Ark R	LNRD-001	708120	Ark near Lead	176	312	
W	EF Ark R	LNRD-001	EF-1A	East Fork Arkansas River	172	122	
W	EF Ark R	LNRD-001	EF-H	East Fork Arkansas River above Storke Portal	16	20	