

Updated June, 2010



Colorado Geological Survey  
Department of Natural Resources  
Denver, Colorado

---

Information Series 22

**Annotated Bibliography  
of Subsidence Studies  
over Abandoned Coal  
Mines in Colorado**

Originally  
Compiled in  
1989 by  
Tom Hatton and  
J. E. Turney

Updated 2010  
by Jill Carlson,  
T. C. Wait, and  
Brenda Hannu

Updated June 2010

Colorado Geological Survey  
Department of Natural Resources  
Denver, CO

---

Information Series 22

# **Annotated Bibliography of Subsidence Studies over Abandoned Coal Mines in Colorado**

DOI: <https://doi.org/10.58783/cgs.is22.ibsy7768>

Jill Carlson, Brenda Hannu, and TC Wait  
2010

Originally compiled by Tom Hatton and JE Turney  
June 1989

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Jill Carlson, Brenda Hannu, and TC Wait  
2010  
Originally compiled by Tom Hatton and JE Turney

Colorado Geological Survey  
Department of Natural Resources  
State of Colorado  
1984

Updated October 1984 Updated  
April 1986  
Updated June 1989  
Updated June 2010

A cooperative investigation conducted by the Colorado Geological Survey and funded by the Colorado Division of Reclamation Mining and Safety, Inactive Mine Program, Colorado Department of Natural Resources, through US Department of the Interior, Office of Surface Mining Reclamation and Enforcement Grants.

## Introduction

This bibliography is a compilation of data on coal mine subsidence studies in Colorado. The information contained within can be used to facilitate further study of undermined areas subject to increased development pressure from Colorado's growing population.

Specific mine investigation studies were obtained from private consultants and public sources through individual donations and the Land Use Review program. Many of these reports are available for review in the Mine Subsidence Information Center (MSIC) within the office of the Colorado Geological Survey (CGS). Other organizations referred to in the bibliography should be contacted regarding availability of their reports. Contact information for these organizations appears in Part III.

We are grateful to the many county and local government agencies and private individuals who provided valuable references and studies for use in compiling this report. We hope this bibliography will be an ongoing effort and we would be pleased to hear of any additions, corrections, or omissions.

## How to use the Bibliography

This bibliography consists of three parts: Part I, annotated bibliography; Part II, selected references; and Part III, sources of information.

Part I consists of two lists. The first list is a full bibliography sorted by County, then by MSIC Report Number. The second is an index of MSIC references sorted by County, then by Mine Name. Each reference is assigned a MSIC Report Number. The MSIC number correlates to the report within the MSIC file system, GIS database, and other reference material and is unique to each reference. Please note: there are numbering sequence gaps contained within the MSIC file system where report entries have been consolidated or relocated.

Part II is a standard bibliography of selected general references on larger scales, and includes other useful bibliographies and publications dealing with mine subsidence and geology in Colorado.

Part III lists federal, state, and local agencies which provide mine subsidence data. The general types of data available are listed with each agency.

# Table of Contents

<b>Contents</b>	<b>Page</b>
Part I: Annotated Bibliography	4
Report Bibliography by County and MSIC Report Number	5
MSIC Reference Number Listing by County and Mine Name	105
Part II: Selected References	111
Part III: Sources of Information	115
List of Figures	
<b>Figure 1:</b> Map of areas known to be undermined by historic coal mines in Colorado	120
<b>Figure 2:</b> Approximate locations of mine subsidence investigation reports in Boulder and Broomfield Counties	121
<b>Figure 3:</b> Approximate locations of mine subsidence investigation reports in El Paso County	122
<b>Figure 4:</b> Approximate locations of mine subsidence investigation reports in Fremont County	123
<b>Figure 5:</b> Approximate locations of mine subsidence investigation reports in Huerfano and Las Animas Counties	124
<b>Figure 6:</b> Approximate locations of mine subsidence investigation reports in Jefferson County	125
<b>Figure 7:</b> Approximate locations of mine subsidence investigation reports in Weld County	126

## Part I: Annotated Bibliography

# MSIC Reports by County

MSIC Report #: AU1      County: **ARCHULETA**      Date: 1971  
Author: Los Lunas Plant Materials Center, Middle Rio Grande Branch Exp. Station, USDA, NMAG Exp. Station  
Title: Evaluation of Plant Material for Critical Area Stabilization of San Juan-Chama Diversion Tunnel Spoils at Little Oso Creek and The Blanco Basin Sites w/o photos  
Availability: Colorado Geological Survey  
Mine Name(s): San Juan-Chama Diversion Project  
Location:      Latitude: 37.15695      Longitude: -106.9133  
Publisher: Los Lunas Plant Materials Center  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
Structure maps:     Other:

---

MSIC Report #: B1      County: **BOULDER**      Date: 1980  
Author: Aguirre Engineers, Inc.  
Title: Preliminary Subsurface Investigation and Geologic Reconnaissance, Proposed Business Center, Broomfield, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Monarch No. 2  
Location:    1 S    69 W    33    Latitude: 39.9196    Longitude: -105.1071  
Publisher: Aguirre Engineers, Inc.  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
Structure maps:     Other:

---

MSIC Report #: B2      County: **BOULDER**      Date: 1979  
Author: Charles S. Robinson and Associates (Frederic C. Barbis and Dale M. Cochran)  
Title: Subsidence Study for the City of Louisville, Proposed Development in Section 10, T1S, R69W, Boulder County, Colorado  
Availability: Colorado Geological Survey; City of Louisville  
Mine Name(s): Vulcan  
Location:    1 S    69 W    10    Latitude: 39.97969    Longitude: -105.1  
Publisher: Charles S. Robinson and Associates  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
Structure maps:     Other:

---



MSIC Report #: B3                      County: **BOULDER**                      Date: 1979  
Author: Charles S. Robinson and Associates (Frederic C. Barbis and Charles S. Robinson)  
Title: Subsidence Study for Cedarwood Park, Proposed Development in Section 8, T1S, R69W, Boulder County, Colorado  
Availability: Colorado Geological Survey; City of Louisville  
Mine Name(s): Acme  
Location:            1 S    69 W    SE 8            Latitude: 39.97419            Longitude: -105.1351  
Publisher: Charles S. Robinson and Associates  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
Structure maps:     Other:

---

MSIC Report #: B4                      County: **BOULDER**                      Date: 1980  
Author: William S. Calkin  
Title: Geological Report on Subsidence Potential at Ridgeview Heights, Broomfield, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Hi-Way  
Location:            1 S    69 W            26            Latitude: 39.936            Longitude: -105.0814  
Publisher: William S. Calkin  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
Structure maps:     Other:

---

MSIC Report #: B5                      County: **BOULDER**                      Date: 1979  
Author: Chen and Associates (Ralph G. Mock)  
Title: Preliminary Coal Mine Subsidence Evaluation, Three Reservoir Sites, Boulder and Weld Counties, Colorado  
Availability: Colorado Geological Survey; City of Louisville  
Mine Name(s): Matchless, Eagle  
Location:            1 S    69 W            7            Latitude: 39.99981            Longitude: -105.1087  
Publisher: Chen and Associates  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
Structure maps:     Other:

---

MSIC Report #: B6 County: **BOULDER** Date: 1997  
Author: GTG Geotechnical Services, Ltd. (Hui S. Liang)  
Title: Subsidence Evaluation, The Terraces on Coal Creek, Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Vulcan  
Location: 1 S 69 W NW 11 Latitude: 39.98123 Longitude: -105.0859  
Publisher: GTG Geotechnical Services, Ltd.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B7a County: **BOULDER** Date: 2/1979  
Author: Charles S. Robinson and Associates (Dale M. Cochran and Charles S. Robinson)  
Title: Engineering Geology, Centennial Valley, Boulder County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Crown, Matchless-Sunland, Fireside, Ajax-Leader  
Location: 1 S 69 W 7 Latitude: 39.97048 Longitude: -105.1635  
Publisher: Charles S. Robinson and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B7b County: **BOULDER** Date: 1979  
Author: Charles S. Robinson and Associates  
Title: Engineering Geology, Centennial Valley, Boulder County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Crown, Matchless-Sunland, Fireside, Ajax-Leader  
Location: 1 S 69 W 7 Latitude: 39.97048 Longitude: -105.1635  
Publisher: Charles S. Robinson and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B7c                    County: **BOULDER**                    Date: 2/1986  
Author:                    Law Engineering (Robert R. Gabriel)  
Title:                    Mine Subsidence Study, Centennial Valley Project, Louisville, Colorado  
Availability:            Colorado Geological Survey  
Mine Name(s):         Crown, Matchless  
Location:                1 S     69 W                7                    Latitude: 39.97048            Longitude: -105.1635  
Publisher:                Law Engineering Testing Company  
Contents:                Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                                  Structure maps:             Other:

---

MSIC Report #: B8                    County: **BOULDER**                    Date: 1982  
Author:                    Converse Consultants (Dale M. Cochran)  
Title:                    Phase I Mine Subsidence Study, Drive-in Theater Property, Lafayette, Colorado  
Availability:            Colorado Geological Survey  
Mine Name(s):         Electric  
Location:                1 S     69 W                4                    Latitude: 39.99358            Longitude: -105.1186  
Publisher:                Converse Consultants  
Contents:                Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                                  Structure maps:             Other:

---

MSIC Report #: B9                    County: **BOULDER**                    Date: 1982  
Author:                    Converse Consultants (Dale M. Cochran)  
Title:                    Phase II Investigation of Bedrock Overlying Abandoned Coal Mine Workings, Electric Mine, Drive-in Theater Property, Lafayette, Colorado  
Availability:            Colorado Geological Survey  
Mine Name(s):         Electric  
Location:                1 S     69 W                SE 4                    Latitude: 39.98877            Longitude: -105.1162  
Publisher:                Converse Consultants  
Contents:                Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                                  Structure maps:             Other:

---

MSIC Report #: B10 County: **BOULDER** Date: 1983  
Author: Dale M. Cochran, Consulting Engineering Geologists  
Title: Investigation of Bedrock Overlying Abandoned Coal Mine Workings, Electric Mine, Drive-In Theater Property, Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Electric  
Location: 1 S 69 W SE 4 Latitude: 39.98877 Longitude: -105.1162  
Publisher: Dale M. Cochran, Consulting Engineering Geologists  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B11 County: **BOULDER** Date: 1981  
Author: Converse Ward Davis Dixon, Inc. (Charles S. Robinson)  
Title: Subsidence Study, Dutch Creek Development, Boulder County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Acme  
Location: 1 S 69 W NE 17 Latitude: 39.96873 Longitude: -105.1327  
Publisher: Converse Ward Davis Dixon, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B12 County: **BOULDER** Date: 1982  
Author: CTL/Thompson (Ronald M. McOmber)  
Title: Evaluation of Subsidence Potential, Dutch Creek Subdivision, Louisville, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Acme  
Location: 1 S 69 W 17 Latitude: 39.96518 Longitude: -105.1375  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B13 County: **BOULDER** Date: 1983  
Author: CTL/Thompson (Ronald M. McOmber)  
Title: Evaluation of Subsidence Potential, Autumn Ridge Subdivision, Lafayette, Boulder County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Vulcan, New Centennial  
Location: 1 S 69 W SE 10 Latitude: 39.97154 Longitude: -105.094  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B14 County: **BOULDER** Date: 1983  
Author: CTL/Thompson (Ronald M. McOmber)  
Title: Evaluation of Subsidence Potential, Warembourg Property, Louisville, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Acme, Leader  
Location: 1 S 69 W NW 17 Latitude: 39.96877 Longitude: -105.1422  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B15 County: **BOULDER** Date: 1977  
Author: Charles S. Robinson and Associates (Judi C. Culver and Charles S. Robinson)  
Title: Subsidence Study for Colorado Mortgage Company, Proposed Development in T1S, R69W, Louisville, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Leader-Ajax  
Location: 1 S 69 W SW 8 Latitude: 39.9733 Longitude: -105.141  
Publisher: Charles S. Robinson and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B16 County: **BOULDER** Date: 1981  
Author: Converse Ward Davis Dixon, Inc. (William A. Gallant and Carl Benson)  
Title: Subsidence Investigation, Pow Wow Rodeo Park, Boulder County, Colorado  
Availability: Colorado Geological Survey; City of Louisville  
Mine Name(s): Hecla No. 1, Rex No. 1  
Location: 1 S 69 W SW 4 Latitude: 39.99053 Longitude: -105.1232  
Publisher: Converse Ward Davis Dixon, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B18 County: **BOULDER** Date: 1981  
Author: Converse Ward Davis Dixon, Inc. (Charles H. Robinson and Peter A. Dea)  
Title: Coal Mine Subsidence Study of the Crawford-Reich Property, Boulder County, Colorado  
Availability: Colorado Geological Survey; City of Louisville  
Mine Name(s): Rex No. 1  
Location: 1 S 69 W 5 Latitude: 39.99353 Longitude: -105.1374  
Publisher: Converse Ward Davis Dixon, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B19 County: **BOULDER** Date: 1972  
Author: Charles S. Robinson and Associates (Charles S. Robinson and Dale M. Cochran)  
Title: Preliminary Report on Subsidence at the Crown Mine, Boulder County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Crown  
Location: 1 S 70 W 13 Latitude: 39.96506 Longitude: -105.1754  
Publisher: Charles S. Robinson and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B20 County: **BOULDER** Date: 1972  
Author: Charles S. Robinson and Associates (Charles S. Robinson and Clyde R. Boyle)  
Title: Report on the Undermining and Subsidence at Lafayette Park Development, Boulder County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Simpson, Mitchell  
Location: 1 N 69 W 35 Latitude: 40.00754 Longitude: -105.0838  
Publisher: Charles S. Robinson and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B21 County: **BOULDER** Date: 1973  
Author: Charles S. Robinson and Associates (Charles S. Robinson and Clyde R. Boyle)  
Title: Subsidence Study at the Matchless-Sunland and Fireside Coal Mines, Section 7, T1S, R69W, Boulder County, Colorado  
Availability: Colorado Geological Survey; City of Louisville  
Mine Name(s): Matchless-Sunland, Fireside  
Location: 1 S 69 W 7 Latitude: 39.97964 Longitude: -105.1564  
Publisher: Charles S. Robinson and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B22 County: **BOULDER** Date: 1976  
Author: Charles S. Robinson and Associates (Charles S. Robinson and Judi C. Culver)  
Title: Engineering Geology, Colorado Technological Center, Louisville, Colorado  
Availability: Colorado Geological Survey; City of Louisville  
Mine Name(s): Nonpareil, Regal  
Location: 1 S 69 W 15 Latitude: 39.9603 Longitude: -105.1062  
Publisher: Charles S. Robinson and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B23 County: **BOULDER** Date: 1980  
Author: Charles S. Robinson and Associates (Robert S. Sennett and Richard D. Olson)  
Title: Subsidence Studies, Centaur Village North, Centaur Village South, Boulder County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): New Centennial, Electric, Big Lake, Hecla  
Location: 1 S 69 W 4 Latitude: 39.98314 Longitude: -105.1124  
Publisher: Charles S. Robinson and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B24 County: **BOULDER** Date: 1973  
Author: Charles S. Robinson and Associates (Dale M. Cochran and Charles S. Robinson)  
Title: Subsurface Investigation, Paclamar Farms Project, Boulder County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Crown, Matchless-Sunland, Fireside  
Location: 1 S 69 W 7 Latitude: 39.97048 Longitude: -105.1635  
Publisher: Charles S. Robinson and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B25 County: **BOULDER** Date: 1982  
Author: Tierra Consultants, Inc.  
Title: Mine Subsidence Potential - Drilling Program, Centennial Valley I Subdivision, Louisville, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Leader  
Location: 1 S 69 W 8 Latitude: 39.97242 Longitude: -105.1375  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---



MSIC Report #: B26 County: **BOULDER** Date: 1982  
Author: Tierra Consultants, Inc.  
Title: Report of Results: Drilling Program for Subsidence Potential, Centennial Valley II Subdivision  
Availability: Colorado Geological Survey  
Mine Name(s): Matchless, Fireside  
Location: 1 S 69 W 7 Latitude: 39.97964 Longitude: -105.1564  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B27 County: **BOULDER** Date: 1982  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential Study: Ten-Acre Site Near Louisville, Colorado  
Availability:  
Mine Name(s): Ajax  
Location: 1 S 69 W 17 Latitude: 39.96518 Longitude: -105.1375  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B28 County: **BOULDER** Date: 1982  
Author: Tierra Consultants, Inc.  
Title: Mine Subsidence Potential - Drilling Program, Sutton Estates Subdivision, Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Black Diamond No. 2  
Location: 1 S 69 W NE 3 Latitude: 39.99822 Longitude: -105.0987  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B29 County: **BOULDER** Date: 1982  
Author: Tierra Consultants, Inc.  
Title: Geologic Study, Harper Lake Expansion  
Availability: Colorado Geological Survey  
Mine Name(s): Matchless  
Location: 1 S 69 W 6 Latitude: 39.99348 Longitude: -105.1564  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B30a County: **BOULDER** Date: 1983  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential Study, Black Diamond Industrial Park, Lafayette, Colorado (1 of 3)  
Availability: Colorado Geological Survey  
Mine Name(s): Black Diamond No. 2  
Location: 1 N 69 W SE 34 Latitude: 40.00384 Longitude: -105.0981  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B30b County: **BOULDER** Date: 1984  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential Study, Black Diamond Industrial Park, Lafayette, Colorado (2 of 3)  
Availability: Colorado Geological Survey  
Mine Name(s): Black Diamond No. 2  
Location: 1 N 69 W SE 34 Latitude: 40.00384 Longitude: -105.0981  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B30c                      County: **BOULDER**                      Date: 1985  
Author: ATEC Associates, Inc. (Greg D. Sherman)  
Title: Geotechnical Engineering Investigation - Black Diamond Industry Park (3 of 3)  
Availability: Colorado Geological Survey  
Mine Name(s): Black Diamond No. 2  
Location:            1 N    69 W            SE 34            Latitude: 40.00384            Longitude: -105.0981  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
              Structure maps:             Other:

---

MSIC Report #: B31                      County: **BOULDER**                      Date: 1983  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential Study, Coal Creek Technological Center  
Availability: Colorado Geological Survey  
Mine Name(s): Vulcan  
Location:            1 S    69 W            10            Latitude: 39.97969            Longitude: -105.1  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
              Structure maps:             Other:

---

MSIC Report #: B32                      County: **BOULDER**                      Date: 1983  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential Study: Lafayette City Center Shopping Complex  
Availability:  
Mine Name(s): Strathmore  
Location:            1 S    69 W            2            Latitude: 39.99355            Longitude: -105.0811  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
              Structure maps:             Other:

---

MSIC Report #: B33 County: **BOULDER** Date: 1984  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential, Lafayette Park Subdivision  
Availability: Colorado Geological Survey  
Mine Name(s): Mitchell, Simpson  
Location: 1 N 69 W SW 35 Latitude: 40.00386 Longitude: -105.0886  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B34 County: **BOULDER** Date: 1983  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential Study: Proposed Pine Street Plaza Site, Louisville, Colorado  
Availability:  
Mine Name(s): Acme  
Location: 1 S 69 W 8 Latitude: 39.97965 Longitude: -105.1374  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B35 County: **BOULDER** Date: 1983  
Author: Tierra Consultants, Inc.  
Title: Subsidence Study, Site Located Near Marshall, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Lewis, Fox, Eagle  
Location: 1 S 70 W 21 Latitude: 39.95003 Longitude: -105.2319  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B36 County: **BOULDER** Date: 1983  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential Study, Centaur Village North Subdivision, Filing #6, Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Electric  
Location: 1 S 69 W 4 Latitude: 39.99358 Longitude: -105.1186  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B37 County: **BOULDER** Date: 1983  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential Study on Eighteen Acres Located in the Centennial Valley I Subdivision, Louisville, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Leader  
Location: 1 S 69 W 8 Latitude: 39.97242 Longitude: -105.1375  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B38 County: **BOULDER** Date: 1983  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential Study, Churchill Pointe Subdivision, Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Black Diamond No. 2  
Location: 1 S 69 W NW 3 Latitude: 39.99722 Longitude: -105.1046  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B39 County: **BOULDER** Date: 1992  
Author: Chen-Northern, Inc.  
Title: Storage Technology Corporation, New Expansion (StorageTek), Louisville, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Monarch No. 2  
Location: 1 S 69 W NE 29 Latitude: 39.93966 Longitude: -105.1329  
Publisher: Chen-Northern, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B40 County: **BOULDER** Date: 1985  
Author: Tierra Consultants, Inc.  
Title: Surface and Mine Features Map, Louisville and Lafayette  
Availability: Colorado Division of Reclamation Mining & Safety  
Mine Name(s): Multiple mines  
Location: Latitude: 39.997 Longitude: -105.102  
Publisher: Colorado Division of Mined Land Reclamation, Inactive Mine Program  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B41 County: **BOULDER** Date: 4/1984  
Author: Tierra Consultants, Inc. and Deuel and Associates  
Title: Subsidence Potential Study for Centennial IV - Master Plan  
Availability: Colorado Geological Survey  
Mine Name(s): Matchless, Fireside  
Location: 1 S 69 W 7 Latitude: 39.97964 Longitude: -105.1564  
Publisher: Tierra, ATEC, and Deuel and Associates (all the same company)  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B42 County: **BOULDER** Date: 1984  
Author: Deuel and Associates (formerly Tierra Consultants)  
Title: Subsidence Potential Study for Marcus Properties Limited, Lafayette Project  
Availability: Colorado Geological Survey  
Mine Name(s): Simpson, Mitchell  
Location: 1 N 69 W SE 35 Latitude: 40.00388 Longitude: -105.0792  
Publisher: Deuel and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B43 County: **BOULDER** Date: 12/1984  
Author: Deuel and Associates (formerly Tierra Consultants)  
Title: Subsidence Potential Study, Proposed Lafayette Elementary School Site  
Availability: Colorado Geological Survey  
Mine Name(s): Cambro  
Location: 1 S 69 W SW 2 Latitude: 39.98949 Longitude: -105.0846  
Publisher: Deuel and Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B44 County: **BOULDER** Date: 1979  
Author: F.M. Fox and Associates, Inc. (Nancy McNab)  
Title: Subsidence Hazard Investigation, Lafayette Park  
Availability: Colorado Geological Survey  
Mine Name(s): Simpson, Mitchell  
Location: 1 N 69 W 35 Latitude: 40.00754 Longitude: -105.0838  
Publisher: F.M Fox and Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B45 County: **BOULDER** Date: 6/1978  
Author: Amuedo and Ivey (John B. Ivey)  
Title: Investigations of Subsidence Potential - Proposed Additions to the City of Lafayette Wastewater Treatment Facilities  
Availability: Colorado Geological Survey  
Mine Name(s): Haywood (Irvington)  
Location: 1 N 69 W SE 36 Latitude: 40.00207 Longitude: -105.058  
Publisher: Amuedo and Ivey  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B46 County: **BOULDER** Date: 11/1978  
Author: Amuedo and Ivey (John B. Ivey)  
Title: Subsidence Evaluation - Lafayette Park Filing #2  
Availability: Colorado Geological Survey  
Mine Name(s): Simpson, Mitchell  
Location: 1 N 35 Latitude: 40.00754 Longitude: -105.0838  
Publisher: Amuedo and Ivey  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B48 County: **BOULDER** Date: 7/1975  
Author: ATEC Associates, Inc. (Greg D. Sherman)  
Title: Geotechnical Engineering Investigation - Centaur Village Filing #7  
Availability: Colorado Geological Survey  
Mine Name(s): Hecla, Big Lake  
Location: 1 S 69 W 4 Latitude: 39.99358 Longitude: -105.1186  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---



MSIC Report #: B49 County: **BOULDER** Date: 5/1985  
Author: Deuel and Associates  
Title: Subsidence Potential Study of 6-Acre Proposed Development Site in Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Rex No. 2 (Hecla No. 2 previously)  
Location: 1 S 69 W NE 9 Latitude: 39.98514 Longitude: -105.1162  
Publisher: Deuel and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B50 County: **BOULDER** Date: 4/1985  
Author: Deuel and Associates  
Title: Subsidence Potential Study of Proposed Development Site on Property Located in Lafayette, Colorado (Marcus Properties)  
Availability: Colorado Geological Survey  
Mine Name(s): Mitchell, Simpson  
Location: 1 N 69 W 35 Latitude: 40.00754 Longitude: -105.0838  
Publisher: Deuel and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B51 County: **BOULDER** Date: 2/1986  
Author: ATEC Associates, Inc. (Greg D. Sherman)  
Title: Lafayette City Center Geotechnical Investigation  
Availability: Colorado Geological Survey  
Mine Name(s): Strathmore  
Location: 1 S 69 W SW 2 Latitude: 39.99048 Longitude: -105.0858  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B52 County: **BOULDER** Date: 6/1986  
Author: ATEC Associates, Inc. (Christopher W. Bittner)  
Title: Subsidence Investigation, Enclave Subdivision, Louisville, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Matchless (in vicinity)  
Location: 1 S 69 W SE 12 Latitude: 39.97396 Longitude: -105.0552  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B53 County: **BOULDER** Date: 11/1996  
Author: ATEC Associates, Inc. (Christopher W. Bittner and Barry D. Siel)  
Title: Subsidence and Preliminary Geotechnical Engineering Investigation, Lafayette Park Subdivision, Phase II, Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Mitchell  
Location: 1 N 69 W NW 35 Latitude: 40.0111 Longitude: -105.0886  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B54 County: **BOULDER** Date: 5/1987  
Author: ATEC Associates, Inc. (Greg D. Sherman)  
Title: The Grove at Harper Lake Subdivision, Louisville, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Matchless  
Location: 1 S 69 W NW 7 Latitude: 39.9814 Longitude: -105.1588  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B55 County: **BOULDER** Date: 11/1987  
Author: ATEC Associates, Inc. (Greg D. Sherman)  
Title: Subsidence Engineering Investigation, Centennial Valley PUD: Centennial Valley Subdivisions 4,6,7,8 and the Grove at Harper Lake  
Availability: Colorado Geological Survey  
Mine Name(s): Matchless, Fireside  
Location: 1 S 69 W SW 7 Latitude: 39.97593 Longitude: -105.1611  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B56 County: **BOULDER** Date: 11/1987  
Author: CTL/Thompson (Mark A. Roenfeldt)  
Title: Evaluation of Subsidence Potential, Rock Creek Ranch Development, Superior, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Industrial, Monarch No. 2  
Location: 1 S 69 W 19 Latitude: 39.94085 Longitude: -105.1501  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B57 County: **BOULDER** Date: 1/1985  
Author: ATEC Associates, Inc. (Greg D. Sherman)  
Title: Subsidence Investigation, Countryside Village, Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Strathmore  
Location: 1 S 69 W SE 3 Latitude: 39.98782 Longitude: -105.0916  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B58 County: **BOULDER** Date: 12/1985  
Author: ATEC Associates, Inc. (Greg D. Sherman)  
Title: Subsidence Investigation, Lafayette Business Park, Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Hi-Way  
Location: 1 S 69 W 14 Latitude: 39.96505 Longitude: -105.0813  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B59 County: **BOULDER** Date: 5/1986  
Author: Dames & Moore  
Title: Boulder County Subsidence Investigation, Volumes I, II, III, IV, V  
Availability: Colorado Geological Survey  
Mine Name(s): Multiple mines  
Location: 1 S 68 W Latitude: 40.00052 Longitude: -105.0544  
Publisher: Dames & Moore  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B60 County: **BOULDER** Date: 2/1986  
Author: ATEC Associates, Inc. (Greg D. Sherman)  
Title: Subsidence Investigation, Saddleback Subdivision, Louisville, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Matchless, Fireside  
Location: 1 S 69 W NE 7 Latitude: 39.98144 Longitude: -105.154  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B61 County: **BOULDER** Date: 2/1984  
Author: Tierra Consultants, Inc.  
Title: Addendum to Subsidence Potential Study on Eighteen Acres Located in the Centennial Valley I Subdivision, Louisville, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Leader  
Location: 1 S 69 W NW 17 Latitude: 39.97155 Longitude: -105.1384  
Publisher: Tierra Consultants  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B62 County: **BOULDER** Date: 1995  
Author: Western Environment and Ecology, Inc. (Greg D. Sherman)  
Title: Mine Subsidence Investigation, Boulder Valley Public Schools, Louisville K-12 Campus, Louisville, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Old Centennial  
Location: 1 S 69 W NW 20 Latitude: 39.95345 Longitude: -105.146  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B63 County: **BOULDER** Date: 2001  
Author: Western Environment and Ecology, Inc. (Michael R. Dannecker)  
Title: Mine Subsidence Investigation, Wiggett Subdivision, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Longs Peak  
Location: 1 N 69 W NE 13 Latitude: 40.0532 Longitude: -105.0579  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B64 County: **BOULDER** Date: 1986  
Author: ATEC Associates, Inc. (Christopher W. Bittner)  
Title: Louisville Mine Shaft  
Availability: Colorado Geological Survey  
Mine Name(s): Louisville  
Location: 1 S 69 W 7 Latitude: 39.97964 Longitude: -105.1564  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B66 County: **BOULDER** Date: 1987  
Author: ATEC Associates, Inc.  
Title: Subsidence Investigation, The Grove at Hilltop Subdivision, Louisville, Colorado  
Availability:  
Mine Name(s): Matchless  
Location: 1 S 69 W 7 Latitude: 39.97964 Longitude: -105.1564  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B67 County: **BOULDER** Date: 1988  
Author: CTL/Thompson (Mark A. Roenfeldt)  
Title: Evaluation of Subsidence Potential, Ostdiek Parcel, Superior, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Crown  
Location: 1 S 70 W SW 13 Latitude: 39.9613 Longitude: -105.18  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B68 County: **BOULDER** Date: 1997  
Author: Western Environment and Ecology, Inc. (Greg D. Sherman)  
Title: Mine Subsidence Investigation, Lafayette City Center  
Availability: Colorado Geological Survey  
Mine Name(s): Strathmore  
Location: 1 S 69 W SW 2 Latitude: 39.98871 Longitude: -105.0882  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B69 County: **BOULDER** Date: 1992  
Author: Seacor (Greg D. Sherman)  
Title: Subsidence Engineering Investigation, Indian Peaks Subdivision Filing 2, Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Paramount  
Location: 1 N 69 W 3 Latitude: 40.08007 Longitude: -105.1026  
Publisher: Seacor  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B70 County: **BOULDER** Date: 2000  
Author: Western Environment and Ecology, Inc. (Michael R. Dannecker)  
Title: Mine Subsidence Investigation, Schmidt Property, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Longs Peak  
Location: 1 N 69 W NW 13 Latitude: 40.05238 Longitude: -105.0663  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B71 County: **BOULDER** Date: 2000  
Author: Western Environment and Ecology, Inc. (Greg D. Sherman)  
Title: Mine Subsidence Investigation, Creekside Property, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Northrup, Chase  
Location: 1 N 69 W SE 13 Latitude: 40.04768 Longitude: -105.0602  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B72 County: **BOULDER** Date: 1997  
Author: GTG Geotechnical Services, Ltd. (Hui S. Liang)  
Title: Subsidence Evaluation: The Terraces on Coal Creek, Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Vulcan  
Location: 1 S 69 W NW 11 Latitude: 39.98122 Longitude: -105.0858  
Publisher: GTG Geotechnical Services, Ltd.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B73 County: **BOULDER** Date: 7/2005  
Author: Western Environment and Ecology, Inc. (Brian R. Partington)  
Title: Osprey Valley Development, Mine Subsidence Investigation Addendum  
Availability: Colorado Geological Survey  
Mine Name(s): Longs Peak  
Location: 1 N 69 W 13 Latitude: 40.05122 Longitude: -105.0649  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---



MSIC Report #: B74 County: **BOULDER** Date: 1996  
Author: Western Environment and Ecology, Inc. (Greg D. Sherman)  
Title: Mine Subsidence Investigation, Baseline Crossing  
Availability: Colorado Geological Survey  
Mine Name(s): Black Diamond No. 2  
Location: 1 N 69 W SE 34 Latitude: 40.00203 Longitude: -105.1004  
Publisher: Western Environment and Ecology  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B75 County: **BOULDER** Date: 4/1997  
Author: GTG Geotechnical Services, Ltd. (Hui S. Liang)  
Title: Subsidence Evaluation, The Terraces On Coal Creek, Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Vulcan  
Location: 1 S 69 W NW 11 Latitude: 39.98146 Longitude: -105.0882  
Publisher: GTG Geotechnical Services, Ltd.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B76 County: **BOULDER** Date: 2000  
Author: sent by Elizabeth Sayre  
Title: Shaft Closure of Standard Mine  
Availability: Colorado Geological Survey  
Mine Name(s): Standard  
Location: 1 N 69 W SE 14 Latitude: 40.04941 Longitude: -105.0815  
Publisher:  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B77 County: **BOULDER** Date: 1996  
Author: CTL/Thompson (Mark G. Gray)  
Title: Letter regarding the sealing of the Tynon Mine air shaft  
Availability: Colorado Geological Survey  
Mine Name(s): Tynon  
Location: 1 N 69 W NE 24 Latitude: 40.04207 Longitude: -105.0578  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B78 County: **BOULDER** Date: 2007  
Author: Professional Service Industries, Inc. (PSI) (James W. Niehoff and Ryan Lepro)  
Title: Report of Mine Subsidence Study, Proposed Schmidt Property, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Longs Peak  
Location: 1 N 69 W NE 13 Latitude: 40.05496 Longitude: -105.0602  
Publisher: Professional Service Industries, Inc. (PSI)  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B79 County: **BOULDER** Date: 1991  
Author: Weston Designers/Consultants (E.P. Carver and Greg D. Sherman)  
Title: Subsidence Engineering Investigation, Proposed Single Family Residential Development, Cherrywood II and The Village at Cherrywood II, Louisville, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Matchless  
Location: 1 S 69 W SW 7 Latitude: 39.97137 Longitude: -105.1624  
Publisher: Weston Designers/Consultants  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B80 County: **BOULDER** Date: 1997  
Author: ATEC Associates, Inc. (Christopher W. Bittner, Barry D. Siel, and Steven C. Kuehr)  
Title: Preliminary Subsidence and Preliminary Geotechnical Engineering Investigation (Volume I), Country Meadows PUD, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Chase, Cleveland, MacGregor, Marfel, Northrup, Tyson  
Location: 1 N 69 W SE 13 Latitude: 40.04217 Longitude: -105.0626  
Publisher: ATEC Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B81 County: **BOULDER** Date: 2008  
Author: Western Environment and Ecology, Inc. (Greg D. Sherman)  
Title: Mine Subsidence Investigation: Lumry Estate Property - Section 24, Township 1 North, Range 69 West, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Stewart, Lister, Garfield  
Location: 1 N 69 W NE 24 Latitude: 40.03843 Longitude: -105.0578  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B82 County: **BOULDER** Date: 2007  
Author: Professional Service Industries, Inc. (PSI) (James W. Niehoff and Bryan K. Simpson)  
Title: Report of Mine Subsidence Study, Proposed Ranchwood Senior Community, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Stewart, Lister, Garfield  
Location: 1 N 69 W NE 24 Latitude: 40.04028 Longitude: -105.0602  
Publisher: Professional Service Industries, Inc. (PSI)  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B83 County: **BOULDER** Date: 1984  
Author: Tierra Consultants, Inc.  
Title: Coal Creek Station, Hole Location Map and Strain Contour Map  
Availability: Colorado Geological Survey  
Mine Name(s): Hecla No. 1, Hecla No. 2, Rex No. 1, Rex No. 1  
Location: 1 S 69 W NW 9 Latitude: 39.98329 Longitude: -105.1233  
Publisher: Tierra Consultants  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B84 County: **BOULDER** Date: 2008  
Author: Professional Service Industries, Inc. (PSI) (James W. Niehoff and Ryan Lepro)  
Title: Supplemental Report, Mine Subsidence Evaluation, Proposed Ranchwood Senior Community, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Lister, Stewart, Garfield  
Location: 1 N 69 W NE 24 Latitude: 40.04029 Longitude: -105.0602  
Publisher: Professional Service Industries, Inc. (PSI)  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B85 County: **BOULDER** Date: 2009  
Author: CTL/Thompson (William D. Rethamel)  
Title: Supplemental Subsidence Investigation, Proposed St. Luke Orthodox Christian Church, Canyon Creek Subdivision, Filing 6, Parcel D, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): McGregor  
Location: 1 N 69 W 24 Latitude: 40.03669 Longitude: -105.065  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B86 County: **BOULDER** Date: 1982  
Author: Fox Consulting Engineers and Geologists (Paul V. Rosasco)  
Title: Subsidence Evaluation at Helios Station, a Part of the Southwest 1/4 of Section 35, T1N, R69W, Lafayette, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Simpson  
Location: 1 N 69 W SW 35 Latitude: 40.00387 Longitude: -105.0886  
Publisher: Fox Consulting Engineers and Geologists  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B87 County: **BOULDER** Date: 1983  
Author: Stephen B. Roberts, USGS Administrative Report to the Office of Surface Mining  
Title: Report of Geophysical Logging in Marshall Coal Area, Boulder County, Colorado During 1982 (preliminary)  
Availability: Colorado Geological Survey  
Mine Name(s): Marshall  
Location: 1 S 70 W 21 Latitude: 39.94993 Longitude: -105.2317  
Publisher: U.S. Department of the Interior: Geological Survey (USGS)  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B88 County: **BOULDER** Date: 1972  
Author: Unknown  
Title: Marshall Area Abandoned Underground Coal Mines Project: Davidson Ditch Mine Fire Subsidence  
Availability: Colorado Geological Survey  
Mine Name(s): Lewis No. 1, Lewis No. 2  
Location: 1 S 70 W 21 Latitude: 39.94993 Longitude: -105.2317  
Publisher: Unknown  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B89 County: **BOULDER** Date: 1979  
Author: Clint Huntington  
Title: Inspection: Marshall Dam C-491, W. Div. 1; W. Dist. 6  
Availability: Colorado Geological Survey  
Mine Name(s): Gorham  
Location: 1 S 70 W NE 22 Latitude: 39.95367 Longitude: -105.2083  
Publisher: Unknown  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B90 County: **BOULDER** Date: 1977  
Author: Boulder Daily Camera  
Title: Various newspaper articles: Sherwood II Inspection Records Missing; Lafayette Seeking Grant for Sherwood Repairs; Owners Stuck in Townhouse Calamity; Shoddy Work on Townhouses Could Have Been Prevented  
Availability: Colorado Geological Survey, Boulder Camera  
Mine Name(s): Vulcan?  
Location: 1 S 69 W NW 11 Latitude: 39.98325 Longitude: -105.0858  
Publisher: Boulder Daily/Sunday Camera  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: B91 County: **BOULDER** Date: 2009  
Author: Western Environment and Ecology, Inc. (Greg D. Sherman)  
Title: Mine Subsidence Investigation: Proposed Elementary School #26, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Chase, Tynon  
Location: 1 N 69 W SW 13 Latitude: 40.04769 Longitude: -105.0698  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---



MSIC Report #: BW3 County: **BOULDER/WELD** Date: 1939  
Author: Colorado State Planning Commission  
Title: Northern Coal Field, Boulder and Weld Counties  
Availability: Colorado Geological Survey  
Mine Name(s): All BO, WE mines  
Location: Latitude: 39.9646 Longitude: -105.2131  
Publisher: Colorado State Planning Commission  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: BW4 County: **BOULDER/WELD** Date: 1975  
Author: A.R. Myers, J.B. Hansen, R.A. Lindvall, J.B. Ivey, and J.L. Hynes  
Title: Coal Mine Subsidence and Land Use in the Boulder-Weld Coalfield, Boulder and Weld Counties, Colorado  
Availability: Colorado Geological Survey, publication EG-9  
Mine Name(s): All BO, WE mines  
Location: 1 N 67 W Latitude: 40.05458 Longitude: -105.1173  
Publisher: Colorado Geological Survey EG-9, Amuedo & Ivey  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: BW5 County: **BOULDER/WELD** Date: 2001  
Author: S.B. Roberts, J.L. Hynes, and C.L. Woodward  
Title: Maps Showing the Extent of Mining, Mine Shaft and Adit Locations, Bedrock Faults, and Thickness of Overburden above Abandoned Coal Mines in the Boulder-Weld Coal Fields  
Availability: Colorado Geological Survey, USGS  
Mine Name(s): All BO, WE mines  
Location: 1 N 67 W Latitude: 40 Longitude: -105  
Publisher: U.S. Department of the Interior: Geological Survey (USGS), Publication I-2735  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---



MSIC Report #: D1 County: **DOLORES** Date: 1995  
Author: Chris Wilbur and Douglas Bradley  
Title: Documentation for Hazard and Constraint Maps, Town of Rico, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Atlantic Cable, Van Winkel, George Hicks  
Location: Latitude: 37.69467 Longitude: -108.0323  
Publisher: Chris Wilbur, Douglas Bradley  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E1 County: **EL PASO** Date: 1967  
Author: Colorado Springs Planning Department  
Title: Mining Report, Colorado Springs Coal Field, A Guide for Future Land Use  
Availability: Colorado Geological Survey; Pikes Peak Area Council of Governments  
Mine Name(s): Multiple mines  
Location: 13 S 66 W 20 Latitude: 38.904 Longitude: -104.8038  
Publisher: City of Colorado Springs  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E2a County: **EL PASO** Date: 1982  
Author: CTL/Thompson  
Title: Evaluation of Subsidence Potential, Ravencrest Subdivision, Woodmen Road and Rockrimmon Boulevard, Colorado Springs, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview, Carlton  
Location: 13 S 66 W SE 7 Latitude: 38.92933 Longitude: -104.817  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E2b County: **EL PASO** Date: 11/1983  
Author: CTL/Thompson  
Title: Subsidence Evaluation, Lots 3, 7, 8 and 9, Block 4, Rockrimmon Cliffs Subdivision, Colorado Springs, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 66 W SW 18 Latitude: 38.91304 Longitude: -104.8241  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E3 County: **EL PASO** Date: 1973  
Author: Dames & Moore  
Title: Geologic Considerations, Rockrimmon Dam and Reservoir Site, Colorado Springs, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 66 W 18 Latitude: 38.91823 Longitude: -104.8311  
Publisher: Dames and Moore  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E4 County: **EL PASO** Date: 1981  
Author: Lincoln Devore  
Title: Preliminary Surface Soils Investigation, Pikeview Mine Portal Area, Colorado Springs, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 66 W SW 18 Latitude: 38.91666 Longitude: -104.8241  
Publisher: Lincoln DeVore  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E5 County: **EL PASO** Date: 1967  
Author: Woodward Clyde, Sherard and Associates  
Title: Effects of Underground Mine on Land Development, Pikeview Mine Area  
Availability:  
Mine Name(s): Pikeview  
Location: 13 S 66 W 18 Latitude: 38.91823 Longitude: -104.8311  
Publisher: Woodward Clyde, Sherard and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E7 County: **EL PASO** Date: 7/1983  
Author: Rocky Mountain Geotechnical  
Title: Mine Subsidence Investigation, Cragmoor Properties, El Paso County, Colorado  
Availability: Colorado Geological Survey; Colorado Division of Reclamation Mining & Safety  
Mine Name(s): Corley, Busy Bee, Patterson  
Location: 13 S 66 W SE 29 Latitude: 38.88224 Longitude: -104.7987  
Publisher: Rocky Mountain Geotechnical  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E8 County: **EL PASO** Date: 1984  
Author: CTL/Thompson (Richard Phillips, Darrel Holmquist)  
Title: Evaluation of Subsidence Potential, Saddle Ridge and Shave/Black Parcels, Pikeview Mine  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 67 W 13 Latitude: 38.92014 Longitude: -104.8334  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E9 County: **EL PASO** Date: 1/1983  
Author: Rocky Mountain Geotechnical (Ken Myers)  
Title: Subsurface Soils Investigation, First West Group  
Availability: Colorado Geological Survey; Colorado Division of Reclamation Mining & Safety  
Mine Name(s): Busy Bee, Corley, Patterson  
Location: 13 S 66 W NE 32 Latitude: 38.88224 Longitude: -104.7987  
Publisher: Rocky Mountain Geotechnical  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E10 County: **EL PASO** Date: 9/1983  
Author: Rocky Mountain Geotechnical  
Title: Subsidence Investigation, Alex Patterson Mine  
Availability: Colorado Geological Survey; Colorado Division of Reclamation Mining & Safety  
Mine Name(s): Alex Patterson  
Location: 13 S 67 W SW 11 Latitude: 38.92756 Longitude: -104.8613  
Publisher: Rocky Mountain Geotechnical  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E11 County: **EL PASO** Date: 11/1983  
Author: Rocky Mountain Geotechnical  
Title: 2822 Country Club Circle, Abandoned Mine Subsidence Investigation  
Availability: Colorado Geological Survey; Colorado Division of Reclamation Mining & Safety  
Mine Name(s): Rapson  
Location: 13 S 66 W 33 Latitude: 38.87501 Longitude: -104.7848  
Publisher: Rocky Mountain Geotechnical  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E12                      County: **EL PASO**                      Date: 7/1983  
Author: Rocky Mountain Geotechnical  
Title: Mine Subsidence Report, 2858 Country Club Place, Colorado Springs, Colorado  
Availability: Colorado Geological Survey; Colorado Division of Reclamation Mining & Safety  
Mine Name(s): Rapson  
Location: 13 S    66 W    SW 33    Latitude: 38.87135    Longitude: -104.7895  
Publisher: Rocky Mountain Geotechnical  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
Structure maps:     Other:

---

MSIC Report #: E13                      County: **EL PASO**                      Date: 1/1984  
Author: Rocky Mountain Geotechnical  
Title: Mine Subsidence Analysis, Easternmost Portion of University Commons, Colorado Springs, Colorado  
Availability: Colorado Geological Survey, Colorado Division of Reclamation Mining & Safety  
Mine Name(s): Corley No. 3  
Location: 13 S    66 W    SE 29    Latitude: 38.88224    Longitude: -104.7987  
Publisher: Rocky Mountain Geotechnical  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
Structure maps:     Other:

---

MSIC Report #: E14                      County: **EL PASO**                      Date: 4/1984  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential Study, Rockrimmon Property  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S    67 W                      13    Latitude: 38.91819    Longitude: -104.8403  
Publisher: Tierra Consultants  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
Structure maps:     Other:

---

MSIC Report #: E15 County: **EL PASO** Date: 6/1984  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential Study, Rockrimmon-Sommerset  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 67 W 13 Latitude: 38.91819 Longitude: -104.8403  
Publisher: Tierra Consultants  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E16 County: **EL PASO** Date: 1984  
Author: Lincoln Devore Testing Laboratory, Inc.  
Title: Subsidence Evaluation, Proposed North Pointe Center, and Subsidence Evaluation Addendum  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 66 W SW 18 Latitude: 38.91666 Longitude: -104.8241  
Publisher: Lincoln DeVore  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E17 County: **EL PASO** Date: 1984  
Author: Michael Baker, Jr.  
Title: Colorado Springs Land Use and Building Code Project  
Availability: Colorado Division of Reclamation Mining & Safety; Office of Surface Mining; Colorado Springs Planning Department.  
Mine Name(s): Multiple mines  
Location: 13 S 66 W Latitude: 38.86789 Longitude: -104.8307  
Publisher: U.S. Department of the Interior: Office of Surface Mining  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E18 County: **EL PASO** Date: 4/1955  
Author: Douglas, Corey & Fisk  
Title: Report on Surface Settlement of the Rangeview Subdivision  
Availability: Colorado Geological Survey  
Mine Name(s): Curtis, City Coal Mine No. 1, Williams, Williamsville, New Altitude and Danville  
Location: 13 S 66 W S 29 Latitude: 38.88581 Longitude: -104.8033  
Publisher: Douglas, Corey & Fisk  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E19 County: **EL PASO** Date: 3/1985  
Author: Dames & Moore  
Title: Colorado Springs Subsidence Investigation - Executive Summary, Volume 1, 2, 3 & 4  
Availability: Colorado Geological Survey; Colorado Division of Reclamation Mining & Safety; City of Colorado Springs Planning Department; Penrose Regional Library, Colorado Springs  
Mine Name(s): Multiple mines  
Location: 13 S 66 W Latitude: 38.91121 Longitude: -104.7755  
Publisher: Colorado Mined Land Reclamation Division, Inactive Mine Reclamation Program  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E20 County: **EL PASO** Date: 2002  
Author: Goodson & Associates, Inc.  
Title: Mine Subsidence Investigation: Proposed Eaglepoint Condominium Complex, Delmonico Dr. at Saddle Mtn. Road, Colorado Springs, El Paso County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 66 W NW 18 Latitude: 38.9221 Longitude: -104.8264  
Publisher: Goodson & Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E21 County: **EL PASO** Date: 2001  
Author: Goodson & Associates, Inc.  
Title: Mine Subsidence Investigation: Proposed Apartment Complex - Delmonico Drive At Rockrimmon Boulevard, Colorado Springs  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 66 W SW 18 Latitude: 38.91486 Longitude: -104.8264  
Publisher: Goodson & Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E22 County: **EL PASO** Date: 1989  
Author: refers to E19 (Dames & Moore report, 1985)  
Title: 6040 Ursa Lane - Subsidence Potential Evaluation  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 66 W 13 Latitude: 38.91859 Longitude: -104.7289  
Publisher:  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E25 County: **EL PASO** Date: 1985  
Author: Goodson & Associates, Inc.  
Title: Country Village Place Development: Colorado Springs, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Patterson  
Location: 13 S 66 W 32 Latitude: 38.87861 Longitude: -104.8079  
Publisher: Goodson & Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---



MSIC Report #: E26 County: **EL PASO** Date: 2005  
Author: CTL/Thompson  
Title: Geologic Hazards Evaluation and Preliminary Geotechnical Investigation, Crown Hill at Rockrimmon  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 67 W NW 13 Latitude: 38.92206 Longitude: -104.845  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E27 County: **EL PASO** Date: 1984  
Author: Vantex Properties  
Title: North Creek I, II, III Subsidence  
Availability:  
Mine Name(s): Pikeview  
Location: 13 S 66 W SE 18 Latitude: 38.91485 Longitude: -104.8172  
Publisher: Vantex Properties  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E28 County: **EL PASO** Date: 1984  
Author: Rocky Mountain Geotechnical  
Title: Mine Subsidence Investigation, Cragmoor Property  
Availability: Colorado Geological Survey  
Mine Name(s): Patterson  
Location: 13 S 66 W NW 32 Latitude: 38.8812 Longitude: -104.8034  
Publisher: Rocky Mountain Geotechnical  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E29 County: **EL PASO** Date: 1987  
Author: Geotechnical Consultants, Inc.  
Title: Mine Subsidence Evaluation, Tamarron at Rockrimmon Subdivision  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 67 W 13 Latitude: 38.91819 Longitude: -104.8403  
Publisher: Geotechnical Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E30a County: **EL PASO** Date: 1992  
Author: Huntingdon  
Title: Coal Mine Subsidence Hazard Study, Palmer Bluffs Subdivision  
Availability: Colorado Geological Survey  
Mine Name(s): City No. 3, City No. 2, and Rapson  
Location: 13 S 66 W 28 Latitude: 38.88223 Longitude: -104.7848  
Publisher: Huntingdon  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E30b County: **EL Paso** Date: 1993  
Author: Huntingdon  
Title: Phase II Coal Mine Subsidence Hazard Study, Palmer Bluffs (St. Andrews) Subdivision  
Availability: Colorado Geological Survey  
Mine Name(s): City No. 2, City No. 4, Rapson, Gray Air  
Location: 13 S 66 W 28 Latitude: 38.88223 Longitude: -104.7848  
Publisher: Huntingdon  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E31 County: **EL PASO** Date: 2001  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Sunset Villas Patio Homes, Rockrimmon Addition  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 67 W SW 13 Latitude: 38.91481 Longitude: -104.8449  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E32a County: **EL Paso** Date: 1984  
Author: CTL/Thompson  
Title: Evaluation of Subsidence Potential, Saddle Ridge and Shave/Black Parcels; Soils and Foundation Investigation, Saddle Ridge Subdivision  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 67 W E 13 Latitude: 38.91846 Longitude: -104.8358  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E32b County: **EL PASO** Date: 1994  
Author: CTL/Thompson  
Title: Soils and Foundation Investigation, Saddle Ridge Subdivision and Tamarron at Rockrimmon Subdivision  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 67 W 13 Latitude: 38.91819 Longitude: -104.8403  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E33 County: **EL PASO** Date: 1985  
Author: Lincoln DeVore  
Title: Geotechnical Report, Potential Subsidence, Westmoreland and Hancock Ave., Colorado Springs, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Danville, Climax II, William Suille, Curtis  
Location: 13 S 66 W SW 29 Latitude: 38.88581 Longitude: -104.8033  
Publisher: Lincoln DeVore, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E34 County: **EL PASO** Date: 1999  
Author: CTL/Thompson  
Title: Geologic Hazards Evaluation, Rockrimmon Vista, Rockrimmon Drive South, East of Fence Post Drive, Colorado Springs, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 66 W 18 Latitude: 38.91823 Longitude: -104.8311  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E36 County: **EL PASO** Date: 1993  
Author: Douglas C. Peters  
Title: Can Lineaments Be Used to Evaluate AML Subsidence Potential?: Case Study for Colorado Springs, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Rockrimmon, Cragmor-Country Club, Palmer Park, Rustic Hills  
Location: Latitude: 38.81136 Longitude: -104.854  
Publisher: Abandoned Mine Land Division, Wyoming Dept. of Environmental Quality & The City of Rock Springs, WY  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E37 County: **EL PASO** Date: 2009  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Viewpoint Senior Living Community, Colorado Springs, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 67 W SW 13 Latitude: 38.91481 Longitude: -104.8449  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E37b County: **EL PASO** Date: 2009  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Viewpoint Senior Living Community, Colorado Springs, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Pikeview  
Location: 13 S 67 W 13 Latitude: 38.91844 Longitude: -104.8403  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E38 County: **EL PASO** Date: 1980  
Author: Lincoln DeVore  
Title: Klondike Mine - Hoist Shaft Collapse Repair  
Availability: Colorado Geological Survey  
Mine Name(s): Klondike  
Location: 13 S 66 W NW 8 Latitude: 39.14 Longitude: -105.71  
Publisher: Lincoln DeVore  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E39 County: **EL PASO** Date: 1980  
Author: Office of Surface Mining - Abandoned Mine Lands Division  
Title: Final Report: Keystone Coal Mine Cave-in No. 2, 2507 Holliday Lane, Colorado Springs, Colorado  
Availability: Colorado Geological Survey; Office of Surface Mining - Abandoned Mine Lands Division  
Mine Name(s): Keystone  
Location: 13 S 66 W NE 4 Latitude: 38.95114 Longitude: -104.7798  
Publisher: U.S. Department of the Interior: Office of Surface Mining, Abandoned Mine Lands Division  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E40 County: **EL PASO** Date: 1979  
Author: Lincoln DeVore  
Title: Subsidence Investigation, Portal Park  
Availability: Colorado Geological Survey; City of Colorado Springs  
Mine Name(s): Busy Bee, Tudor, Curtis  
Location: 13 S 66 W SE 29 Latitude: 38.88332 Longitude: -104.8023  
Publisher: Lincoln DeVore  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E41 County: **EL PASO** Date:  
Author: J.K. Ficklin & Associates  
Title: Close-out Report, Digital Project, El Paso County, Grant 2, Project 17  
Availability: Colorado Geological Survey  
Mine Name(s): Cottonwood, Pitching Vein, Neer, New Cottonwood, Last Chance, unknown 1-4  
Location: 13 S 67 W SE 13 Latitude: 38.91484 Longitude: -104.8357  
Publisher: J.K. Ficklin & Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E41a\_i County: **EL PASO** Date: 1986  
Author: J.K. Ficklin & Associates  
Title: Close-out Report, Digital Project, El Paso County, Grant 2, Project 17  
Availability: Colorado Geological Survey  
Mine Name(s): Cottonwood, Pitching Vein, Neer, New Cottonwood, Last Chance, unknown 1-3  
Location: 13 S 67 W SE 13 Latitude: 38.91484 Longitude: -104.8357  
Publisher: J.K. Ficklin & Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: E42 County: **EL PASO** Date: 2009  
Author: Zapata Incorporated, Blackhawk Division  
Title: Engineering-Geophysical Investigation of Abandoned Underground Mine Workings at the Country Club Circle Site, Colorado Springs, Colorado  
Availability: Colorado Geological Survey; Colorado Division of Reclamation Mining & Safety  
Mine Name(s): Rapson, New Keystone  
Location: 13 S 66 W SW 33 Latitude: 38.87134 Longitude: -104.7895  
Publisher: Zapata Incorporated, Blackhawk Division  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: F1 County: **FREMONT** Date: 1983  
Author: McDermid Engineering Associates, Inc.  
Title: City of Florence, Newlin Creek Waterline Rehabilitation, Feasibility, and Design Report  
Availability:  
Mine Name(s): Canon City  
Location: 20 S 70 W 24 Latitude: 38.28686 Longitude: -105.1716  
Publisher: State of Colorado, Mined Land Reclamation Division  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: G1                      County: **GARFIELD**                      Date: 2010  
Author: Zapata Incorporated, Blackhawk Division  
Title: Engineering-Geophysical Investigation of the IHI Coal Mine Fire Rifle, Colorado  
Availability: Zapata Incorporated, Blackhawk Division; Colorado Geological Survey  
Mine Name(s): IHI  
Location:            5 S      92 W      NE 17            Latitude: 39.62078            Longitude: -107.7352  
Publisher: Zapata Incorporated, Blackhawk Division  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: H1                      County: **HUERFANO**                      Date: 2000  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Evaluation of Approximately 183 Acres in the Northeast One Quarter of Section 18, Township 28 South, Range 66 West, City Ranch II, Tracts 52, 53, 54, 55, and 56, Huerfano County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Walsen, Robinson  
Location:            28 S      66 W      NE 18            Latitude: 37.61349            Longitude: -104.8183  
Publisher: Western Environment and Ecology, Inc.  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: H2                      County: **HUERFANO**                      Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Evaluation of Approximately 183 Acres in the Northeast One Quarter of Section 18, Township 28 South, Range 66 West, City Ranch II, Tracts 52, 53, 54, 55, and 56, Huerfano County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Walsen, Robinson  
Location:            28 S      66 W      NE 18            Latitude: 37.61349            Longitude: -104.8183  
Publisher: Western Environment and Ecology, Inc.  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---



MSIC Report #: H3                      County: **HUERFANO**                      Date: 1984  
Author:                      Robert M. Kirkham and Thomas D. Gillis  
Title:                      Characterization of Selected Coal Waste Piles, Huerfano and Las Animas Counties  
Availability:                      Colorado Geological Survey  
Mine Name(s):                      Multiple mines  
Location:    Latitude: 37.40591                      Longitude: -104.6992  
Publisher:                      State of Colorado, Mined Land Reclamation Division, Inactive Mine Reclamation Program  
Contents:                      Geophysical Logs:                       Lithology logs:                       Cross-sections:                       Mine maps:   
    Structure maps:                       Other:

---

MSIC Report #: J1                      County: **JEFFERSON**                      Date: 1981  
Author:                      Amuedo and Ivey  
Title:                      Phase I Subsidence Investigation, Virginia Mine, South Garrison St. and Ken Caryl Rd., Jefferson County, Colorado  
Availability:                      Jefferson County Planning & Zoning Dept.  
Mine Name(s):                      Virginia  
Location:                      5 S      69 W                      34                      Latitude: 39.57338                      Longitude: -105.1007  
Publisher:                      Amuedo and Ivey  
Contents:                      Geophysical Logs:                       Lithology logs:                       Cross-sections:                       Mine maps:   
    Structure maps:                       Other:

---

MSIC Report #: J2                      County: **JEFFERSON**                      Date: 1981  
Author:                      Amuedo and Ivey  
Title:                      Phase II Subsidence Investigation, Virginia Mine, South Garrison St. and Ken Caryl Rd., Jefferson County, Colorado  
Availability:                      Colorado Geological Survey; Jefferson County  
Mine Name(s):                      Virginia  
Location:                      5 S      69 W                      34                      Latitude: 39.57338                      Longitude: -105.1007  
Publisher:                      Amuedo and Ivey  
Contents:                      Geophysical Logs:                       Lithology logs:                       Cross-sections:                       Mine maps:   
    Structure maps:                       Other:

---

MSIC Report #: J3 County: **JEFFERSON** Date: 1982  
Author: Amuedo and Ivey  
Title: Mine Subsidence Investigation, Virginia Mine, Jefferson County, Colorado, Vol. 1&2  
Availability: Colorado Geological Survey; Colorado Division of Reclamation Mining & Safety; Jefferson County  
Mine Name(s): Virginia  
Location: 5 S 69 W NE 34 Latitude: 39.57708 Longitude: -105.0961  
Publisher: Jefferson County  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J4 County: **JEFFERSON** Date: 1981  
Author: Chen and Associates  
Title: Foundation Recommendations in Areas of Potential Ground Subsidence, Albertson's Food Center #8-P, Ken Caryl Rd. and Garrison Street, Jefferson County, Colorado  
Availability: Jefferson County  
Mine Name(s): Virginia  
Location: 5 S 69 W 34 Latitude: 39.57338 Longitude: -105.1007  
Publisher: Chen and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J5 County: **JEFFERSON** Date: 1981  
Author: CTL/Thompson  
Title: Evaluation of Subsidence Potential, Coal Mine West Project, Coal Mine Rd. and Kipling St., Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Economy (Unity)  
Location: 5 S 69 W SE 21 Latitude: 39.59701 Longitude: -105.1125  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J6 County: **JEFFERSON** Date: 1983  
Author: CTL/Thompson  
Title: Evaluation of Subsidence Potential, Coal Mine Road Alignment, Coal Mine Road and Kipling Street, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Economy (Unity)  
Location: 5 S 69 W SE 21 Latitude: 39.59882 Longitude: -105.1148  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J7 County: **JEFFERSON** Date: 1982  
Author: CTL/Thompson  
Title: Subsidence Potential of the Area Between the Littleton and Economy Mines, Coal Mine Rd. and Kipling Street, Jefferson County, Colorado  
Availability: Colorado Geological Survey; Jefferson County  
Mine Name(s): Economy (Unity), Littleton (Christenson)  
Location: 5 S 69 W NE 28 Latitude: 39.59156 Longitude: -105.1149  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J8 County: **JEFFERSON** Date: 1983  
Author: Dames & Moore  
Title: Report, Northern End of the Economy Mine Subsidence Hazard Study, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Economy (Unity)  
Location: 5 S 69 W SE 21 Latitude: 39.59882 Longitude: -105.1148  
Publisher: Dames and Moore  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J9 County: **JEFFERSON** Date: 1983  
Author: Dames & Moore  
Title: Report, Rubey Clay-Mine Subsidence Hazard Study, Golden, Colorado  
Availability: Colorado Geological Survey; City of Golden; Jefferson County  
Mine Name(s): Old Loveland, New Loveland, New White Ash, New Mine  
Location: 3 S 70 W 28 Latitude: 39.7616 Longitude: -105.2311  
Publisher: Dames and Moore  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J10 County: **JEFFERSON** Date: 1972  
Author: F.M. Fox and Associates, Inc.  
Title: Subsidence Evaluation, SE 1/4 of the NW 1/4, Section 27, Township 5 South, Range 69 West, Jefferson County, Colorado  
Availability: Colorado Geological Survey; Jefferson County Planning & Zoning Dept.  
Mine Name(s): Littleton (Christenson)  
Location: 5 S 69 W NW 27 Latitude: 39.58974 Longitude: -105.1031  
Publisher: F.M Fox and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J10a County: **JEFFERSON** Date: 1980  
Author: U.S. Dept. of the Interior: Office of Surface Mining and Enforcement  
Title: Capping of Mine Shaft, Littleton Mine Project, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Littleton (Christenson)  
Location: 5 S 69 W SW 27 Latitude: 39.5861 Longitude: -105.1078  
Publisher: U.S. Department of the Interior: Office of Surface Mining and Enforcement  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J10b                      County: **JEFFERSON**                      Date: 1980  
Author: Bennett H. Young  
Title: Final Report: Littleton Mine Project, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Littleton (Christenson)  
Location:            5 S    69 W    NW 27            Latitude: 39.59156            Longitude: -105.1055  
Publisher: U.S. Department of the Interior: Office of Surface Mining, Abandoned Mine Lands Division  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: J10c                      County: **JEFFERSON**                      Date: 1988  
Author: Fox & Associates of Colorado, Inc.  
Title: Engineering Geology and Preliminary Geotechnical Engineering Evaluation, Proposed Residential Development, SE 1/4 of the NW 1/4 of Section 27, T5S, R69W, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Littleton (Christenson)  
Location:            5 S    69 W    NW 27            Latitude: 39.58974            Longitude: -105.1031  
Publisher: Fox & Associates of Colorado, Inc.  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: J10d                      County: **JEFFERSON**                      Date: 1980  
Author: Chen and Associates  
Title: Subsurface Investigation to Evaluate Mine Subsidence Potential in the Area of the Columbine Jr. High School Football Field and Track  
Availability: Colorado Geological Survey  
Mine Name(s): Littleton (Christenson)  
Location:            5 S    69 W    SW 27            Latitude: 39.58612            Longitude: -105.1031  
Publisher: Chen and Associates  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: J10e                      County: **JEFFERSON**                      Date: 1973  
Author: F.M. Fox and Associates, Inc.  
Title: Subsurface Drilling Investigation of an Existing Coal Mine, Section 27, T5S, R69W, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Littleton (Christenson)  
Location:            5 S    69 W    SW 27            Latitude: 39.58612            Longitude: -105.1031  
Publisher: F.M. Fox and Associates, Inc.  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: J10f                      County: **JEFFERSON**                      Date: 1979  
Author: Chen and Associates  
Title: Coal Mine Subsidence Evaluation, Columbine Junior High School Site, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Littleton (Christenson)  
Location:            5 S    69 W    NW 27            Latitude: 39.58974            Longitude: -105.1031  
Publisher: Chen and Associates  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: J10g                      County: **JEFFERSON**                      Date: 1982  
Author: F.M. Fox and Associates, Inc.  
Title: Engineering Geologic Report, Stony Creek Filing No. 9, a Portion of the S 1/2 of Section 27, T5S, R69W, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Littleton (Christenson)  
Location:            5 S    69 W            27            Latitude: 39.58789            Longitude: -105.1007  
Publisher: F.M. Fox and Associates  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: J11 County: **JEFFERSON** Date: 1977  
Author: F.M. Fox and Associates, Inc.  
Title: Abandoned Coal Mine Review for The Meadows Planned Development, Jefferson County, Colorado  
Availability:  
Mine Name(s): Economy (Unity), Littleton (Christenson), Virginia  
Location: 5 S 69 W 21 Latitude: 39.58789 Longitude: -105.107  
Publisher: F.M. Fox and Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J12 County: **JEFFERSON** Date: 1983  
Author: Goodson & Associates, Inc.  
Title: Virginia Mine Subsidence Hazard Evaluation Project  
Availability: Colorado Geological Survey; Colorado Division of Reclamation Mining & Safety; Jefferson County  
Mine Name(s): Virginia  
Location: 5 S 69 W NE 34 Latitude: 39.57527 Longitude: -105.0985  
Publisher: State of Colorado, Mined Land Reclamation Division  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J13 County: **JEFFERSON** Date: 1984  
Author: J.C. Lucas and C. Russell  
Title: Investigation of Mine Conditions Beneath a Southwest Metropolitan Water and Sanitation District Sewer Line, Virginia Mine, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Virginia  
Location: 5 S 69 W NE 34 Latitude: 39.57527 Longitude: -105.0985  
Publisher: State of Colorado, Mined Land Reclamation Division  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J14 County: **JEFFERSON** Date: 1978  
Author: A.R. Myers, R.A. Lindvall, J.L. Hynes, and J.B. Ivey  
Title: Coal and Clay Mine Hazard Study and Estimated Unmined Coal Resources, Jefferson County, Colorado  
Availability: Colorado Geological Survey; Jefferson County  
Mine Name(s): All Jefferson County mines  
Location: Latitude: 39.72951 Longitude: -105.1521  
Publisher: Jefferson County, prepared by Amuedo and Ivey  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J15 County: **JEFFERSON** Date: 9/1984  
Author: Amuedo and Ivey  
Title: Subsidence Investigation, Littleton Mine, Jefferson County, Colorado  
Availability: Jefferson County Planning Department  
Mine Name(s): Littleton (Christenson)  
Location: 5 S 69 W NW 27 Latitude: 39.59156 Longitude: -105.1055  
Publisher: Amuedo and Ivey  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J16 County: **JEFFERSON** Date: 1982  
Author: Public Service Company of Colorado - Electric Engineering Land Department  
Title: Chatfield Neighborhood Electric Substation and 23,000 Volt Transmission Line  
Availability: Colorado Geological Survey  
Mine Name(s): Economy (Unity), Littleton (Christenson)  
Location: 5 S 69 W NE 28 Latitude: 39.59156 Longitude: -105.1149  
Publisher: Public Service Company of Colorado - Electric Engineering Land Department  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---



MSIC Report #: J17 County: **JEFFERSON** Date: 1983  
Author: CTL/Thompson  
Title: Coal Mine West Project/Subsidence  
Availability: Colorado Geological Survey  
Mine Name(s): Economy (Unity)  
Location: 5 S 69 W SE 21 Latitude: 39.59701 Longitude: -105.1125  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J17a County: **JEFFERSON** Date: 2003  
Author: CTL/Thompson  
Title: Geologic and Preliminary Geotechnical Investigation: Parcel N, South Kipling Parkway and West Coal Mine Avenue, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Economy (Unity)  
Location: 5 S 69 W SE 21 Latitude: 39.59882 Longitude: -105.115  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J17b County: **JEFFERSON** Date: 2001  
Author: CTL/Thompson  
Title: Parcel N, Coal Mine and Kipling Street Subsidence Investigation, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Economy (Unity)  
Location: 5 S 69 W SE 21 Latitude: 39.59882 Longitude: -105.1148  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J17c                      County: **JEFFERSON**                      Date: 2002  
Author: CTL/Thompson  
Title: Presentation Summary for Subsidence Mitigation, Parcel N, Coal Mine and Kipling Street, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Economy (Unity)  
Location:            5 S    69 W    SE 21            Latitude: 39.59882            Longitude: -105.1148  
Publisher: CTL/Thompson  
Contents:            Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                         Structure maps:     Other:

---

MSIC Report #: J17d                      County: **JEFFERSON**                      Date: 1997  
Author: NSA Engineering, Inc.  
Title: Subsidence Investigation, Mitigation and Estimated Cost/Annual Cost/Risk Evaluation for West Coal Mine Avenue Extension  
Availability: Colorado Geological Survey, Jefferson County Public Works  
Mine Name(s): Economy (Unity)  
Location:            5 S    69 W    SE 21            Latitude: 39.59882            Longitude: -105.1148  
Publisher: NSA Engineering, Inc.  
Contents:            Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                         Structure maps:     Other:

---

MSIC Report #: J19                      County: **JEFFERSON**                      Date: 1997  
Author: Amuedo and Ivey  
Title: Mine Subsidence Potential, Leyden Mine  
Availability: Colorado Geological Survey  
Mine Name(s): Leyden  
Location:            2 S    70 W            26            Latitude: 39.84857            Longitude: -105.2126  
Publisher: Amuedo and Ivey  
Contents:            Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                         Structure maps:     Other:

---

MSIC Report #: J20 County: **JEFFERSON** Date: 1996  
Author: CTL/Thompson  
Title: Subsidence Evaluation, Coal Mine Ave. and Kipling St.  
Availability: Colorado Geological Survey  
Mine Name(s): Economy (Unity)  
Location: 5 S 69 W SE 21 Latitude: 39.59701 Longitude: -105.1125  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J21 County: **JEFFERSON** Date: 1972  
Author: Robert W. Thompson, Inc., Consulting Engineer  
Title: Soils and Foundation Investigation, Proposed Subdivision, West Bowles and South Kipling, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s):  
Location: 5 S 69 W SE 21 Latitude: 39.60335 Longitude: -105.1136  
Publisher: Robert W. Thompson, Inc. Consulting Engineer  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J22 County: **JEFFERSON** Date: 1973  
Author: Willard Owens Associates  
Title: Preliminary Ground Water and Engineering Geologic Investigation, Columbine Community, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Economy (Unity)  
Location: 5 S 69 W 21 Latitude: 39.58043 Longitude: -105.1106  
Publisher: Willard Owens Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J23 County: **JEFFERSON** Date: 2004  
Author: Hart Crowser, Inc.  
Title: Mitchell/Golden Subsidence Emergency, 1315 Cody Trail, Golden, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): New Loveland  
Location: 3 S 70 W SW 28 Latitude: 39.7599 Longitude: -105.2322  
Publisher: Hart Crowser, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J24 County: **JEFFERSON** Date: 1973  
Author: F.M. Fox and Associates, Inc.  
Title: Soil Investigation, Columbine Airpark, Jefferson County, Colorado (Stony Creek Subdivision)  
Availability: Colorado Geological Survey, Jefferson County Planning & Zoning Dept.  
Mine Name(s): Littleton (Christenson)  
Location: 5 S 69 W 27 Latitude: 39.58789 Longitude: -105.1007  
Publisher: F.M. Fox and Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J25 County: **JEFFERSON** Date: 2004  
Author: Kleinfelder, Inc. (David H. Adams)  
Title: Sink Hole Evaluation, 1550 West Campus Road, Colorado School of Mines, Golden, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Pittsburg Coal Mine; Parfet Clay Mine  
Location: 3 S 70 W NE 33 Latitude: 39.748 Longitude: -105.2251  
Publisher: Kleinfelder, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J26 County: **JEFFERSON** Date: 1993  
Author: CTL/Thompson  
Title: Grading Plan Review for Canyon Point, Filing 1, Golden, Colorado  
Availability: Colorado Geological Survey, City of Golden  
Mine Name(s): New (Little) White Ash  
Location: 3 S 70 W NE 28 Latitude: 39.76 Longitude: -105.235  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J27 County: **JEFFERSON** Date: 2004  
Author: Rechlitz and Senior, LLC  
Title: Map of Abandoned Coal Mine Areas in Southern Jefferson County, Hillside at Stony Creek  
Availability: Colorado Geological Survey  
Mine Name(s): Economy (Unity)  
Location: 5 S 69 W SE 21 Latitude: 39.5983 Longitude: -105.1121  
Publisher: Rechlitz and Senior, LLC  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J28 County: **JEFFERSON** Date: 1998  
Author: Haley & Aldrich, Inc. (Brad Bauer)  
Title: Final Report: Geotechnical Evaluation of Mine Subsidence Hazard and Mitigation Design, West Coal Mine Avenue Extension (Moore to Kipling)  
Availability: Colorado Geological Survey, Jefferson County Public Works  
Mine Name(s): Economy (Unity)  
Location: Latitude: 39.59342 Longitude: -105.1125  
Publisher: Haley & Aldrich, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J29 County: **JEFFERSON** Date: 2007  
Author: Lynne Yehle, USGS  
Title: Letter - Misc. info on features in historic coal mine area, north to south, part of Sec 16 (T3S, R70W) Golden CO  
Availability:  
Mine Name(s): Multiple mines  
Location: 3 S 70 W 16 Latitude: 39.79054 Longitude: -105.2311  
Publisher: U.S. Department of the Interior: Geological Survey (USGS)  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J30 County: **JEFFERSON** Date: 2001  
Author: Ground Engineering Consultants  
Title: Revised Geologic Reconnaissance and Preliminary Geotechnical Subsurface Exploration Investigation, Proposed Dutch Creek Farms Subdivision, Jefferson County, Colorado  
Availability: Colorado Geological Survey, Jefferson County Planning & Zoning Dept.  
Mine Name(s): Economy (Unity), Littleton (Christenson)  
Location: Latitude: 39.59155 Longitude: -105.1055  
Publisher: Ground Engineering Consultants  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J34 County: **JEFFERSON** Date: 2008  
Author: HP Geotech  
Title: Underground Coal Mine Subsidence Risk Study, Kilgroe Five Lot Commercial Subdivision, Pine Ridge and Brickyard Roads, Golden, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): New Star, New Castle, Old Star  
Location: 3 S 70 W W 21 Latitude: 39.77592 Longitude: -105.2355  
Publisher: HP Geotech  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J35a                      County: **JEFFERSON**                      Date: 2009  
Author: Zapata Incorporated, Blackhawk Division  
Title: DC Resistivity Survey at the Colorado School of Mines, Golden, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Clay mines  
Location:            3 S    70 W    NE 33            Latitude: 39.75087            Longitude: -105.2265  
Publisher: Zapata Incorporated, Blackhawk Division  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: J35b                      County: **JEFFERSON**                      Date: 2008  
Author: Zapata Incorporated, Blackhawk Division (Kanaan Hanna)  
Title: Subsidence Abatement Project at Colorado School of Mines (CSM) Campus in Golden, and Country Club Circle in Colorado Springs  
Availability: Colorado Geological Survey  
Mine Name(s): Clay mines  
Location:            3 S    70 W    NE 33            Latitude: 39.75087            Longitude: -105.2265  
Publisher: Zapata Incorporated, Blackhawk Division  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: J36                      County: **JEFFERSON**                      Date: 2004  
Author: CTL/Thompson  
Title: Subsidence Mitigation Pilot Project Summary Report: Silver Leaf Subdivision, South Kipling Parkway and West Coal Mine Avenue, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Economy (Unity)  
Location:            5 S    69 W    SE 21            Latitude: 39.59882            Longitude: -105.1148  
Publisher: CTL/Thompson  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: J37 County: **JEFFERSON** Date: 1997  
Author: Ameudo and Ivey  
Title: Subsidence Investigation: El Dorado Hills Subdivision, Jefferson County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Leyden  
Location: 2 S 70 W N 35 Latitude: 39.83424 Longitude: -105.1935  
Publisher: Ameudo and Ivey  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J38 County: **JEFFERSON** Date: 1997  
Author: Amuedo and Ivey  
Title: Proposed Revision of Geologic Hazards Overlay, Leyden Mine  
Availability: Colorado Geological Survey  
Mine Name(s): Leyden  
Location: 2 S 70 W 35 Latitude: 39.83424 Longitude: -105.1935  
Publisher: Amuedo and Ivey  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: J39 County: **JEFFERSON** Date: 1979  
Author: David Jenkins, Denver Post Staff Writer  
Title: Children Discover Old Mine Shaft in Stony Creek  
Availability: Colorado Geological Survey, Denver Post  
Mine Name(s): Littleton (Christenson)  
Location: 5 S 69 W SE 21 Latitude: 39.5983 Longitude: -105.1121  
Publisher: The Denver Post  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---



MSIC Report #: J40 County: **JEFFERSON** Date: 1983  
Author: Goodson & Associates, Inc. (R.M. Wood, G.J. Colaizzi, M. Schmidt, Ralph H. Whaite)  
Title: Virginia Mine Subsidence Hazard Evaluation Project  
Availability: Colorado Geological Survey  
Mine Name(s): Virginia  
Location: 5 S 69 W NE 34 Latitude: 39.57708 Longitude: -105.0962  
Publisher: Goodson & Associates, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: LN1 County: **LAS ANIMAS** Date: 2001  
Author: Pioneer Engineering (Carlton E. Gerity)  
Title: Report Concerning the Effects of Abandoned Underground Coal Mining on the Reserve at Fisher Peak  
Availability: Colorado Geological Survey  
Mine Name(s): Eagle, Wilton, Eli Jeffries, Bloom, Hines  
Location: 33 S 68 W NW 29 Latitude: 37.14517 Longitude: -105.0282  
Publisher: Pioneer Engineering  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: P1 County: **PITKIN** Date: 1996  
Author: Nicholas Lampiris, Consulting Geologist  
Title: Carbonate Mill Site - debris flow, rockfall and avalanche hazard assessment, no mining at all. Land use review  
Availability: Colorado Geological Survey  
Mine Name(s):  
Location: 10 S 88 W 4 Latitude: 39.22136 Longitude: -107.2231  
Publisher: Nicholas Lampiris, Consulting Geologist  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: R1 County: **ROUTT** Date: 7/2005  
Author: SubTerra, Inc.  
Title: Draft: Milner Landfill Coal Mine Subsidence Evaluation  
Availability: Colorado Geological Survey  
Mine Name(s): McGregor  
Location: 6 N 83 W SW 16 Latitude: 40.48488 Longitude: -106.7237  
Publisher: SubTerra, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: R2 County: **ROUTT** Date: 2006  
Author: Leyden Coal Company  
Title: HSOC Project Area  
Availability: Colorado Geological Survey  
Mine Name(s): Ben Male, Big Mack, Blue Spruce, Edna, Frank's, Hayden Nos. 1 - 4, Keystone, Moffat Nos. 1 - 3, Oak Hills No. 1 and 2, Pinnacle No. 4, Pinnacle, Postal, Yampa Valley No. 1-3 & 6, Arrowhead, Electric No. 1-3  
Location: Latitude: 40.48375 Longitude: -106.7129  
Publisher: Leyden Coal Company  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W1 County: **WELD** Date: 1981  
Author: Judith L. Hamilton  
Title: Geologic and Hydrologic Report, Proposed Landfill, Sections 20 and 21, T1N R68W, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Boulder Valley No. 1 (Andrew), Columbine  
Location: 1 N 68 W 20 Latitude: 40.03165 Longitude: -105.0213  
Publisher: Judith L. Hamilton, Consulting Geologist and Engineer  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W2 County: **WELD** Date: 1984  
Author: Jeffrey L. Hynes  
Title: Tri-Towns Subsidence Investigation, Weld County, Colorado  
Availability: Colorado Geological Survey; Colorado Division of Reclamation Mining & Safety  
Mine Name(s): Baum, Firestone, Evans, Grant, Sterling, Warwick  
Location: 1 N 67 W 6 Latitude: 40.09481 Longitude: -104.9331  
Publisher: Colorado Division of Mined Land Reclamation, Inactive Mine Program  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W3 County: **WELD** Date: 1983  
Author: Tierra Consultants, Inc.  
Title: Subsidence Potential Study, Dacono property, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Puritan  
Location: 1 N 68 W 3 Latitude: 40.08033 Longitude: -104.9895  
Publisher: Tierra Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W4 County: **WELD** Date: 1980  
Author: Chen and Associates  
Title: Preliminary Engineering Geology, Soils and Coal Mine Subsidence Evaluation for the Harrington Property, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Gradon  
Location: 1 N 68 W 3 Latitude: 40.08033 Longitude: -104.9895  
Publisher: Chen and Assoc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W5 County: **WELD** Date: 1980  
Author: E.O. Church  
Title: Geologic Investigation, Proposed Coufal Residence, 40 Acre Tract, Section 15, T1N, R68W  
Availability: Colorado Geological Survey  
Mine Name(s): Eagle  
Location: 1 N 68 W SW 15 Latitude: 40.05034 Longitude: -104.9943  
Publisher: E.O. Church  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W6 County: **WELD** Date: 1982  
Author: Louis A. Gaz  
Title: Geologic Hazard, Martin Exploration Co.  
Availability: Colorado Geological Survey  
Mine Name(s): Sterling  
Location: 1 N 67 W NW 5 Latitude: 40.08201 Longitude: -104.9216  
Publisher: Louis A. Gaz, Consulting Engineer  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W7 County: **WELD** Date: 3/1985  
Author: Deuel and Associates  
Title: Subsidence Potential, 9 Acres of the Scotts Acres Subdivision  
Availability: Colorado Geological Survey  
Mine Name(s): Morrison  
Location: 1 N 68 W NE 9 Latitude: 40.06937 Longitude: -105.0037  
Publisher: Deuel and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W8 County: **WELD** Date: 3/1985  
Author: Deuel and Associates  
Title: Subsidence Potential Study of 320 Acres Located in Frederick, Colorado for Grant Bros.  
Availability: Colorado Geological Survey  
Mine Name(s): Sterling  
Location: 2 N 67 W 31 Latitude: 40.09483 Longitude: -104.9331  
Publisher: Deuel and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W10 County: **WELD** Date: 1996  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Northwest Quarter Section 2, Township 1 North, Range 68 West, Weld County Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Puritan  
Location: 1 N 68 W NW 2 Latitude: 40.08397 Longitude: -104.9752  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W11 County: **WELD** Date: 1995  
Author: E.O. Church  
Title: Preliminary Report for Geologic Investigation, Proposed Residential Development, Part of NE 1/4 Section 30, T2N, R67W, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Grant  
Location: 2 N 67 W NE 30 Latitude: 40.11304 Longitude: -104.9285  
Publisher: E.O. Church, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W12 County: **WELD** Date: 1995  
Author: E.O. Church  
Title: Geotechnical Investigation and Subsidence Evaluation, Frederick Coal Mine, SE 1/4 Section 25, T2N, R68W, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Frederick  
Location: 2 N 68 W SE 25 Latitude: 40.10588 Longitude: -104.9469  
Publisher: E.O. Church, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W13 County: **WELD** Date: 1996  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Gillespie and Timberland Subdivisions, Firestone, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Grant  
Location: 2 N 67 W NE 30 Latitude: 40.11304 Longitude: -104.9285  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W14 County: **WELD** Date: 1977  
Author: Dames & Moore  
Title: Preliminary drilling investigation of the coal mines in sections 18 and 19 near Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Boulder Valley, North-Western, Garfield, Mitchell, Lehigh, unknown  
Location: 1 N 68 W E 18 Latitude: 40.04388 Longitude: -104.9898  
Publisher: Dames & Moore  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W15 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, East Winds Village Subdivision, Firestone, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Grant  
Location: 2 N 67 W NW 19 Latitude: 40.12765 Longitude: -104.9377  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W16 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Countryside Subdivision, Section 25, T2N, R68W, Weld County, Colorado.  
Availability: Colorado Geological Survey  
Mine Name(s): Frederick  
Location: 2 N 68 W SE 25 Latitude: 40.10588 Longitude: -104.9469  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W17 County: **WELD** Date: 7/2001  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Coal Creek Commons Industrial Park (CCC), Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Mitchell  
Location: 1 N 68 W SW 19 Latitude: 40.03292 Longitude: -105.0508  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W18 County: **WELD** Date: 2007  
Author: Brian H. Reck, C.E.G.  
Title: Initial Geotechnical Assessment, Surface Subsidence along Bonanza Drive North of Highway 7, Erie Colorado  
Availability: Ground Engineering Consultants, Inc.; Colorado Geological Survey  
Mine Name(s): Baseline  
Location: 10 N 68 W SE 31 Latitude: 40.78721 Longitude: -105.0434  
Publisher: Ground Engineering Consultants, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W19 County: **WELD** Date: 2001  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Vista Ridge Development, Sections 32 & 33, T1N, R68W, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Baseline, Columbine  
Location: 1 N 68 W 32 Latitude: 40.00756 Longitude: -105.018  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W20 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, S36, T2N, R68W, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Baum  
Location: 2 N 68 W 36 Latitude: 40.09491 Longitude: -104.9517  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---



MSIC Report #: W21 County: **WELD** Date: 2001  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Sharps Farm, Section 1, T1N, R68W, Dacono, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Boulder Valley No. 3  
Location: 1 N 68 W NE 1 Latitude: 40.08399 Longitude: -104.947  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W22 County: **WELD** Date: 2001  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Saddleback Hill Development, Firestone, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Emerson, Russell  
Location: 2 N 67 W NW 29 Latitude: 40.11835 Longitude: -104.9169  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W23 County: **WELD** Date: 2000  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, 497.55 acres in Section 14, T1N, R68W, Dacono, Colorado (Sweetgrass Subdivision)  
Availability: Colorado Geological Survey  
Mine Name(s): Eagle  
Location: 1 N 68 W 14 Latitude: 40.05125 Longitude: -104.9706  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W24 County: **WELD** Date: 2002  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Pinnacle Farms, 305 acres in Section 2, T1N, R68W, Dacono, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Boulder Valley No. 3  
Location: 1 N 68 W E 2 Latitude: 40.08038 Longitude: -104.9659  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W25 County: **WELD** Date: 2001  
Author: CTL/Thompson  
Title: Subsidence Investigation, Section 36, T2N, R68W, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Baum  
Location: 2 N 68 W 36 Latitude: 40.09491 Longitude: -104.9517  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W26 County: **WELD** Date: 1998  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Richardson Homes (future Wildflower)  
Availability: Colorado Geological Survey  
Mine Name(s): Shamrock, Eureka  
Location: 2 N 68 W 27 Latitude: 40.10961 Longitude: -104.9894  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W27 County: **WELD** Date: 2001  
Author: Western Environment and Ecology Inc.  
Title: Mine Subsidence Investigation: Carlson Annexation; 153 acres in the southwest 1/4 of Section 2, T1N, R68W, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Puritan  
Location: 1 N 68 W SW 2 Latitude: 40.07666 Longitude: -104.9753  
Publisher: Western Environment and Ecology Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W28 County: **WELD** Date: 2004  
Author: NewFields, Inc. (David R Hinrichs)  
Title: Subsidence Analysis for Autumn Valley Ranch Subdivision, Dacono, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Sterling  
Location: 1 N 67 W SW 6 Latitude: 40.07485 Longitude: -104.9357  
Publisher: Newfields  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W29 County: **WELD** Date: 2002  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation: Pacific West Development; 320 acres in the north 1/2 of Section 18, T1N, R67W, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Sterling, Lincoln  
Location: 1 N 67 W 18 Latitude: 40.05112 Longitude: -104.9332  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W30 County: **WELD** Date: 2005  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Evaluation, Lot 8, Scott's Acres, NE 1/4 Section 9, Township 1 North, Range 68 West, Weld County Colorado  
Availability: Western Environment and Ecology, Inc.; Colorado Geological Survey  
Mine Name(s): Morrison  
Location: 1 N 68 W NE 9 Latitude: 40.06936 Longitude: -105.0037  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W31 County: **WELD** Date: 2002  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation: General Land Development Corporation; 82 acres of Section 1, T1N, R68W, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Baum  
Location: 1 N 68 W SE 1 Latitude: 40.07489 Longitude: -104.9494  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W32 County: **WELD** Date: 2003  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation: Proposed Erie High School Site, 60 acres in Section 16, T1N, R68W, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Clayton  
Location: 1 N 68 W 16 Latitude: 40.05107 Longitude: -105.0086  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W33 County: **WELD** Date: 2004  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Summary Report, Erie Commons  
Availability: Colorado Geological Survey  
Mine Name(s): Lehigh, Garfield  
Location: 1 N 68 W 19 Latitude: 40.03644 Longitude: -105.0462  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W34 County: **WELD** Date: 2003  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Evaluation, Wyndham Hill PUD, Sections 33 and 34, Township 2 North, Range 68 West, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Puritan, Shamrock  
Location: 2 N 68 W 33 Latitude: 40.09309 Longitude: -104.9965  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W35 County: **WELD** Date: 2003  
Author: Western Environment and Ecology, Inc.  
Title: Review of Mine Subsidence Related Development Issues, Wildflower Residential Subdivision Filing 1  
Availability:  
Mine Name(s): Shamrock, Eureka  
Location: 2 N 68 W 27 Latitude: 40.10711 Longitude: -104.9878  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W36 County: **WELD** Date: 1998  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Richardson Homes (future Wildflower)  
Availability: Colorado Geological Survey  
Mine Name(s): Shamrock  
Location: 2 N 68 W 27 Latitude: 40.10579 Longitude: -104.9894  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W37 County: **WELD** Date: 3/2002  
Author: CTL/Thompson  
Title: Hidden Creek  
Availability: Colorado Geological Survey  
Mine Name(s): Russell  
Location: 2 N 67 W 29 Latitude: 40.10579 Longitude: -104.9193  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W38 County: **WELD** Date:  
Author: CTL/Thompson  
Title: Subsidence Investigation, Camenish Property  
Availability: Colorado Geological Survey  
Mine Name(s): Russell  
Location: 2 N 67 W 29 Latitude: 40.10575 Longitude: -104.9192  
Publisher: CTL/Thompson  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W39 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, SW and NW Quarter Section 32, Township 2 N, Range 68 W  
Availability: Colorado Geological Survey  
Mine Name(s): Sterling  
Location: 2 N 68 W NW 32 Latitude: 40.09871 Longitude: -105.0321  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W40 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Hart Property  
Availability: Colorado Geological Survey  
Mine Name(s): Sterling  
Location: 1 N 67 W 7 Latitude: 40.06939 Longitude: -104.9333  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W41 County: **WELD** Date: 3/1985  
Author: Deuel and Associates  
Title: Subsidence Potential Study of 320 Acres of the Grant Bros. Property in Frederick  
Availability: Colorado Geological Survey  
Mine Name(s): Sterling  
Location: 2 N 67 W 31 Latitude: 40.09127 Longitude: -104.9286  
Publisher: Deuel and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W42 County: **WELD** Date: 2000  
Author: NewFields, Inc.  
Title: Subsidence Analysis Review, Parcel A, B, C, & D - Starlight Acres, Dacono, CO  
Availability: Colorado Geological Survey  
Mine Name(s): Baum, Sterling  
Location: 1 N 67 W 6 Latitude: 40.07663 Longitude: -104.9286  
Publisher: NewFields, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W43 County: **WELD** Date: 1985  
Author: Deuel and Associates  
Title: Subsidence Potential Study of 320 Acres Located In Frederick, Colorado for Grant Bros., Book I  
Availability: Colorado Geological Survey  
Mine Name(s): Sterling  
Location: 2 N 67 W 31 Latitude: 40.09489 Longitude: -104.9311  
Publisher: Deuel and Associates  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W44 County: **WELD** Date: 2005  
Author: Western Environment and Ecology, Inc.  
Title: Miner's Park Town Centre  
Availability:  
Mine Name(s): Evans  
Location: 2 N 67 W 31 Latitude: 40.09483 Longitude: -104.9331  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---



MSIC Report #: W45 County: **WELD** Date: 2005  
Author:  
Title: SCHOOL - Elementary School - Dacono  
Availability:  
Mine Name(s): Sterling, Baum  
Location: 1 N 67 W 6 Latitude: 40.08023 Longitude: -104.9332  
Publisher:  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W46 County: **WELD** Date: 2005  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Potential, Furniture Row Site Plan  
Availability: Colorado Geological Survey  
Mine Name(s): Eagle  
Location: 1 N 68 W 14 Latitude: 40.05125 Longitude: -104.9706  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W47 County: **WELD** Date: 2004  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Maple Ridge II Subdivision  
Availability: Colorado Geological Survey  
Mine Name(s): Warwick  
Location: 2 N 67 W 30 Latitude: 40.10937 Longitude: -104.9331  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W48 County: **WELD** Date: 5/2001  
Author: E-21 Engineering, Inc.  
Title: Report of Coal-Mine Subsidence Investigation for Longs Peak Estates Subdivision, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Morrison, Clayton  
Location: 1 N 68 W 9 Latitude: 40.06973 Longitude: -105.0079  
Publisher: E-21 Engineering, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W49 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Glacier LLC Property Mine Subsidence, Section 3, T1N, R68W, Weld County  
Availability: Colorado Geological Survey  
Mine Name(s): Puritan  
Location: 1 N 68 W 3 Latitude: 40.08033 Longitude: -104.9895  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W50 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Hemco Property  
Availability: Colorado Geological Survey  
Mine Name(s): McKissick, Grant  
Location: 2 N 67 W 19 Latitude: 40.12391 Longitude: -104.9331  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W51 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Section 36, Township 2 North, Range 68 West  
Availability: Colorado Geological Survey  
Mine Name(s): Baum  
Location: 2 N 68 W 36 Latitude: 40.09491 Longitude: -104.9517  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W52 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, General Land Development Corporation, 80 Acres of Section 1, T1N, R68W  
Availability: Colorado Geological Survey  
Mine Name(s): Boulder Valley No. 3  
Location: 1 N 68 W 1 Latitude: 40.08035 Longitude: -104.9517  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W53 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Community Development Group LLC, Northfield Development (Erie Commons)  
Availability: Colorado Geological Survey  
Mine Name(s): Garfield, Lehigh  
Location: 1 N 68 W 19 Latitude: 40.03644 Longitude: -105.0462  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W54 County: **WELD** Date: 2001  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation: Saddleback Hill Development  
Availability: Colorado Geological Survey  
Mine Name(s): Russell, Emerson  
Location: 2 N 67 W 20 Latitude: 40.11649 Longitude: -104.9146  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W55 County: **WELD** Date: 1999  
Author: NewFields, Inc.  
Title: Subsidence Analysis, Starlight Commercial Subdivision  
Availability: Colorado Geological Survey  
Mine Name(s): Baum, Sterling  
Location: 1 N 67 W S 6 Latitude: 40.07666 Longitude: -104.9334  
Publisher: NewFields, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W57 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Lots 4 and 5, Block 4, Glacier Industrial Park, Weld County  
Availability: Colorado Geological Survey  
Mine Name(s): Puritan  
Location: 1 N 68 W NE 3 Latitude: 40.08396 Longitude: -104.9847  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W58 County: **WELD** Date: 2000  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Westgate Development  
Availability: Colorado Geological Survey  
Mine Name(s): Morrison  
Location: 1 N 68 W SE 4 Latitude: 40.07667 Longitude: -105.0037  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W59 County: **WELD** Date: 2000  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Blackfox Real Estate, Township 2 North, Range 67 West  
Availability: Colorado Geological Survey  
Mine Name(s): Warwick  
Location: 2 N 67 W 30 Latitude: 40.10937 Longitude: -104.9331  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W60 County: **WELD** Date: 1977  
Author: A.G. Wassenaar, F.M. Fox & Associates  
Title: Soil and Foundation Investigation for Warehouse & Office Facility, SW 1/4 Section 23, T1N, R68W, Weld County, Colorado (Richard Property)  
Availability: Colorado Geological Survey  
Mine Name(s): Washington  
Location: 1 N 68 W SW 23 Latitude: 40.03305 Longitude: -104.9755  
Publisher: A.G. Wassenaar  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W61                      County: **WELD**                      Date: 2001  
Author:                      Western Environment and Ecology, Inc.  
Title:                      Mine Subsidence Investigation, Coal Creek Commons Industrial Park (CCC), Erie, Colorado.  
Availability:  
Mine Name(s): Mitchell  
Location:                      1 N      68 W      SW 19                      Latitude: 40.03292                      Longitude: -105.0508  
Publisher:                      Western Environment and Ecology, Inc.  
Contents:                      Geophysical Logs:       Lithology logs:       Cross-sections:       Mine maps:   
   Structure maps:       Other:

---

MSIC Report #: W63                      County: **WELD**                      Date: 6/1998  
Author:                      Western Environment and Ecology, Inc.  
Title:                      Mine Subsidence Investigation, Sharps Farm, NE 1/4 Section 1, T1N, R68W, Dacono, Colorado  
Availability:                      Colorado Geological Survey  
Mine Name(s): Boulder Valley No. 3  
Location:                      1 N      68 W      NE 1                      Latitude: 40.08399                      Longitude: -104.947  
Publisher:                      Western Environment and Ecology, Inc.  
Contents:                      Geophysical Logs:       Lithology logs:       Cross-sections:       Mine maps:   
   Structure maps:       Other:

---

MSIC Report #: W65                      County: **WELD**                      Date: 4/2004  
Author:                      Western Environment and Ecology, Inc.  
Title:                      Addendum to Mine Subsidence Investigation, Wildflower Subdivision, Section 27, Township 2 North, Range 68 West, Frederick, Colorado  
Availability:                      Colorado Geological Survey  
Mine Name(s): Shamrock, Eureka  
Location:                      2 N      68 W                      27                      Latitude: 40.10961                      Longitude: -104.9894  
Publisher:                      Western Environment and Ecology, Inc.  
Contents:                      Geophysical Logs:       Lithology logs:       Cross-sections:       Mine maps:   
   Structure maps:       Other:

---

MSIC Report #: W66 County: **WELD** Date: 2005  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation SUMMARY Report, Wyndham Hill Property  
Availability: Colorado Geological Survey  
Mine Name(s): Shamrock, Puritan  
Location: 2 N 33 Latitude: 40.09494 Longitude: -104.9989  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W67 County: **WELD** Date: 7/1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Evaluation, 240 Acres of Section 1, Township 1 North, Range 68 West, Dacono, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Boulder Valley No. 3  
Location: 1 N 68 W 1 Latitude: 40.08035 Longitude: -104.9517  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W68 County: **WELD** Date: 2003  
Author: Western Environment and Ecology, Inc.  
Title: Revised Mine Subsidence Investigation: Pinnacle Farms, 305 Acres in Section 2, Township 1 North, Range 68 West, Dacono, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Boulder Valley No. 3  
Location: 1 N 68 W 2 Latitude: 40.08039 Longitude: -104.9706  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W69 County: **WELD** Date: 2005  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation: 400 County Road 3, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Baseline or Monroe  
Location: 1 N 68 W SW 32 Latitude: 40.00391 Longitude: -105.0321  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W70 County: **WELD** Date: 2007  
Author: Western Environment and Ecology, Inc.  
Title: Geophysical and Lithological Logs, Erie Recreation Center  
Availability: Colorado Geological Survey  
Mine Name(s): Garfield  
Location: 1 N 68 W 19 Latitude: 40.03644 Longitude: -105.0462  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W71 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Lot 6, Block 3, Glacier Industrial Park, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Puritan  
Location: 1 N 68 W NE 3 Latitude: 40.08396 Longitude: -104.9847  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---



MSIC Report #: W72 County: **WELD** Date: 2001  
Author: Robert A. Zielinski, James K. Otton, and Craig A. Johnson  
Title: Sources of Salinity Near a Coal Mine Spoil Pile, North-Central Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Boulder Valley No. 3  
Location: Latitude: 40.08979 Longitude: -105.0057  
Publisher: J. Environ. Qual. 30:1237-1248 (2001)  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W73 County: **WELD** Date: 2007  
Author: Western Environment and Ecology, Inc.  
Title: Lloyd and Mitchell Mine Shaft Cap Observations  
Availability: Colorado Geological Survey  
Mine Name(s): Lloyd, Mitchell  
Location: 1 N 68 W SW 19 Latitude: 40.03292 Longitude: -105.0508  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W74 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation: SW 1/4 Section 32, Township 2 North, Range 68 West, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Sterling  
Location: 2 N 68 W SW 32 Latitude: 40.0914 Longitude: -105.0321  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W75 County: **WELD** Date: 2000  
Author: David R. Hinrichs  
Title: Subsidence Analysis - Firestone Villas Subdivision, Firestone, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Firestone  
Location: 2 N 67 W NW 30 Latitude: 40.11133 Longitude: -104.941  
Publisher: David R. Hinrichs  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W76 County: **WELD** Date: 2001  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation - Ridge Lands Subdivision  
Availability: Colorado Geological Survey  
Mine Name(s): Boulder Valley No. 3  
Location: 1 N 68 W NE 1 Latitude: 40.08399 Longitude: -104.9447  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W77 County: **WELD** Date: 2007  
Author: Professional Service Industries, Inc. (PSI)  
Title: Report of Mine Subsidence Study, geotechnical recommendations, proposed Rocky Mountain Christian Church, Frederick, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Frederick  
Location: 2 N 68 W SE 25 Latitude: 40.10588 Longitude: -104.9469  
Publisher: Professional Service Industries, Inc. (PSI)  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W78 County: **WELD** Date: 2007  
Author: Professional Service Industries, Inc. (PSI)  
Title: Report of Mine Subsidence Study, Erie Commercial Center, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Garfield, Mitchell  
Location: Latitude: 40.03462 Longitude: -105.0531  
Publisher: Professional Service Industries, Inc. (PSI)  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W79 County: **WELD** Date: 1993  
Author: Huntingdon Consulting Engineers/Environmental Scientists  
Title: Preliminary Coal Mine Subsidence Hazard Study, 120-Acre Parcel Near Dacono, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Eagle  
Location: 1 N 68 W SW 14 Latitude: 40.04757 Longitude: -104.9754  
Publisher: Huntingdon Consulting Engineers/Environmental Scientists  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W80 County: **WELD** Date: 1999  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Evaluation, 240 Acres, Section 1, T1N, R68W, Dacono, Colorado (Trinity Trust property)  
Availability: Colorado Geological Survey  
Mine Name(s): Boulder Valley No. 3  
Location: 1 N 68 W 1 Latitude: 40.08 Longitude: -104.952  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W82                      County: **WELD**                      Date: 2007  
Author: Professional Service Industries, Inc. (PSI)  
Title: Report of Mine Subsidence Study - Erie Commercial Center, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Mitchell, Garfield, Lloyd  
Location:            1 N    68 W    SW 19            Latitude: 40.03292            Longitude: -105.0508  
Publisher: Professional Service Industries, Inc. (PSI)  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
             Structure maps:     Other:

---

MSIC Report #: W83                      County: **WELD**                      Date: 2008  
Author: Professional Service Industries, Inc. (PSI)  
Title: Report of Mine Subsidence Study - Proposed Wyndham Hills Development, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Puritan, Shamrock  
Location:            2 N    68 W            34            Latitude: 40.095            Longitude: -104.989  
Publisher: Professional Service Industries, Inc. (PSI)  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
             Structure maps:     Other:

---

MSIC Report #: W84                      County: **WELD**                      Date: 2007  
Author: Professional Service Industries, Inc. (PSI)  
Title: Report of Mine Subsidence Study - Geotechnical Recommendations for Proposed Rocky Mountain Christian Church, Frederick, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Frederick  
Location:            2 N    68 W            SE 25            Latitude: 40.10588            Longitude: -104.9469  
Publisher: Professional Service Industries, Inc. (PSI)  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
             Structure maps:     Other:

---

MSIC Report #: W85                      County: **WELD**                      Date: 2008  
Author: Professional Service Industries, Inc. (PSI)  
Title: Report of Mine Subsidence Study - NCMC, Inc./Banner Health Medical Campus, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Shamrock, Puritan  
Location:            2 N    68 W            E 34            Latitude: 40.095            Longitude: -104.985  
Publisher: Professional Service Industries, Inc. (PSI)  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
              Structure maps:             Other:

---

MSIC Report #: W86                      County: **WELD**                      Date: 2006  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation - Erie Commercial Development, 36.75 acres in Section 19, Township 1 North, Range 68 West, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Mitchell, Garfield, Lloyd  
Location:            1 N    68 W            19            Latitude: 40.03656            Longitude: -105.0462  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
              Structure maps:             Other:

---

MSIC Report #: W87                      County: **WELD**                      Date: 1996  
Author: E.O. Church, Inc. Engineers & Geologists  
Title: Geologic Consultation for Proposed Development in Part of NE1/4, Section 25, T2N, R68W, 6th P.M., Frederick, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Frederick  
Location:            1 N    68 W            NE 25            Latitude: 40.02585            Longitude: -104.9472  
Publisher: E.O. Church, Inc. Engineers & Geologists  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
              Structure maps:             Other:

---

MSIC Report #: W88 County: **WELD** Date: 2008  
Author: Western Environment and Ecology, Inc.  
Title: Excavation Inspection, 1058 Zono Avenue, Erie Commons, Erie Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Lehigh  
Location: 1 N 68 W 19 Latitude: 40.03656 Longitude: -105.0462  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W89 County: **WELD** Date: 2008  
Author: Professional Service Industries, Inc. (PSI)  
Title: Report of Geotechnical Engineering Evaluation, Proposed Commercial Development, Coal Creek Center - Lot 6, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Mitchell  
Location: 1 N 68 W SW 19 Latitude: 40.03293 Longitude: -105.0508  
Publisher: Professional Services Industries, Inc. (PSI)  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W90 County: **WELD** Date: 2008  
Author: Professional Service Industries, Inc. (PSI)  
Title: Report of Geotechnical Engineering Evaluation, Proposed Walgreens Coal Creek Center - Lot 10, Leon Wurl Pkwy & Cty Line Rd, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Garfield No. 1  
Location: 1 N 68 W SW 19 Latitude: 40.03293 Longitude: -105.0508  
Publisher: Professional Services Industries, Inc. (PSI)  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W91                      County: **WELD**                      Date: 2001  
Author: CTL/Thompson, Western Environment and Ecology, PSI  
Title: Mine Subsidence Review, Miners Village PUD, Frederick, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Baum  
Location:            2 N    68 W    NW 36    Latitude: 40.09858    Longitude: -104.9564  
Publisher: CTL/Thompson, Western Environment and Ecology, PSI  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: W92                      County: **WELD**                      Date: 2006  
Author: Ground Engineering Consultants  
Title: Subsurface Exploration Program, Coal Mine Confirmation Report, Erie Recreation Center, Town of Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Garfield  
Location:            1 N    68 W            19    Latitude: 40.03656    Longitude: -105.0462  
Publisher: Ground Engineering Consultants, Inc.  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: W93                      County: **WELD**                      Date: 2006  
Author: Zapata Engineering, P.A., Blackhawk Division  
Title: Geophysical Investigation to Image Old Mine Works at Erie Recreation Center Site  
Availability: Colorado Geological Survey  
Mine Name(s): Garfield No. 2  
Location:            1 N    68 W            19    Latitude: 40.03656    Longitude: -105.0462  
Publisher: Zapata Engineering, P.A., Blackhawk Division  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: W94                      County: **WELD**                      Date: 2002  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation: Johnson Sister's Farm, SW 1/4 of Section 31, Township 2 North, Range 67 West, Frederick, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Evans  
Location:            2 N    67 W    SW 31            Latitude: 40.09126            Longitude: -104.9379  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
             Structure maps:     Other:

---

MSIC Report #: W95                      County: **WELD**                      Date: 2009  
Author: Professional Service Industries, Inc. (PSI)  
Title: Report of Mine Subsidence Evaluation: St. Vrain Valley School District Proposed New High School, Miner's Village Development, Weld Co. Rd 13 & Weld Co. Rd 16, Frederick, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Baum  
Location:            2 N    68 W    NE 36            Latitude: 40.09856            Longitude: -104.9469  
Publisher: Professional Service Industries, Inc. (PSI)  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
             Structure maps:     Other:

---

MSIC Report #: W96a                      County: **WELD**                      Date: 2007  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Assessment, Proposed Erie Estates Residential, Southeast 1/4 of Section 20, Township 1 North, Range 68 West, Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Columbine  
Location:            1 N    68 W    SE 20            Latitude: 40.03293            Longitude: -105.0228  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
             Structure maps:     Other:

---



MSIC Report #: W96b                      County: **WELD**                      Date: 2008  
Author: Western Environment and Ecology, Inc.  
Title: Erie Estates Subdivision, Southeast 1/2 Section 20, Township 1 North, Range 68 West, Weld County, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Columbine  
Location:            1 N    68 W    SE 20            Latitude: 40.03293            Longitude: -105.0228  
Publisher: Western Environment and Ecology, Inc.  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: W97                      County: **WELD**                      Date: 2009  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Assessment, Lot 1, Block 2, Puritan Town Site, SW 1/4 of Section 34, Township 2 North, Range 68 West, Frederick, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Puritan  
Location:            2 N    68 W    SW 34            Latitude: 40.12048            Longitude: -104.9562  
Publisher: Western Environment and Ecology, Inc.  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: W98                      County: **WELD**                      Date: 1978  
Author: David Shelton  
Title: Deformation of highway surface on I-25 near the Erie interchange in the vicinity of the Eagle mine  
Availability: Colorado Geological Survey  
Mine Name(s): Eagle  
Location:            1 N    68 W    NW 23            Latitude: 40.04            Longitude: -104.98  
Publisher: Colorado Geological Survey  
Contents:    Geophysical Logs:     Lithology logs:     Cross-sections:     Mine maps:   
                 Structure maps:     Other:

---

MSIC Report #: W99 County: **WELD** Date: 1996  
Author: Dames & Moore  
Title: Report on Subsidence Potential, Union Pacific Land - Resources Corporation Tracts Near Erie, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Northwestern, Imperial, Clayton, Eagle, Old Boulder Valley, Garfield No. 2, Lehigh, unknown  
Location: 1 N 68 W 8 Latitude: 40.0656 Longitude: -105.0277  
Publisher: Dames & Moore  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W100 County: **WELD** Date: 2008  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Assessment, Lots 3 and 4, Block 1, Fourth Filing, Glacier Business Park  
Availability: Colorado Geological Survey  
Mine Name(s): Puritan  
Location: 1 N 68 W 3 Latitude: 40.0803 Longitude: -104.9894  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W101 County: **WELD** Date: 2009  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Assessment 133.7 Acres in the SE 1/4 of Section 26, Township 2 North, Range 68 West, Frederick, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Baum, Boulder Valley No. 3  
Location: 2 N 68 W SE 26 Latitude: 40.10595 Longitude: -104.9657  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: W102 County: **WELD** Date: 1998  
Author: Western Environment and Ecology, Inc.  
Title: Mine Subsidence Investigation, Mini Storage Facility, Lots 1, 2 and 4, Tops Business Park, Frederick, Colorado  
Availability: Colorado Geological Survey  
Mine Name(s): Evans, Frederick  
Location: 2 N 68 W SE 25 Latitude: 40.10589 Longitude: -104.9469  
Publisher: Western Environment and Ecology, Inc.  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: MI1 County: **Multiple** Date: 1987  
Author: Gordon M. Matheson  
Title: Geologic and Mining Factors that Control Subsidence Above Abandoned Underground Coal Mines Along the Colorado Front Range  
Availability: Colorado Geological Survey; Colorado School of Mines  
Mine Name(s): Colorado Springs and Boulder/Weld coal fields  
Location: Latitude: 40.10339 Longitude: -104.9356  
Publisher: Arthur Lakes Library, Colorado School of Mines, Golden Colorado  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

MSIC Report #: MI2 County: **Multiple** Date: 1981  
Author: Amuedo and Ivey  
Title: Inactive Coal Mines of the Front Range Area: a Mine Inventory and an Evaluation of Hazards Arising from Past Mining  
Availability: Colorado Geological Survey  
Mine Name(s): All BO, WE, JR, EP, FR, HU, LN mines  
Location: Latitude: 38.125 Longitude: -105.038  
Publisher: Inactive Mine Reclamation Program, Department of Natural Resources, State of Colorado  
Contents: Geophysical Logs:  Lithology logs:  Cross-sections:  Mine maps:   
Structure maps:  Other:

---

# MSIC Reports by Mine

The MSIC "Report by Mine" listing is organized by County, Mine Name, and then by MSIC Report Number. The MSIC Reports document provides further details about each subsidence report. Some reports cover several mines, in which case a specific MSIC Report Number may be found in the "Report by Mine" listing under only the first listed mine and not under subsequent mine names. The digital PDF version of this report is searchable, and entering a mine's name in a search query will find all occurrences of that mine name and associated MSIC Report Numbers.

## COUNTY

### Mine Name

MSIC Report No.

## ARCHULETA

### San Juan-Chama Diversion Project

AU1

## BOULDER

### Acme

B3

B11

B12

B34

### Acme, Leader

B14

### Ajax

B27

### Black Diamond No. 2

B28

B30a

B30b

B30c

B38

B74

### Cambro

B43

### Chase, Cleveland, MacGregor, Marfel, Northrup, Tyson

B80

### Chase, Tynon

B91

### Crown

B19

B67

### Crown, Matchless

B7c

### Crown, Matchless-Sunland, Fireside

B24

### Crown, Matchless-Sunland, Fireside, Ajax-Leader

B7a

B7b

### Electric

B8

B9

B10

B36

## BOULDER

### Gorham

B89

### Haywood (Irvington)

B45

### Hecla No. 1, Hecla No. 2, Rex No. 1, Rex No. 1

B83

### Hecla No. 1, Rex No. 1

B16

### Hecla, Big Lake

B48

### Hi-Way

B4

B58

### Industrial, Monarch No. 2

B56

### Leader

B25

B37

B61

### Leader-Ajax

B15

### Lewis No. 1, Lewis No. 2

B88

### Lewis, Fox, Eagle

B35

### Lister, Stewart, Garfield

B84

### Longs Peak

B63

B70

B73

B78

### Louisville

B64

### Marshall

B87

### Matchless

B29

B54

B66

B79

**COUNTY****Mine Name**

MSIC Report No.

**BOULDER****Matchless (in vicinity)**

B52

**Matchless, Eagle**

B5

**Matchless, Fireside**

B26

B41

B55

B60

**Matchless-Sunland, Fireside**

B21

**McGregor**

B85

**Mitchell**

B53

**Mitchell, Simpson**

B33

B50

**Monarch No. 2**

B1

B39

**Multiple mines**

B40

B59

**New Centennial, Electric, Big Lake, Hecla**

B23

**Nonpareil, Regal**

B22

**Northrup, Chase**

B71

**Old Centennial**

B62

**Paramount**

B69

**Rex No. 1**

B18

**Rex No. 2 (Hecla No. 2 previously)**

B49

**Simpson**

B86

**Simpson, Mitchell**

B20

B42

B44

B46

**Standard**

B76

**Stewart, Lister, Garfield**

B81

B82

**BOULDER****Strathmore**

B32

B51

B57

B68

**Tynon**

B77

**Vulcan**

B2

B6

B31

B72

B75

**Vulcan, New Centennial**

B13

**Vulcan?**

B90

**BOULDER/WELD****All BO, WE mines**

BW3

BW4

BW5

**Boulder Valley No. 3, Eagle, Imperial, Lincoln, Sterling, Washington**

BW2

**Leyden, Lewis No. 2, Rex No. 2, Hi-Way**

BW1

**BROOMFIELD****Washington**

BR1

**DOLORES****Atlantic Cable, Van Winkel, George Hicks**

D1

**EL PASO****Alex Patterson**

E10

**Busy Bee, Corley, Patterson**

E9

**Busy Bee, Tudor, Curtis**

E40

**City No. 2, City No. 4, Rapson, Gray Air**

E30b

**City No. 3, City No. 2, and Rapson**

E30a

**Corley No. 3**

E13

**Corley, Busy Bee, Patterson**

E7

**COUNTY****Mine Name**

MSIC Report No.

**EL PASO****Cottonwood, Pitching Vein, Neer, New Cottonwood, Last Chance, unknown 1-3**

E41a\_i

**Cottonwood, Pitching Vein, Neer, New Cottonwood, Last Chance, unknown 1-4**

E41

**Curtis, City Coal Mine No. 1, Williams, Williamsville, New Altitude and Danville**

E18

**Danville, Climax II, William Suille, Curtis**

E33

**Keystone**

E39

**Klondike**

E38

**Multiple mines**

E1

E17

E19

**Patterson**

E25

E28

**Pikeview**

E2b

E3

E4

E5

E8

E14

E15

E16

E20

E21

E22

E26

E27

E29

E31

E32a

E32b

E34

E37

E37b

**Pikeview, Carlton**

E2a

**Rapson**

E11

E12

**Rapson, New Keystone**

E42

**EL PASO****Rockrimmon, Cragmor-Country Club, Palmer Park, Rustic Hills**

E36

**FREMONT****Canon City**

F1

**GARFIELD****IHI**

G1

**HUERFANO****Multiple mines**

H3

**Walsen, Robinson**

H1

H2

**JEFFERSON**

J21

**All Jefferson County mines**

J14

**Clay mines**

J35a

J35b

**Economy (Unity)**

J5

J6

J8

J17

J17a

J17b

J17c

J17d

J20

J22

J27

J28

J36

**Economy (Unity), Littleton (Christenson)**

J7

J16

J30

**Economy (Unity), Littleton (Christenson), Virginia**

J11

**Leyden**

J19

J37

J38

**COUNTY**

**Mine Name**

MSIC Report No.

**JEFFERSON**

**Littleton (Christenson)**

- J10
- J10a
- J10b
- J10c
- J10d
- J10e
- J10f
- J10g
- J15
- J24
- J39

**Multiple mines**

- J29

**New (Little) White Ash**

- J26

**New Loveland**

- J23

**New Star, New Castle, Old Star**

- J34

**Old Loveland, New Loveland, New White Ash, New Mine**

- J9

**Pittsburg Coal Mine; Parfet Clay Mine**

- J25

**Virginia**

- J1
- J2
- J3
- J4
- J12
- J13
- J40

**LAS ANIMAS**

**Eagle, Wilton, Eli Jeffries, Bloom, Hines**

- LN1

**Multiple**

**All BO, WE, JR, EP, FR, HU, LN mines**

- MI2

**Colorado Springs and Boulder/Weld coal fields**

- MI1

**PITKIN**

- P1

**ROUTT**

**Ben Male, Big Mack, Blue Spruce, Edna, Frank's, Hayden Nos. 1 - 4, Keystone, Moffat Nos. 1 - 3, Oak Hills No. 1 and 2, Pinnacle No. 4, Pinnacle, Postal, Yampa Valley No. 1-3 & 6, Arrowhead, Electric No. 1-3**

- R2

**ROUTT**

**McGregor**

- R1

**WELD**

**Baseline**

- W18

**Baseline or Monroe**

- W69

**Baseline, Columbine**

- W19

**Baum**

- W20
- W25
- W31
- W51
- W91
- W95

**Baum, Boulder Valley No. 3**

- W101

**Baum, Firestone, Evans, Grant, Sterling, Warwick**

- W2

**Baum, Sterling**

- W42
- W55

**Boulder Valley No. 1 (Andrew), Columbine**

- W1

**Boulder Valley No. 3**

- W21
- W24
- W52
- W63
- W67
- W68
- W72
- W76
- W80

**Boulder Valley, North-Western, Garfield, Mitchell, Lehigh, unknown**

- W14

**Clayton**

- W32

**Columbine**

- W96a
- W96b

**Eagle**

- W5
- W23
- W46
- W79
- W98

**COUNTY**

**Mine Name**

MSIC Report No.

**WELD**

**Emerson, Russell**

W22

**Evans**

W44

W94

**Evans, Frederick**

W102

**Firestone**

W75

**Frederick**

W12

W16

W77

W84

W87

**Garfield**

W70

W92

**Garfield No. 1**

W90

**Garfield No. 2**

W93

**Garfield, Lehigh**

W53

**Garfield, Mitchell**

W78

**Gradon**

W4

**Grant**

W11

W13

W15

**Lehigh**

W88

**Lehigh, Garfield**

W33

**Lloyd, Mitchell**

W73

**McKissick, Grant**

W50

**Mitchell**

W17

W61

W89

**Mitchell, Garfield, Lloyd**

W82

W86

**WELD**

**Morrison**

W7

W30

W58

**Morrison, Clayton**

W48

**Northwestern, Imperial, Clayton, Eagle, Old Boulder Valley, Garfield No. 2, Lehigh, unknown**

W99

**Puritan**

W3

W10

W27

W49

W57

W71

W97

W100

**Puritan, Shamrock**

W34

W83

**Russell**

W37

W38

**Russell, Emerson**

W54

**Shamrock**

W36

**Shamrock, Eureka**

W26

W35

W65

**Shamrock, Puritan**

W66

W85

**Sterling**

W6

W8

W28

W39

W40

W41

W43

W74

**Sterling, Baum**

W45

**Sterling, Lincoln**

W29



**COUNTY**

**Mine Name**

MSIC Report No.

**WELD**

**Warwick**

W47

W59

**Washington**

W60

## Part II: Selected References

- American Geological Institute, 1976, Bibliography and Index of Colorado Geology, 1875 to 1975: Colorado Geological Survey Bulletin 37, 488p.
- American Geological Institute, 1983, Bibliography and Index of Colorado Geology, 1975 to 1980: Colorado Geological Survey Bulletin 45, 294p.
- American Geological Institute, 1983, Bibliography and Index of Colorado Geology, 1981 to 1982: Colorado Geological Survey Information Series No. 19, 111p.
- American Geological Institute, 1990, Bibliography and Index of Colorado Geology, 1984-1989: Colorado Geological Survey Information Series No. 30, 584p.
- Amuedo and Ivey, Inc., 1975, Coal Mine Subsidence and Land Use in the Boulder-Weld Coalfield: Boulder and Weld Counties, Colorado: Colorado Geological Survey Environmental Geology Series 09, 92p., 6 plates.
- Amuedo and Ivey, 1981, Inactive Coal Mines of the Front Range Area: Inactive Mine Reclamation Program, Division of Mined Land Reclamation, State of Colorado.
- Averitt, Paul and Lopez, Loredda, 1971, Bibliography and Index of US Geological Survey publications relating to coal, 1882-1970: US Geological Survey Bulletin 1377, 173p.
- Brauner, Gerhard, 1973, Subsidence due to Underground Mining: Theory and Practices in Predicting Surface Deformation, Denver Mining Research Center, US Department of the Interior, Bureau of Mines Information Circular 8571, 56p.
- Brauner, Gerhard, 1973, Subsidence due to Underground Mining: Ground Movements and Mining Damage, Denver Mining Research Center, US Department of the Interior, Bureau of Mines Information Circular 8572, 53p.
- Boreck, D.L. and Murray, D.K., 1979, Colorado Coal Reserve Depletion Data and Coal Mine Summaries: Colorado Geological Survey Open File Report 79-1.
- Carroll, C.J. and Bauer, M.A., 2002, Historic Coal Mines of Colorado: Colorado Geological Survey Information Series 64, CD-ROM.
- Carroll, C.J., 2006, Coal Resource Maps of Colorado: Colorado Geological Survey Map Series 43, CD-ROM.
- Colorado Inactive Mine Program, 1982, Inactive Mines of Colorado: Division of Mined Land Reclamation, State of Colorado, 1 sheet.
- Colorado School of Mines Research Institute, 1980, Annotated Bibliography of Source Materials on Abandoned Coal-Mined Lands in Colorado: US Dept. of the Interior, Office of Surface Mining, 127p.

- Colton, Roger B. and Lowrie, Raymond L., 1973, Map Showing Mined Areas of the Boulder-Weld Coal Field, Colorado: US Geological Survey Misc. Field Studies Map 513.
- Fejes, A.J., Dyni, R.C., Magers, J.A., and Swatek, L.B., 1985, Subsidence Information for Underground Mines – Literature Assessment and Annotated Bibliography: US Department of the Interior, Bureau of Mines Information Circular 9007, 86p.
- Fender, H.B., Jones, D.C., and Murray, D.K., 1978, Bibliography and Index of Publications Related to Coal in Colorado, 1972-1977: Colorado Geological Survey Bulletin 41, 54p.
- Holt, R.D., 1972, Bibliography, Coal Resources in Colorado: Colorado Geological Survey Bulletin 34-A, 31p.
- Hynes, Jeffrey L., 1986, Proceedings of the 1985 Conference on Coal Mine Subsidence in the Rocky Mountain Region: Colorado Geological Survey Special Publication 31, 315p.
- Hynes, J.L., 1987, Tri-Towns Subsidence Investigation, Weld County, Colorado: Colorado Geological Survey Open File Report 87-03, 52p., 3 plates.
- Kirkham, R.M., 1978, Coal Mines and Coal Analyses of the Denver and Cheyenne Basins, Colorado: Colorado Geological Survey Open File Report 78-9.
- Lowrie, R.L., 1976, Analysis of the Coal Industry in Boulder-Weld Coal Field, Colorado: US Bureau of Mines Rep. Inv. 6726, 79p.
- Moore, R., Colaizzi, G., and Laird, R., 1984, Feasibility of Using Fly Ash for Backfilling Abandoned Coal Mines in Colorado Springs, Colorado: Goodson Associates for the Office of Surface Mining, Denver, Colorado.
- Panek, Louis A., 1973, Program for Control of Surface Subsidence: Denver Mining Research Center, US Department of the Interior, Bureau of Mines, Progress Report No. 10011, 23p.
- Pendleton, James A., 1978, Geology and the Conduct of Local Government: An Urban Geologist's Viewpoint: Ph.D. Thesis, University of Colorado, Boulder, 209p., 16 plates.
- Roberts, S.B., Hynes, J.L., and Woodward, C.L., 2001, Maps Showing the Extent of Mining, Locations of Mine Shafts, Adits, Air Shafts, and Bedrock Faults, and Thickness of Overburden Above Abandoned Coal Mines in the Boulder-Weld Coal Field, Boulder, Weld, and Adams Counties, Colorado: US Geological Survey Geologic Investigation Series I-2735.

Rocky Mountain Association of Geologists, 1981, Bibliography of Theses and Dissertations on Colorado, 1968-1980: *The Mountain Geologist*, Vol. 18, No. 4, p. 96-113.

Rogers, W.P., and others, 1974, Guidelines and Criteria for Identification and Land Use Controls of Geologic Hazard and Mineral Resource Areas: Colorado Geological Survey Special Publication No. 8, 14p.

Rushworth, P., Kelso, B.S., Broomfield, M.E., and Johnson, E.A, 1988, Selected References on the Geology and Coal Resources of the Central and Western Colorado Coal Fields and Regions: Colorado Geological Survey Information Series 25, 141p.

Turney, J.E. and Murray-Williams, L., 1984, Colorado Front Range Inactive Coal Mine Data and Subsidence Information: Colorado Geological Survey.

Turney, J.E., 1984, Subsidence above Inactive Coal Mines, Information for the Homeowner: Colorado Geological Survey Special Publication 26.

Walker, F.K., 1976, Bibliography and Index of US Geological Survey Publications Relating to Coal, 1971-1975: US Geological Survey Circ. 742, 32p.

## Part III: Sources of Information

**Colorado Division of Reclamation Mining and Safety**

1313 Sherman Street, Room 215

Denver, CO 80203

(303) 866-3567

<http://mining.state.co.us>

Abandoned Mines Program

Subsidence Event Reporting

Mine Subsidence Protection Program

Best Practices

Rules and Regulations

**Colorado Geological Survey**

1313 Sherman Street, Room 715

Denver, CO 80203

(303) 866-2611

<http://geosurvey.state.co.us>

Mine Subsidence Information Center

Mine Maps

Reports and Investigations

**Colorado School of Mines**

Arthur Lakes Library

1400 Illinois Street

Golden, CO 80401

(303) 273-3911

<http://library.mines.edu>

**Denver Public Library**

Western History Department

10 W. Fourteenth Ave.

Denver, CO 80204

(720) 865-1821

<http://history.denverlibrary.org>

**Office of Surface Mining Reclamation and Enforcement – Western Region**

1999 Broadway, Suite 3320

Denver, CO 80202

(303) 293-5000

[www.wrcc.osmre.gov](http://www.wrcc.osmre.gov)

Emergency action closeout reports

**US Geological Survey Central Region Library**

Denver Federal Center  
Building 20 Room C-2002  
(303) 236-1000

<http://library.usgs.gov/denlib.html>

Air Photos & Photographs  
Publications and Maps

**Boulder County Land Use Department**

2045 13<sup>th</sup> Street  
Boulder, CO 80302  
(303) 441-3930

[www.bouldercounty.org/lu/](http://www.bouldercounty.org/lu/)

Consultant Reports and Investigations  
Maps and Overlays

**El Paso County Development Services**

2880 International Circle  
Colorado Springs, CO 80910

[http://adm.elpasoco.com/development\\_services/](http://adm.elpasoco.com/development_services/)

Consultant Reports and Investigations  
Maps and Overlays

**Jefferson County Planning and Zoning Department**

100 Jefferson County Parkway, Suite 3550  
Golden, CO 80419  
(303) 271-8700

[www.co.jefferson.co.us/planning](http://www.co.jefferson.co.us/planning)

Consultant Reports and Investigations  
Maps and Overlays

**City of Colorado Springs Community Development**

30 S. Nevada Ave  
Colorado Springs, CO 80903  
(719) 385-5905

[www.springsgov.com](http://www.springsgov.com)

Consultant Reports and Investigations  
Maps and Overlays

**Town of Dacono Building and Planning Department**

512 Cherry Street  
Dacono, CO 80514  
(303) 833-2317

[www.ci.dacono.co.us](http://www.ci.dacono.co.us)



**Town of Erie Community Development**

645 Holbrook Street

Erie, CO 80516

(303) 926-2770

[www.erieco.gov](http://www.erieco.gov)

Consultant Reports and Investigations

**Town of Frederick Planning Department**

401 Locust Street

Frederick, CO 80530

(720) 382-5500

[www.frederickco.gov](http://www.frederickco.gov)

Consultant Reports and Investigations

**Town of Lafayette Community Development**

1290 S. Public Road

Lafayette, CO 80026

(303) 665-5588 x 3329

[www.cityoflafayette.com](http://www.cityoflafayette.com)

Consultant Reports and Investigations

**Town of Louisville Planning and Zoning Department**

749 Main Street

Louisville, CO 80027

(303) 666-6565

[www.louisvilleco.gov](http://www.louisvilleco.gov)

Consultant Reports and Investigations

**Town of Superior Planning Department**

124 E. Coal Creek Drive

Superior, CO 80027

(303) 499-3675

[www.townofsuperior.com](http://www.townofsuperior.com)

## Figures

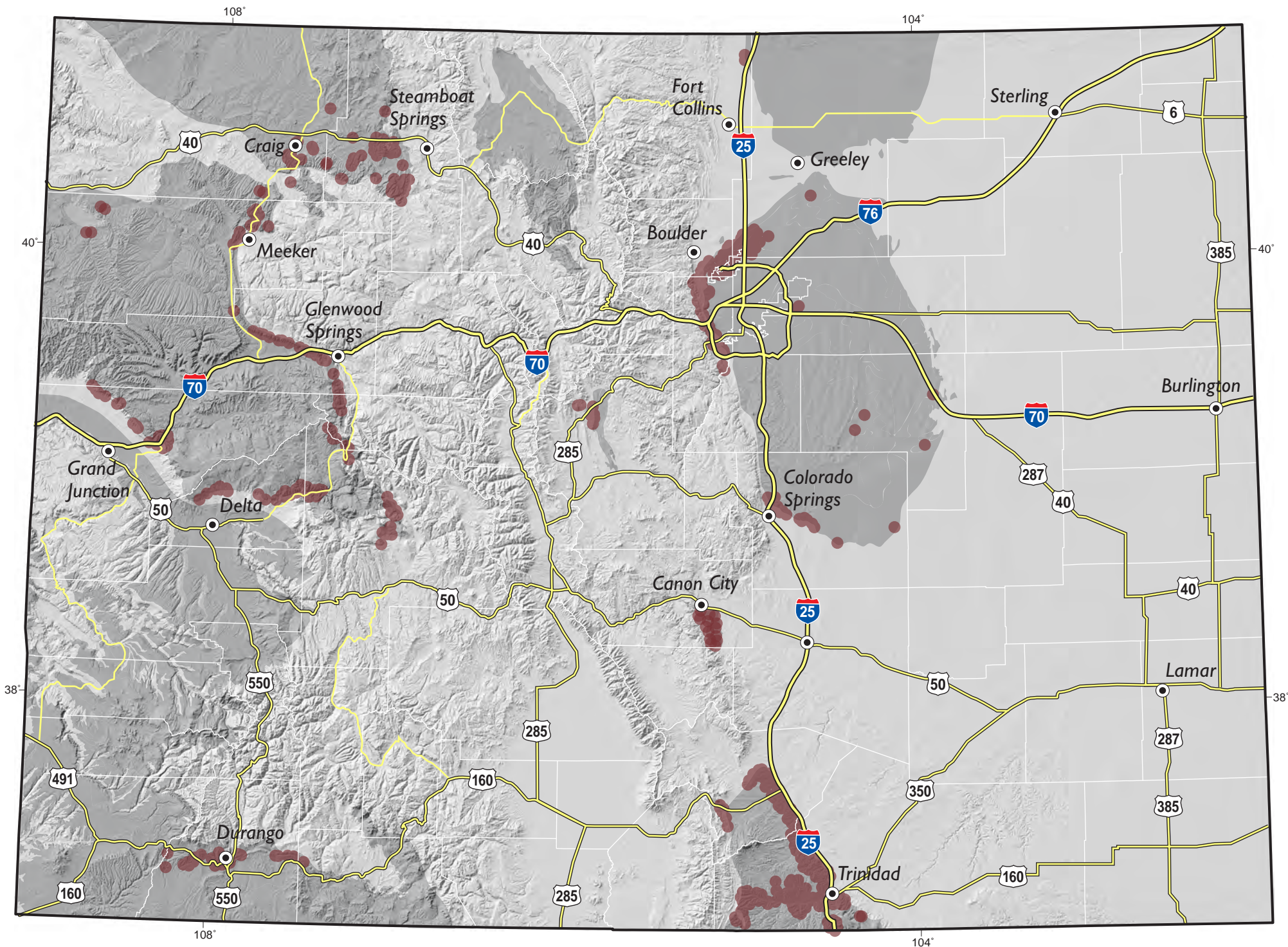


Figure 1: Areas known to be undermined by historic coal mines (brown areas) in Colorado. Coal fields are in gray.

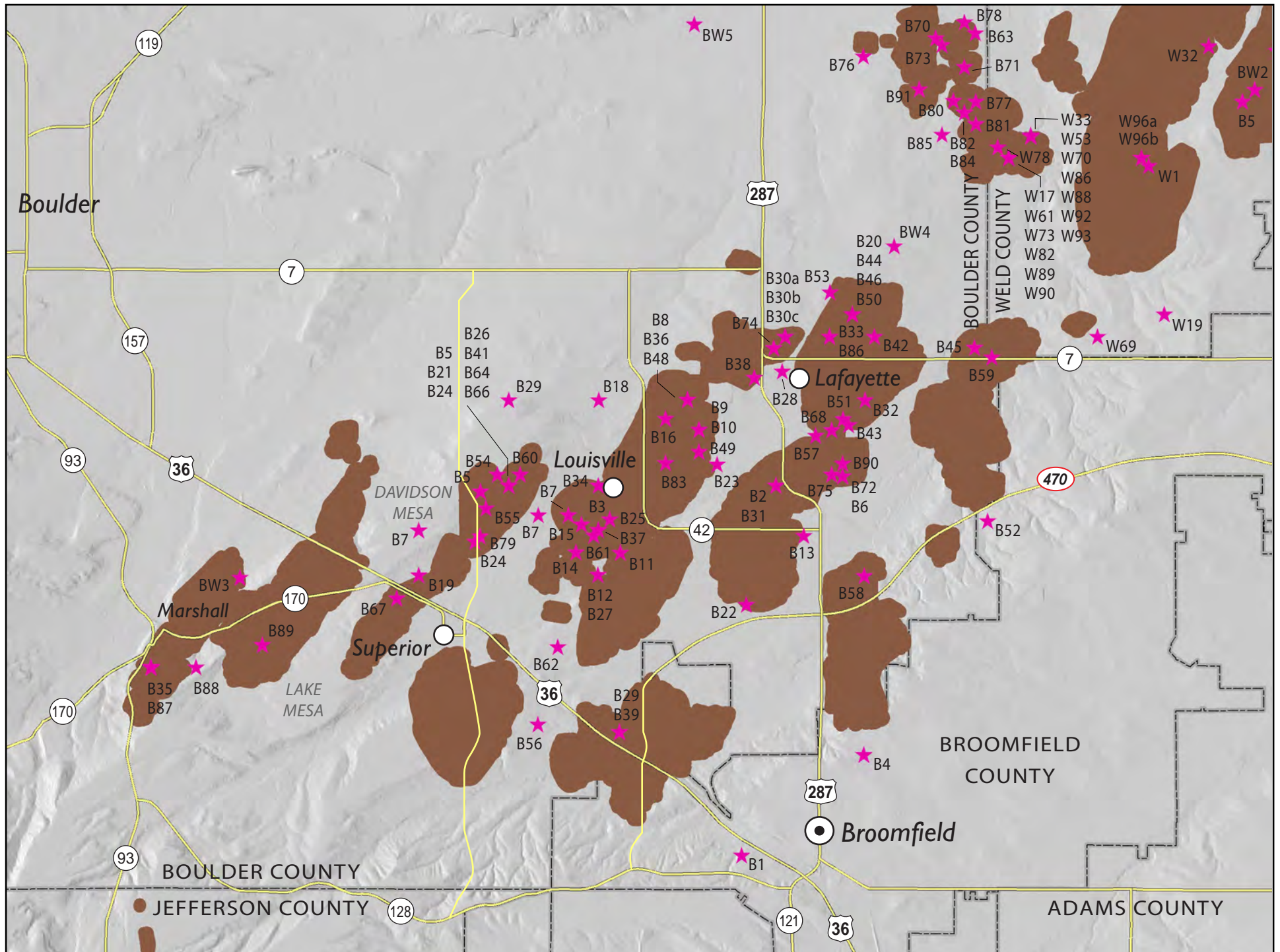


Figure 2: Approximate locations of selected mine subsidence investigation reports in Boulder and Broomfield Counties. Numbers correlate with the MSIC Report Number shown in Part I of this bibliography. Brown areas are known to be undermined by historic coal mines.

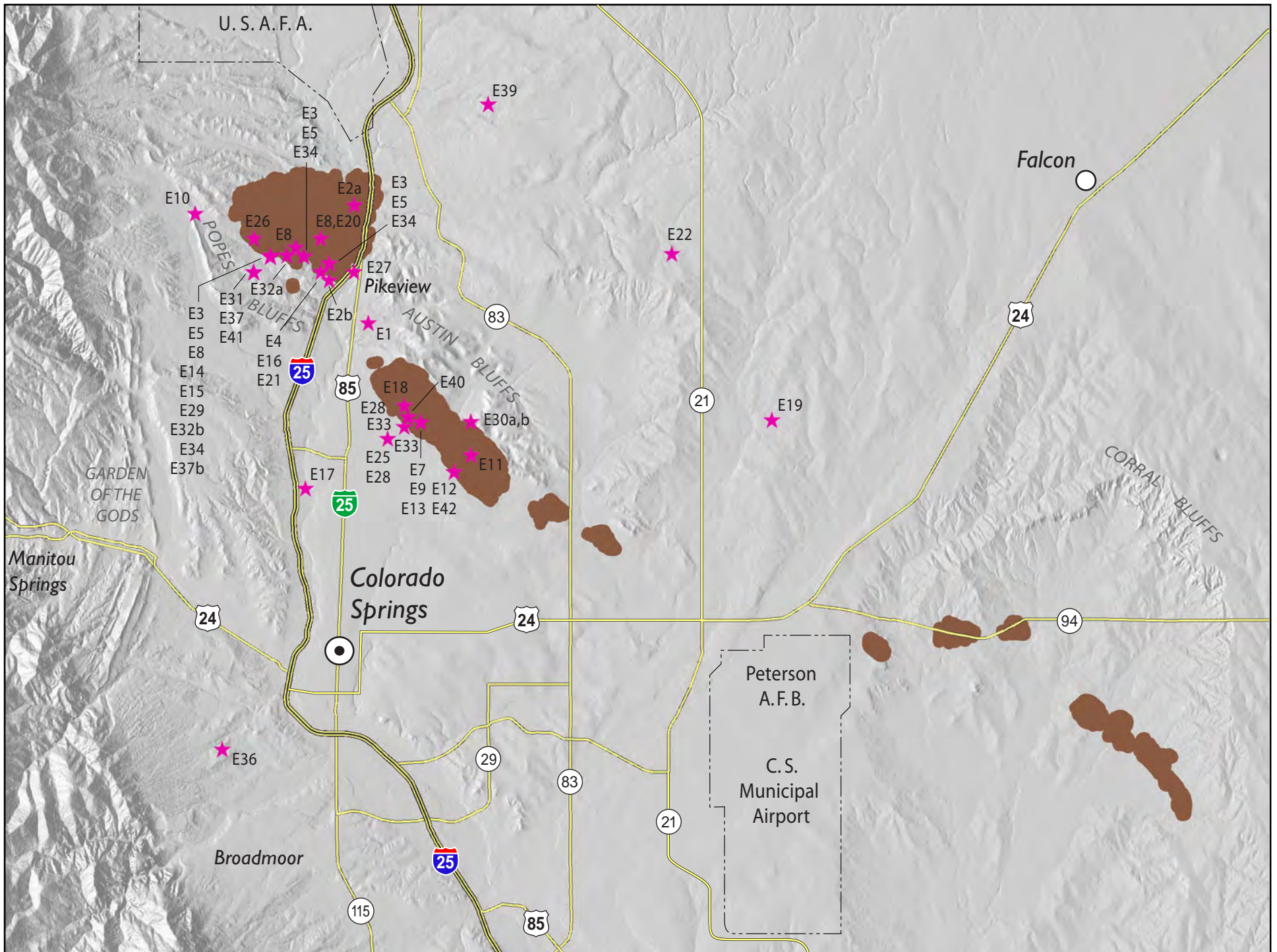


Figure 3: Approximate locations of selected mine subsidence investigation reports in El Paso County. Numbers correlate with the MSIC Report Number shown in Part I of this bibliography. Brown areas are known to be undermined by historic coal mines.

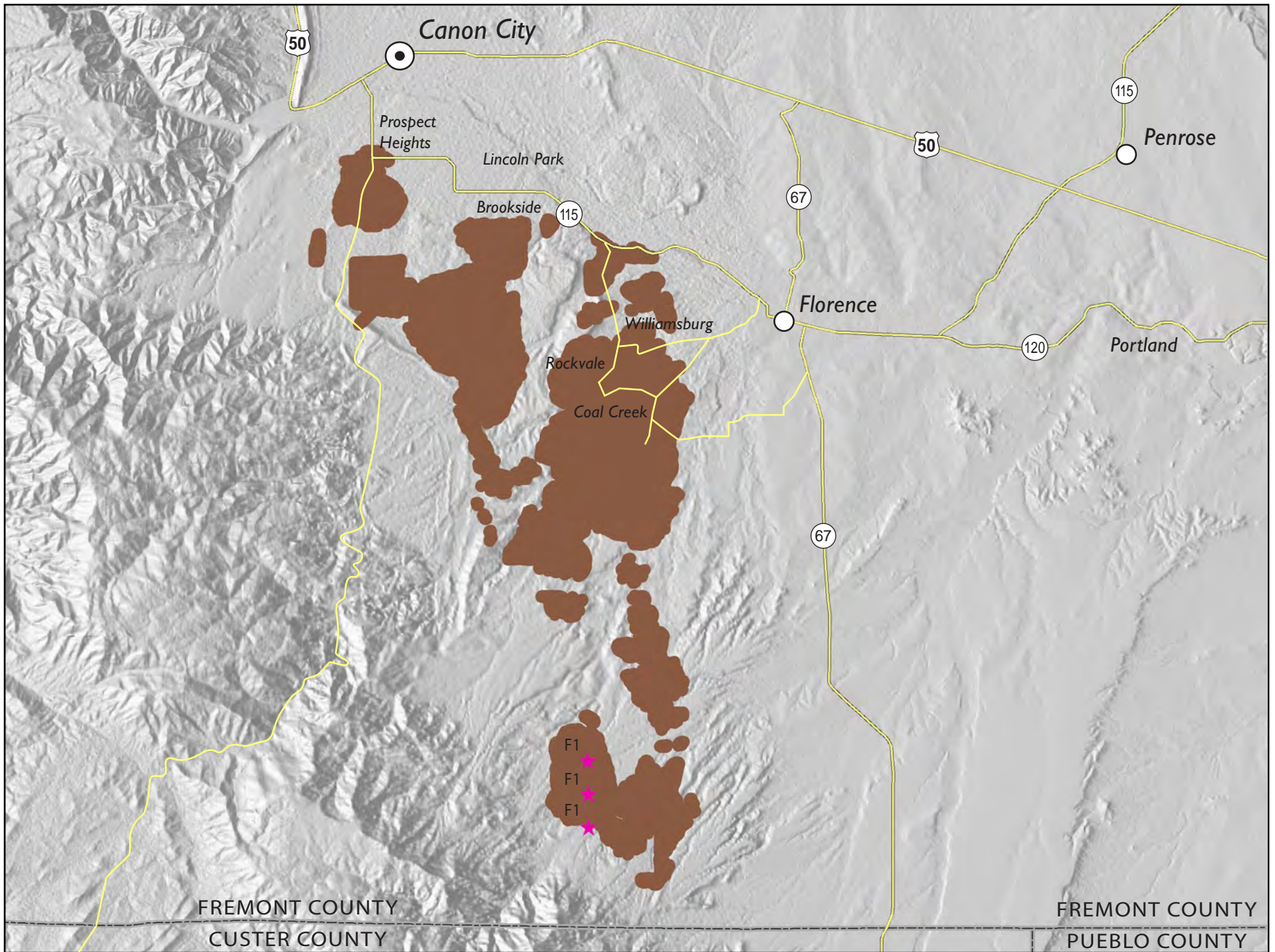


Figure 4: Approximate locations of mine subsidence investigation reports in Fremont County. Numbers correlate with the MSIC Report Number shown in Part I of this bibliography. Brown areas are known to be undermined by historic coal mines.

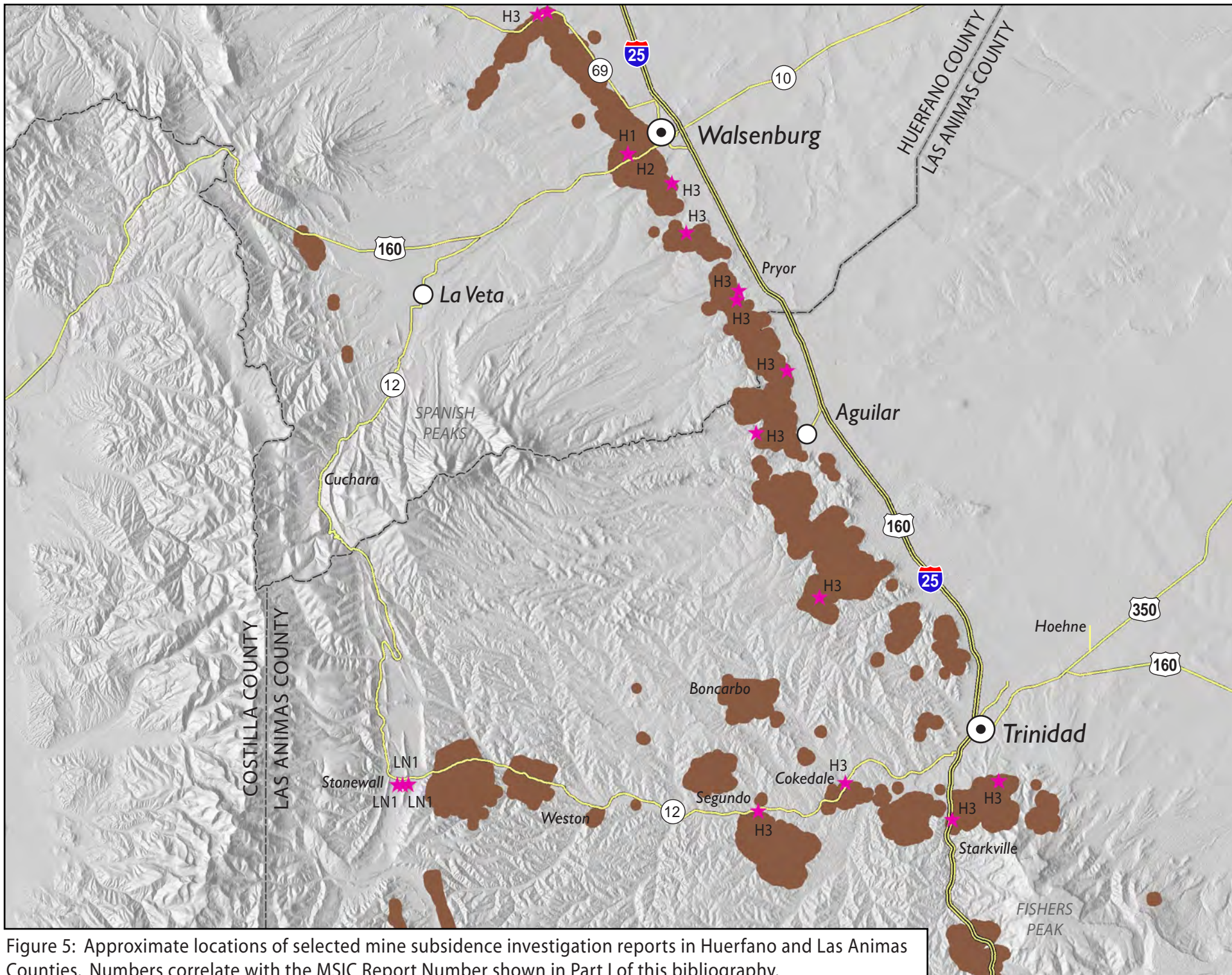


Figure 5: Approximate locations of selected mine subsidence investigation reports in Huerfano and Las Animas Counties. Numbers correlate with the MSIC Report Number shown in Part I of this bibliography.

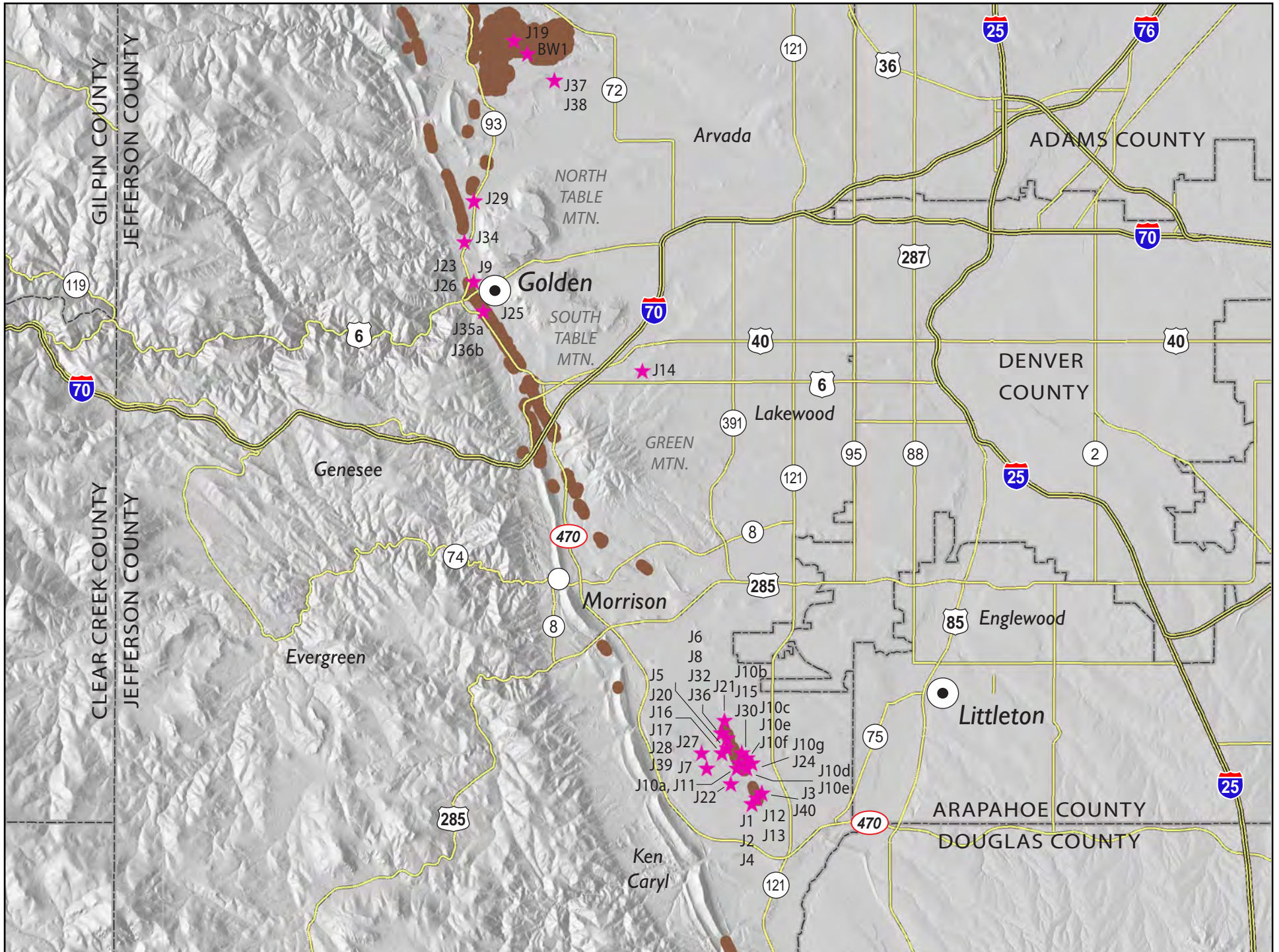


Figure 6: Approximate locations of selected mine subsidence investigation reports in Jefferson County. Numbers correlate with the MSIC Report Number shown in Part I of this bibliography. Brown areas are known to be undermined by historic coal mines.



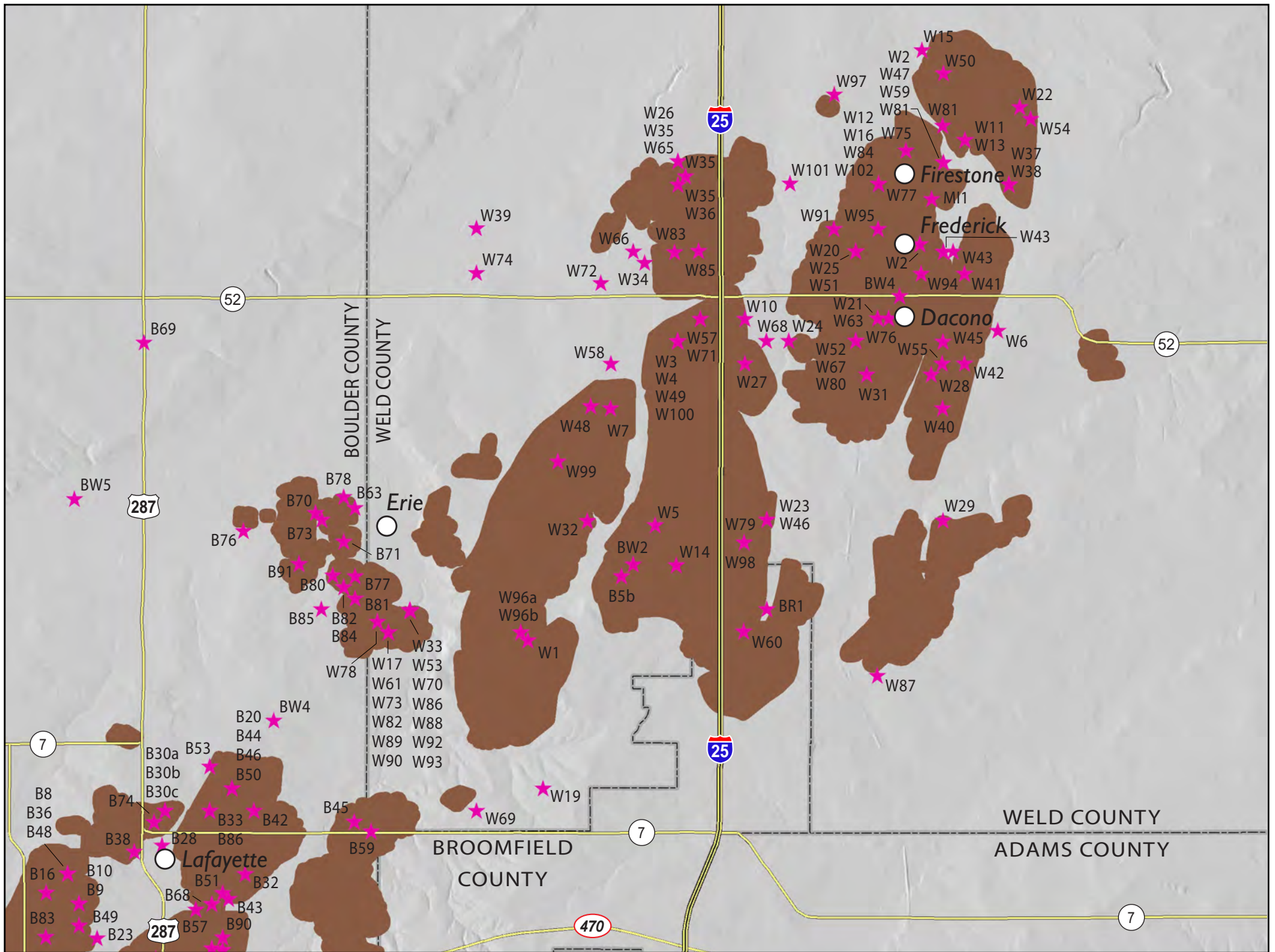


Figure 7: Approximate locations of selected mine subsidence investigation reports in Weld County. Numbers correlate with the MSIC Report Number shown in Part I of this bibliography. Brown areas are known to be undermined by historic coal mines.

**FOLLOWING IS THE  
ORIGINAL  
IS-22  
FROM 1989**

Updated June, 1989



Colorado Geological Survey  
Department of Natural Resources  
Denver, Colorado

---

---

Information Series 22

**Annotated Bibliography  
of Subsidence Studies  
over Abandoned Coal  
Mines in Colorado**

Compiled by  
Tom Hatton and  
J.E. Turney

Information Series 22

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Compiled by  
Tom Hatton  
and  
J.E. Turney

Colorado Geological Survey  
Department of Natural Resources  
State of Colorado  
1984

Updated October, 1984  
Updated April, 1986  
Updated June, 1989

A cooperative investigation conducted by the Colorado Geological Survey and funded by the Division of Mined Land Reclamation, Inactive Mine Program, Colorado Department of Natural Resources, through U.S. Government Grant No. G 5127081.

## CONTENTS

	<u>Page</u>
Introduction .....	1
How to Use the Bibliography .....	2
Part I - Annotated Bibliography .....	3
Boulder County	
Map Reference No. - Author	
Cross-Reference List .....	3
El Paso County	
Map Reference No. - Author	
Cross-Reference List .....	67
Fremont County	
Map Reference No. - Author	
Cross-Reference List .....	88
Jefferson County	
Map Reference No. - Author	
Cross-Reference List .....	91
Weld County	
Map Reference No. - Author	
Cross-Reference List .....	108
Part II Selected References .....	118
Part III Sources of Information .....	120
Appendix A Data Sheet .....	122

## FIGURES

1. Location Map, Boulder County Subsidence Investigations .....	4, 5
2. Location Map, El Paso County Subsidence Investigations .....	68
3. Location Map, Fremont County Subsidence Investigations .....	89
4. Location Map, Jefferson County Subsidence Investigations .....	92
5. Location Map, Weld County Subsidence Investigations .....	109



## INTRODUCTION

This bibliography is a compilation of data on coal mine subsidence studies along the Front Range of Colorado. The information contained within can hopefully be used to facilitate further study of undermined areas subject to increased development pressure from Colorado's growing population.

Specific mine investigation studies were obtained from private consultants and public sources. Many of these reports are available for review in the offices of the Colorado Geological Survey and the Division of Mined Land Reclamation.

Other organizations referred to in the bibliography should be contacted regarding availability of their reports. Addresses for these organizations appear in Part III.

We are grateful to the many county and local government agencies and private individuals who provided valuable references and studies for use in compiling this report. We hope this bibliography will be an ongoing effort and we would be pleased to hear of any additions, corrections, or omissions. In Appendix A, we have included a data sheet to be used for additions of existing and future studies. These data sheets can be completed and sent to the Colorado Geological Survey (address listed in Part III).

## HOW TO USE THE BIBLIOGRAPHY

This bibliography consists of three parts: Part I, annotated bibliography; Part II, selected references; and Part III, sources of information.

Part I references are listed by county. At the beginning of each county section, an index map and cross-reference list is included. Each study is assigned a map reference number. The locations of studies are plotted on the index map using this map reference number. The cross-reference provides a list of map reference numbers matched with authors. The studies are then listed numerically. Additionally, a Colorado Mined Land Reclamation Division identification number (CMLRD I.D.#) is listed in the upper right hand corner of each bibliography reference. This number refers to mine maps on file with the Colorado Division of Mines and information contained in the CMLRD subsidence information system. These numbers are unique for each mine. Where a reference study covers more than one mine, the appropriate CMLRD I.D.#'s are listed in the same order as the mine names.

Part II is a standard bibliography of selected references which are too general for location on the index map. Also included are other useful bibliographies and publications dealing with geology and mine subsidence in Colorado.

Part III lists Federal, State, and local agencies which provide subsidence data. The specific types of data available are listed with each agency.



BOULDER COUNTY

<u>Map Reference No.</u>	<u>Author</u>	<u>Map Reference No.</u>	<u>Author</u>
B1	Aguirre	B46	Amuedo & Ivey, 1979
B2	Barbis, 1979	B48	ATEC Associates, 1985
B3	Barbis, 1979	B49	Deuel & Associates, 1985
B4	Caulkin	B50	Deuel & Associates, 1985
B5	Chen	B51	ATEC Associates, 1986
B6	Cochran, 1973	B52	ATEC Associates, 1986
B7	Cochran, 1979	B53	ATEC Associates, 1986
B8	Cochran, 1982	B54	ATEC Associates, 1987
B9	Cochran, 1982	B55	ATEC Associates, 1987
B10	Cochran, 1983	B56	CTL/Thompson, 1987
B11	Converse	B57	ATEC, 1985
B12	CTL/Thompson, 1982	B58	ATEC, 1985
B13	CTL/Thompson, 1983	B59	Dames & Moore, 1986
B14	CTL/Thompson, 1983	B60	ATEC, 1986
B15	Culver	B61	Tierra, 1984
B16	Gallant		
B17	Myers		
B18	Robinson, C.H.		
B19	Robinson, C.S., 1972		
B20	Robinson, 1972		
B21	Robinson, 1973		
B22	Robinson, 1976		
B23	Sennett		
B24	Summerlee		
B25	Tierra, 1982		
B26	Tierra, 1982		
B27	Tierra, 1982		
B28	Tierra, 1982		
B29	Tierra, 1982		
B30a,b,c	Tierra, 1983		
B31	Tierra, 1983		
B32	Tierra, 1983		
B33	Tierra, 1983		
B34	Tierra, 1983		
B35	Tierra, 1983		
B36	Tierra, 1983		
B37	Tierra, 1983		
B38	Tierra, 1983		
B40	Tierra, 1985		
B41	Tierra, 1984		
B42	Deuel, 1984		
B43	Deuel, 1984		
B44	FM Fox, 1979		
B45	Amuedo & Ivey, 1978		

Missing:

B39 CTL/Thompson, 1984  
 B47 CTL/Thomson, 1981

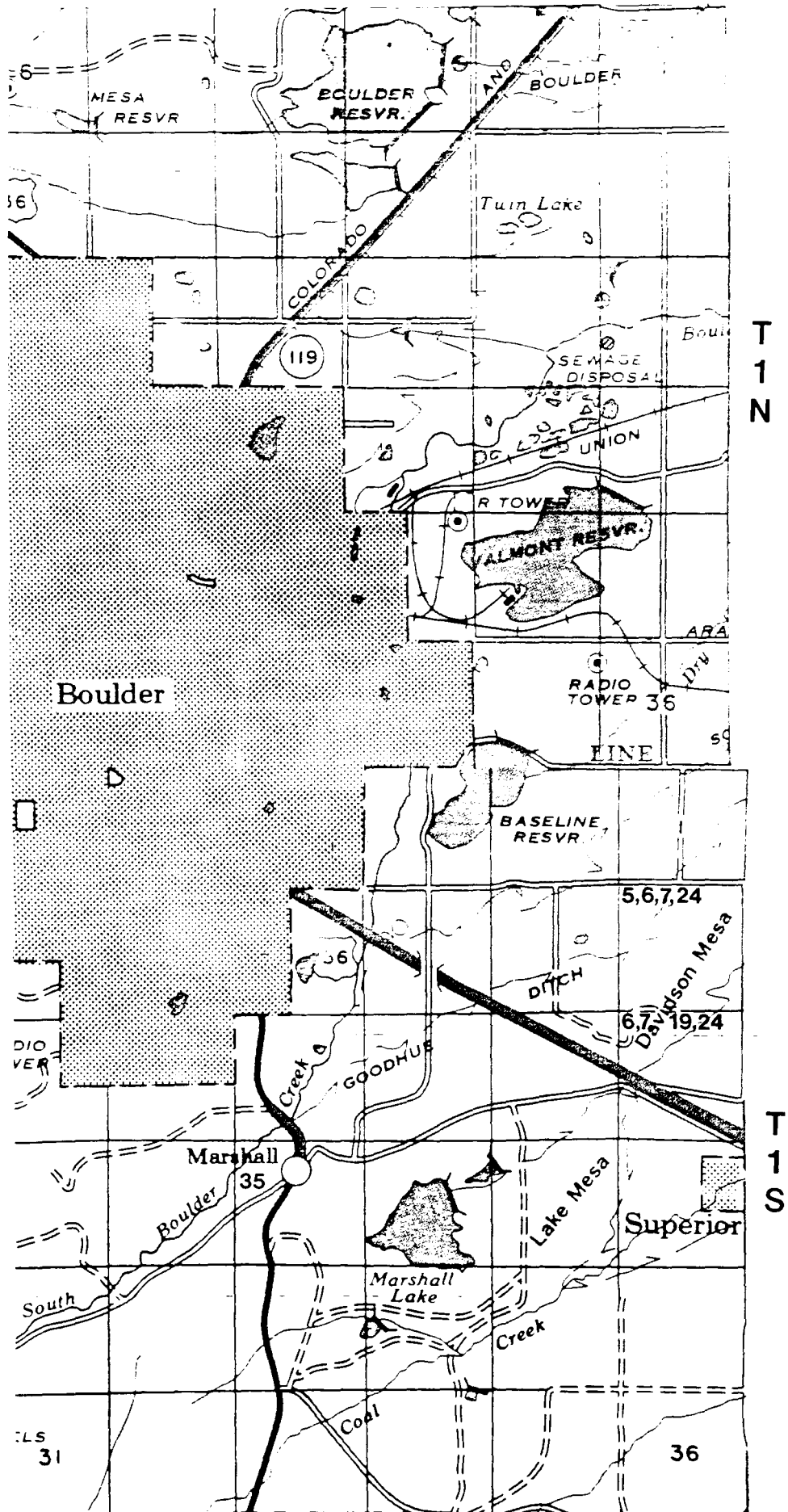


Figure 1a. Location map, Boulder County subsidence investigations.

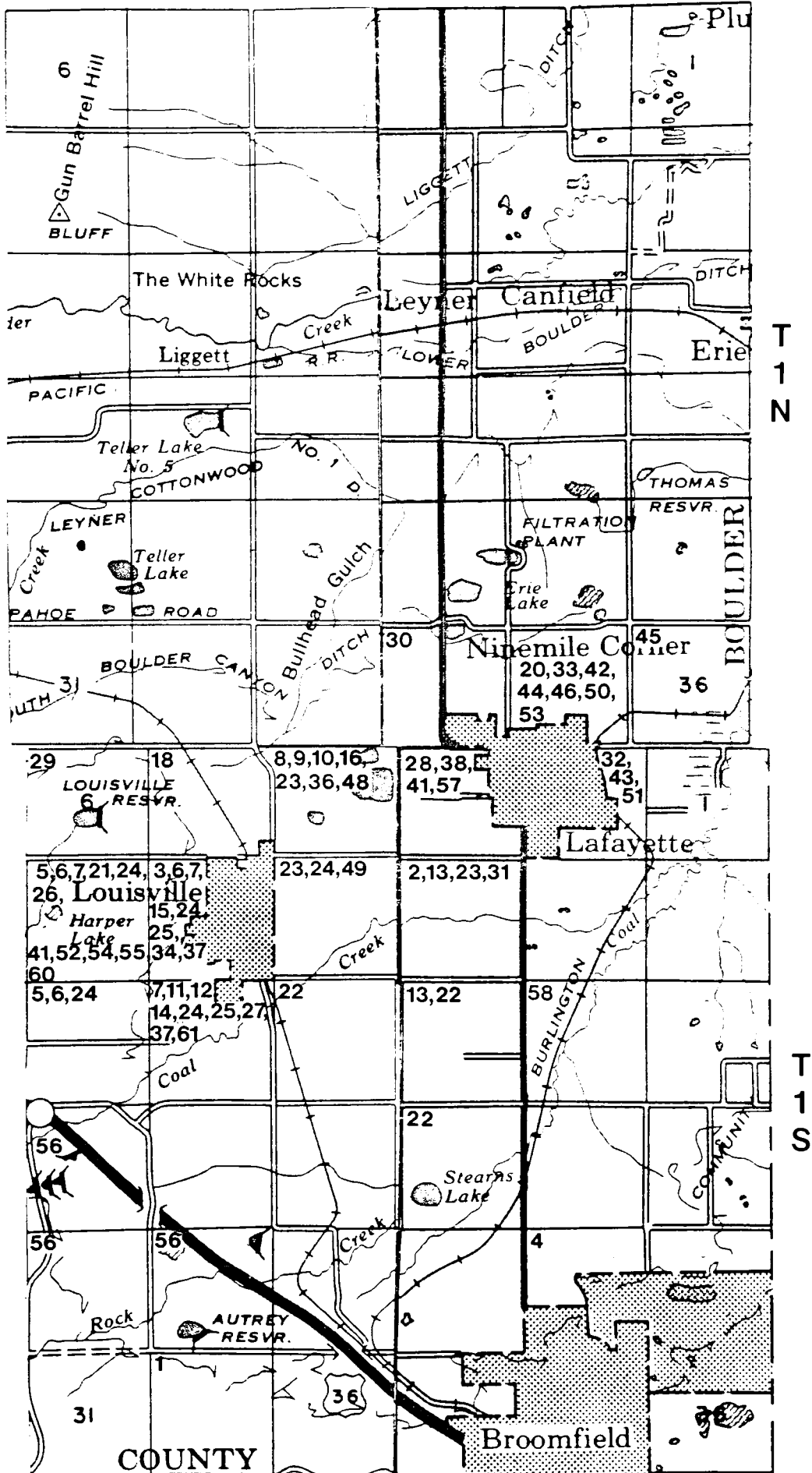


Figure 1b. Location map, Boulder County subsidence investigations.

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B1

CMLRD I.D. # 0130489892101

Author(s): Aguirre Engineers

Date: 1980

Title: Preliminary subsurface investigation and geologic reconnaissance,  
proposed business center, Broomfield, Colorado.

Publisher:

County: Boulder

Location: Sec. 32, T1S, R69W

Mine Name: Monarch No. 2

Contents:

Geophysical logs:

Lithology logs: Yes, 29 drill holes (auger holes 60' deep)

Cross-sections:

Mine maps:

Structure maps:

Other:

Comments: Primarily an engineering report with a section on subsidence.

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B2

CMLRD I.D. # 0130489912501

Author(s): Barbis, Frederic C., and Cochran, Dale M.

Date: 1979

Title: Subsidence study for the City of Louisville proposed development in Section 10, T1S, R69W, Boulder County, Colorado

Publisher: Charles S. Robinson and Assoc.

County: Boulder

Location: Sec. 10, T1S, R69W

Mine Name: Vulcan

Contents:

Geophysical logs:

Lithologic logs: Yes, 3 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other: Surficial geologic map

Comments:

Availability: City of Louisville

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B3

CMLRD I.D. # 0130488872401

Author(s): Barbis, Frederic C., and Robinson, Charles S.

Date: 1979

Title: Subsidence study for Cedarwood Park proposed development in  
Sec. 8, T1S, R69W, Boulder County, Colorado

Publisher: Charles S. Robinson and Assoc.

County: Boulder

Location: Sec. 8, T1S, R69W

Mine Name: Acme

Contents:

Geophysical logs:

Lithology logs: Yes, 1 drill hole

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: City of Louisville

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B4

CMLRD I.D. # 0130489922201

Author(s): Caulkin, William S.

Date: 1980

Title: Subsidence potential at Ridgeview Heights, Broomfield, Colorado

Publisher:

County: Boulder

Location: Section 26, T1S, R69W

Mine Name: Hi-Way

Contents:

Geophysical logs:

Lithology logs: No drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other: Map of observed subsidence features

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B5

CMLRD I.D. # 0130488862401

Author(s): Chen and Associates, Inc.

Date: 1979

Title: Preliminary coal mine subsidence evaluation, three reservoir sites, Boulder and Weld Counties, Colorado

Publisher:

County: Boulder and Weld

Location: Sec. 7, 18, T1S, R69W, Sec. 12, T1S, R70W, Sec. 21, T1N, R68W

Mine Name: Matchless, Eagle

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments: No drilling.

Availability: City of Louisville



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B6

CMLRD I.D. # 0130488852301

Author(s): Cochran, Dale M., and Robinson, Charles S.

Date: 1973

Title: Engineering geology, Paclamar Farms area, Boulder County, Colorado

Publisher: Charles S. Robinson and Assoc.

County: Boulder

Location: Sec. 7, 8, 18, T1S, R69W; Sec. 12, 13, T1S, R70W

Mine Name: Crown

Contents:

Geophysical logs:

Lithology logs: See B21 and B24 for drill holes.

Cross-sections:

Mine maps:

Structure maps:

Other: Geologic map

Comments: Contains 2-page section on subsidence.

Availability: City of Louisville, Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B7

CMLRD I.D. # 130488872501

Author(s): Cochran, Dale M. and Robinson, Charles S.

Date: 1979

Title: Engineering geology, Centennial Valley, Boulder County, Colorado

Publisher: Charles S. Robinson and Assoc.

County: Boulder

Location: Sec. 7, 8, 17, 18, T1S, R69W; Sec. 12, 13, T1S, R70W

Mine Name: Crown, Matchless-Sunland, Fireside

Contents:

Geophysical logs:

Lithology logs: Yes, 13 drill holes, rotary and core holes.

Cross-sections:

Mine maps:

Structure maps:

Other:

Comments: Drill holes are less than 30 ft. deep; 21 auger holes.

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B8

CMLRD I.D. # 0130489902601

Author(s): Cochran, Dale M.

Date: 1982

Title: Phase I, Mine subsidence study, drive-in theatre property,  
Lafayette, Colorado.

Publisher: Converse Consultants

County: Boulder

Location: Sec. 4, T1S, R69W

Mine Name: Electric

Contents:

Geophysical logs:

Lithology logs: Yes, 7 drill holes (See B9)

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B9

CMLRD I.D. # 0130489902601

Author(s): Cochran, Dale M.

Date: 1982

Title: Phase II, Investigation of bedrock overlying abandoned coal mine workings, Electric Mine, drive-in theatre property, Lafayette, Colorado.

Publisher: Converse Consultants

County: Boulder

Location: Sec. 4, T1S, R69W

Mine Name: Electric

Contents:

Geophysical logs:

Lithology logs: Yes, 6 drill holes

Cross-sections:

Mine maps:

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B10

CMLRD I.D. # 130489902601

Author(s): Cochran, Dale M.

Date: 1983

Title: Investigation of bedrock overlying abandoned coal mine workings, Electric Mine, drive-in theatre property, Section 4, T1S, R69W, Lafayette, Colorado

Publisher: Converse Consultants

County: Boulder

Location: Sec. 4, T1S, R69W

Mine Name: Electric

Contents:

Geophysical logs:

Lithology logs: Yes, 9 drill holes (6 from B9 plus 3 new holes)

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B11

CMLRD I.D. # 0130488872401

Author(s): Converse Ward Davis Dixon, Inc.

Date: 1981

Title: Subsidence study, Dutch Creek development, Boulder County, Colorado

Publisher:

County: Boulder

Location: Sec. 17, T1S, R69W

Mine Name: Acme

Contents:

Geophysical logs:

Lithology logs: Yes, 3 drill holes

Cross-sections:

Mine maps:

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B12

CMLRD I.D. # 0130488872401

Author(s): CTL/Thompson, Inc.

Date: 1982

Title: Evaluation of subsidence potential, Dutch Creek subdivision,  
Louisville, Colorado.

Publisher:

County: Boulder

Location: Sec. 17, T1S, R69W

Mine Name: Acme

Contents:

Geophysical logs: gamma, density, caliper, resistivity

Lithology logs: Yes, 5 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other: Compressive strength tests

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B13

CMLRD I.D. # 0130489912501

Author(s): CTL/Thompson, Inc.

Date: 1983

Title: Preliminary evaluation of subsidence potential, Autumn Ridge subdivision, Lafayette, Boulder County, Colorado.

Publisher:

County: Boulder

Location: Sec. 10, 15, T1S, R69W

Mine Name: Vulcan, New Centennial

Contents:

Geophysical logs:

Lithology logs: 7 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other: Subsidence hazard map

Comments:

Availability: Colorado Geological Survey



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B14

CMLRD I.D. # 0130488872401  
0130488872402

Author(s): CTL/Thompson, Inc.

Date: 1983

Title: Evaluation of subsidence potential, Warembourg property,  
Louisville, Colorado.

Publisher:

County: Boulder

Location: Sec. 17, T1S, R69W

Mine Name: Acme, Leader

Contents:

Geophysical logs: resistivity, gamma, density, caliper

Lithology logs: Yes, 8 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other: Subsidence hazard map

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B15

CMLRD I.D. # 0130488872401  
0130488872402

Author(s): Culver, Judi C. and Robinson, Charles S.

Date: 1977

Title: Subsidence study for Colorado Mortgage Company proposed development in T.1S., R.69W., Louisville, Colorado.

Publisher: Charles S. Robinson and Associates, Inc.

County: Boulder

Location: Sec. 8, T1S, R69W

Mine Name: Leader-Ajax

Contents:

Geophysical logs:

Lithology logs: Yes, 5 drill holes

Cross sections: Yes

Mine maps:

Structure maps:

Other:

Comments: No drill hole location map.

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B16

CMLRD I.D. # 0130489892601  
0130488882001

Author(s): Gallant, William A. and Benson, Carl

Date: 1981

Title: Subsidence investigation, Pow Wow Rodeo Park, Boulder County, Colorado.

Publisher: Converse Ward Davis Dixon, Inc.

County: Boulder

Location: Sec. 4, T1S, R69W

Mine Name: Helca No. 1, Rex No. 1

Contents:

Geophysical logs:

Lithology logs: Yes, 3 drill holes

Cross-sections: Yes

Mine maps: Yes

Structure maps:

Other: Calculated maximum subsidence maps

Comments:

Availability: City of Louisville

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B17

CMLRD I.D. # Various

Author(s): Myers, A.R., Hansen, J.B., Lindvall, R.A., Ivey, J.B., and Hynes, J.L.

Date: 1975

Title: Coal mine subsidence and land use in the Boulder-Weld Coal Field, Boulder and Weld Counties, Colorado.

Publisher: Colorado Geological Survey EG-9, Amuedo and Ivey

County: Boulder, Weld

Location: T1S, T1N, T2N; R67W through 70W

Mine Name: Various

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps:

Structure maps:

Other: Extent of mining, depth of cover, mine pillars, thickness of extracted coal, subsidence inventory, and subsidence hazard maps

Comments: Out of print, available for inspection.

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B18

CMLRD I.D. # 0130488882601

Author(s): Robinson, Charles H. and Dea, Peter A.

Date: 1981

Title: Coal mine subsidence study of the Crawford-Reich property, Boulder County, Colorado

Publisher: Converse Ward Davis Dixon, Inc.

County: Boulder

Location: Sec. 5, T1S, R69W

Mine Name: Rex No. 1

Contents:

Geophysical logs:

Lithology logs: Yes, 2 drill holes

Cross-sections:

Mine maps:

Structure maps:

Other:

Comments:

Availability: City of Louisville

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B19

CMLRD I.D. # 0130488852301

Author(s): Robinson, Charles S., and Cochran, Dale M.

Date: 1972

Title: Preliminary report on subsidence at the Crown Mine, Boulder County, Colorado

Publisher: Charles S. Robinson and Associates, Inc.

County: Boulder

Location: Sec. 13, T1S, R70W

Mine Name: Crown

Contents:

Geophysical logs:

Lithology logs: Yes, 5 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B20

CMLRD I.D. # 0130489922701  
0130432932801

Author(s): Robinson, Charles S. and Boyle, Clyde R.

Date: 1972

Title: Report on the undermining and subsidence at Lafayette Park development, Boulder County, Colorado

Publisher: Charles S. Robinson and Associates, Inc.

County: Boulder

Location: Sec. 35, T1N, R69W

Mine Name: Simpson, Mitchell

Contents:

Geophysical logs:

Lithology logs: Yes, 3 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B21

CMLRD I.D. # 0130488862401  
0130488872501

Author(s): Robinson, Charles S. and Boyle, Clyde R.

Date: 1973

Title: Subsidence study at the Matchless-Sunland and Fireside coal mines,  
Section 7, T1S, R69W, Boulder County, Colorado

Publisher: Charles S. Robinson and Associates, Inc.

County: Boulder

Location: Sec. 7, T1S, R69W

Mine Name: Matchless-Sunland and Fireside

Contents:

Geophysical logs:

Lithology logs: Yes, 3 drill holes (included in B24)

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: City of Louisville



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B22

CMLRD I.D. # 0130489892301  
0130489902401

Author(s): Robinson, Charles S., and Culver, Judi C.

Date: 1976

Title: Engineering geology, Colorado Technological Center, Louisville,  
Colorado

Publisher: Charles S. Robinson and Associates, Inc.

County: Boulder

Location: Sec. 15, 16, 22, T1S, R69W

Mine Name: Nonpariel, Regal

Contents:

Geophysical logs:

Lithology logs: Yes, 6 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other: Subsidence potential map

Comments:

Availability: Colorado Geological Survey  
City of Louisville

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B23

CMLRD I.D. # 0130489912401  
0130489902601

Author(s): Sennett, Robert S. and Olson, Richard D.

Date: 1980

Title: Subsidence studies, Centaur Village North, Centaur Village South,  
Boulder County, Colorado

Publisher: Charles S. Robinson and Associates, Inc.

County: Boulder

Location: Sec. 4, 9, 10, T1S, R69W

Mine Name: New Centennial, Electric, Big Lake

Contents:

Geophysical logs:

Lithology logs: Yes, 7 drill holes

Cross-sections:

Mine maps:

Structure maps:

Other: Subsidence hazard map

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B24

CMLRD I.D. # 0130488862401  
0130488872501

Author(s): Summerlee, Thomas E.

Date: 1979

Title: Subsurface investigation, Paclamar Farms project, Boulder County, Colorado

Publisher: Charles S. Robinson and Associates, Inc.: Engineering geology, Centennial Valley, Boulder County, Colorado, Appendix A, 6p.

County: Boulder

Location: Sec. 7,8,17,18, T1S, R69W; Sec. 12,13, T1S, R70W

Mine Name: Crown, Matchless-Sunland, Fireside

Contents:

Geophysical logs:

Lithology logs: Yes, 8 drill holes

Cross-sections:

Mine maps:

Structure maps:

Other:

Comments: 3 drill holes - 1973 See B21  
5 drill holes - 1972 See B19

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B25

CMLRD I.D. # 0130488872402

Author(s): Tierra Consultants, Inc.

Date: 1982

Title: Mine subsidence potential - drilling program, Centennial Valley I  
subdivision, Louisville, Colorado

Publisher:

County: Boulder

Location: Sec. 8, 17, 11S, R69W

Mine Name: Leader

Contents:

Geophysical logs: gamma ray, SP, resistivity, caliper

Lithology logs: Yes, 9 drill holes

Cross-sections: Yes

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B26

CMLRD I.D. # 0130488862401  
0130488872501

Author(s): Tierra Consultants, Inc.

Date: 1982

Title: Report of results: Drilling program for subsidence potential,  
Centennial Valley II subdivision

Publisher:

County: Boulder

Location: Sec. 7, T1S, R69W

Mine Name: Matchless, Fireside

Contents:

Geophysical logs: Yes

Lithology logs: Yes, 12 drill holes

Cross-sections: Yes

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B27

CMLRD I.D. # Various

Author(s): Tierra Consultants, Inc.

Date: 1982

Title: Subsidence potential study: Ten-acre site near Louisville,  
Colorado

Publisher:

County: Boulder

Location: Sec. 17, T1S, R69W

Mine Name: Ajax

Contents:

Geophysical logs: Yes

Lithology logs: Yes, 3 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Tierra Consultants (Now Atec Associates, Inc.)

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B28

CMLRD I.D. # 0130488832502

Author(s): Tierra Consultants, Inc.

Date: 1982

Title: Mine subsidence potential - drilling program, Sutton Estates subdivision, Lafayette, Colorado

Publisher:

County: Boulder

Location: Sec. 3, T1S, R69W

Mine Name: Black Diamond II

Contents:

Geophysical logs: Yes

Lithology logs: Yes, 6 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B29

CMLRD I.D. # 0130488862401

Author(s): Tierra Consultants, Inc.

Date: 1982

Title: Geologic study, Harper Lake expansion

Publisher:

County: Boulder

Location: Sec. 6, T1S, R69W

Mine Name: Matchless

Contents:

Geophysical logs: Yes

Lithology logs: Yes, 6 drill holes

Cross-sections: Yes

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Tierra Consultants (now Atec Associates, Inc.)



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B30a

CMLRD I.D. # 0130488832502

Author(s): Tierra Consultants, Inc.

Date: 1983

Title: Subsidence potential study, Black Diamond Industrial Park,  
Lafayette, Colorado (1 of 3)

Publisher:

County: Boulder

Location: Sec. 34, T1N, R69W

Mine Name: Black Diamond No. 2

Contents:

Geophysical logs: resistivity, sp, gamma, caliper

Lithology logs: Yes, 5 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey  
Tierra Consultants, Inc. (now Atec Associates, Inc.)

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B30b

CMLRD I.D. # 0130488832502

Author(s): Tierra Consultants, Inc.

Date: 1984

Title: Subsidence potential study, Black Diamond Industrial Park,  
Lafayette, Colorado (2 of 3)

Publisher:

County: Boulder

Location: Sec. 34, T1N, R69W

Mine Name: Black Diamond II

Contents:

Geophysical logs: resistivity, sp, gamma, caliper

Lithology logs: 9 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other: Potential strain contours and profiles

Comments: Second study of area, 4 additional holes; first study completed  
1983 w/5 drill holes

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B30c

CMLRD I.D. #0130432912901

Author(s): Atec Associates, Inc.

Date: August, 1985

Title: Geotechnical Engineering Investigation - Black Diamond Industry  
Park (3 of 3)

Publisher: Atec Associates, Inc.

County: Boulder

Location: Sec. 34, T1N, R69W

Mine Name: Black Diamond No. 2

Contents:

Geophysical logs: SP, gamma, resistivity

Lithology logs: 4 drill-hole logs

Cross-sections:

Mine maps:

Structure maps:

Other: Pillar Analysis, Strain Analysis

Comments: Included is 1984 Tierra Study and 1983 Tierra Study

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B31

CMLRD I.D. # 0130489912501

Author(s): Tierra Consultants

Date: 1983

Title: Subsidence potential study, Coal Creek Technological Center

Publisher:

County: Boulder

Location: Sec. 10, T1S, R69W

Mine Name: Vulcan

Contents:

Geophysical logs: Yes  
Lithology logs: Yes, 13 drill holes  
Cross-sections: Yes  
Mine maps: Yes  
Structure maps: Yes  
Other: Strain analysis

Comments:

Availability: Tierra Consultants (now Atec Associates, Inc.)  
Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B32

CMLRD I.D. # 0130489922001

Author(s): Tierra Consultants, Inc.

Date: 1983

Title: Subsidence potential study: Lafayette City Center Shopping Complex

Publisher:

County: Boulder

Location: Sec. 2, T1S, R69W

Mine Name: Strathmore

Contents:

Geophysical logs: Yes

Lithology logs: Yes, 3 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Tierra Consultants, Inc. (now Atec Associates, Inc.)

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B33

CMLRD I.D. # 0130432932801  
0130489922701

Author(s): Tierra Consultants, Inc.

Date: 1983

Title: Subsidence potential, Lafayette Park subdivision

Publisher:

County: Boulder

Location: Sec. 35, T1N, R69W

Mine Name: Mitchell, Simpson

Contents:

Geophysical logs: Yes

Lithology logs: Yes, 6 drill holes

Cross-sections: Yes

Mine maps: Yes

Structure maps:

Other: Strain profile calculations

Comments:

Availability: Tierra Consultants, Inc. (now Atec Associates, Inc.)  
Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B34

CMLRD I.D. # 0130488872401

Author(s): Tierra Consultants, Inc.

Date: 1983

Title: Subsidence potential study: Proposed Pine Street Plaza site,  
Louisville, Colorado

Publisher:

County: Boulder

Location: Sec. 8, T1S, R69W

Mine Name: Acme

Contents:

Geophysical logs: Yes

Lithology logs: Yes, 3 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Tierra Consultants, Inc. (now Atec Associates, Inc.)

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B35

CMLRD I.D. # 0130488812303

Author(s): Tierra Consultants, Inc.

Date: 1983

Title: Subsidence study, site located near Marshall, Colorado

Publisher:

County: Boulder

Location: Sec. 21, T1S, R70W

Mine Name: Lewis, Fox, Eagle

Contents:

Geophysical logs: Yes

Lithology logs: Yes, 2 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Tierra Consultants, Inc. (now Atec Associates, Inc.)



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B36

CMLRD I.D. # 0130489902601

Author(s): Tierra Consultants, Inc.

Date: 1983

Title: Subsidence potential study, Centaur Village North subdivision  
Filing #6, Lafayette, Colorado

Publisher:

County: Boulder

Location: Sec. 4, T1S, R69W

Mine Name: Electric

Contents:

Geophysical logs: resistivity, sp, gamma, caliper

Lithology logs: Yes, 24 drill holes

Cross-sections: Yes

Mine maps: Yes

Structure maps: Yes

Other: Shaft abandonment report

Comments:

Availability: Colorado Geological Survey  
Tierra Consultants, Inc. (now Atec Associates, Inc.)

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B37

CMLRD I.D. # 0130488872402

Author(s): Tierra Consultants, Inc.

Date: 1983

Title: Subsidence potential study on eighteen acres located in the Centennial Valley I subdivision, Louisville, Colorado

Publisher:

County: Boulder

Location: Sec. 8, 17, T1S, R69W

Mine Name: Leader

Contents:

Geophysical logs: resistivity, sp, gamma, caliper

Lithology logs: Yes, 27 drill holes

Cross-sections:

Mine maps: Yes

Structure maps: Yes

Other: Lot summary of subsidence conditions  
Statistical composite of various elevations

Comments:

Availability: Tierra Consultants, Inc. (now Atec Associates, Inc.)  
Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B38

CMLRD I.D. # 0130488832502

Author(s): Tierra Consultants, Inc.

Date: 1983

Title: Subsidence potential study, Churchhill Pointe subdivision,  
Lafayette, Colorado

Publisher:

County: Boulder

Location: Sec. 3, T1S, R69W

Mine Name: Black Diamond II

Contents:

Geophysical logs: resistivity, sp, gamma, caliper

Lithology logs: Yes, 30 drill holes

Cross-sections: Yes

Mine maps: Yes

Structure maps: Yes

Other: Strain analysis report

Comments:

Availability: Colorado Geological Survey  
Tierra Consultants, Inc. (now Atec Associates, Inc.)

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B40

CMLRD I.D. # Various

Author(s): Tierra Consultants, Inc.

Date: 1985

Title: Surface and Mine Features Map, Louisville and Lafayette

Publisher: Colorado Division of Mined Land Reclamation, Inactive Mine Program

County: Boulder

Location: Louisville -Lafayette

Mine Name: Various

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps:           Extent of mining maps (mine features) overlain on air photos and topographic base maps ( 1 inch to 100 feet)

Structure maps:

Other:

Comments:    Louisville is on an airphoto base and Lafayette is on a photographic base.

Availability: Mined Land Reclamation, Inactive Mine Program

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B41

CMLRD I.D. # 0130488862401  
0130488872501

Author(s): Tierra Consultants, Inc. (now Atec Associates, Inc.)

Date: April, 1984

Title: Subsidence Potential Study for Centennial IV -- Master Plan

Publisher:

County: Boulder

Location: Sec. 7, T1S, R69W

Mine Name: Matchless, Fireside

Contents:

Geophysical logs: Resistivity, SP, natural gamma, caliper

Lithology logs: 18 drill holes, 17 rotary holes and 1 partial core hole

Cross-sections:

Mine maps: yes

Structure maps:

Other: Strain profiles and contours

Comments: Rock strength tests  
Drill holes included in B26 and B29

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B42

CMLRD I.D. # 0103489922701  
0103432932801

Author(s): Deuel and Associates, Inc. (formerly Tierra Consultants, Inc.)

Date: November, 1984

Title: Subsidence Potential Study for Marcus Properties Limited,  
Lafayette Project

Publisher:

County: Boulder

Location: Sec. 35, T1N, R69W

Mine Name: Simpson, Mitchell

Contents:

Geophysical logs: Resistivity, SP. Natural Gamma, Caliper

Lithology logs: 34 borings and logs

Cross-sections: Geologic cross section

Mine maps: yes

Structure maps: Structure contour map of top of mine interval

Other: Potential strain calculations and strain countour map,  
damage reducing architectural techniques

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B43

CMLRD I.D. #0130489932602

Author(s): Deuel and Associates, Inc. (formerly Tierra Consultants, Inc.)

Date: December, 1984

Title: Subsidence Potential Study, Proposed Lafayette Elementary School Site

Publisher:

County: Boulder

Location: Sec. 2, T1S, R69W

Mine Name: Cambro

Contents:

Geophysical logs: Resistivity, SP, natural gamma, caliper

Lithology logs: 8 test borings and logs

Cross-sections:

Mine maps: yes

Structure maps:

Other: Strain analysis

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B44

CMLRD I.D. #0130432932801

Author(s): F.M. Fox and Associates, Inc.

Date: 1979

Title: Subsidence Hazard Investigation, Lafayette Park

Publisher:

County: Boulder

Location: Sec. 35, T1N, R69W

Mine Name: Simpson, Mitchell

Contents:

Geophysical logs:

Lithology logs: 8 Test Holes

Cross-sections:

Mine maps: 3 Sheets

Structure maps:

Other: Subsidence Hazard Maps

Comments:

Availability: Colorado Geological Survey



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B45

CMLRD I.D. #0130432952701

Author(s): Amuedo and Ivey

Date: June, 1978

Title: Investigations of Subsidence Potential Proposed Additions to the City of Lafayette Wastewater Treatment Facilities.

Publisher:

County: Boulder

Location: T1N, R69W, Sec. 36

Mine Name: Haywood (Irvington) Mine

Contents:

Geophysical logs: 6

Lithology logs: Yes, 6

Cross-sections:

Mine maps: Yes

Structure maps: Yes

Other: Compressive Strength Tests

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B46

CMLRD I.D. #0130432932801

Author(s): Amuedo and Ivey

Date: November, 1978

Title: Subsidence Evaluation - Lafayette Park Filing No. 2

Publisher:

County: Boulder

Location: Sec. 35, T1N, R69W

Mine Name: Simpson, Mitchell

Contents:

Geophysical logs: No

Lithology logs: No

Cross-sections: No

Mine maps:

Structure maps:

Other: 1 Base Map

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B48

CMLRD I.D. #0130489902601

Author(s): Atec Associates, Inc.

Date: July, 1975

Title: Geotechnical Engineering Investigation - Centaur Villiage Filing  
No. 7

Publisher: Atec Associates, Inc.

County: Boulder

Location: Lafayette, Colorado T1S, R69W, Sec. 4

Mine Name: Hecla and Big Lake Mines

Contents:

Geophysical logs: Yes, 7

Lithology logs: Yes, 7

Cross-sections: Appendix B

Mine maps: Sketches

Structure maps:

Other: Comments from Greg Sherman (Deuel & Associates April, 1985) Strain Analysis, Architectural Techniques to reduce structural damage.

Comments: (Formerly Deuel & Associates; Formerly Tierra Associates)

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B49  
CMLRD I.D. #0130489892502

Author(s): Deuel and Associates, Inc.

Date: May, 1985

Title: Subsidence Potential Study of 6-Acre Proposed Development Site in Lafayette, Colorado

Publisher:

County: Boulder

Location: Phoenix Park, Section 9, T1S, R69W

Mine Name: Rex No. 2 Mine (Hecla No. 2 previously)

Contents:

Geophysical logs: Yes, 5 Appendix B

Lithology logs: Yes, 5

Cross-sections: Yes

Mine maps: Yes

Structure maps:

Other:

Comments: (Formerly, Tierra Associates; now Atec Associates)

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B50

CMLRD I.D. # 0130432932801  
0130489922701

Author(s): Duell and Associates, Inc.

Date: April, 1985

Title: Subsidence Potential Study of Proposed Development Site on  
Property Located in Lafayette, Colorado (Marcus Properties)

Publisher:

County: Boulder

Location: Sec. 35, T1N, R69W

Mine Name: Mitchell, Simpson

Contents:

Geophysical logs: Gamma, Sp, Resistance, Caliper

Lithology logs: Yes

Cross-sections: No

Mine maps: No

Structure maps: No

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B51

CMLRD I.D. # 0130489922001

Author(s): ATEC Associates, Inc.

Date: February, 1986

Title: Lafayette City Center Geotechnical Investigation

Publisher:

County: Boulder

Location: Sec. 2, T1S, R69W

Mine Name: Strathmore

Contents:

Geophysical logs: Gamma, Sp

Lithology logs: Yes

Cross-sections: No

Mine maps: Yes

Structure maps: No

Other: No

Comments: See B32

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B52

CMLRD I.D. # 0130488862401

Author(s): ATEC Associates, Inc.

Date: June, 1986

Title: Subsidence Investigation Enclave Subdivision Louisville, Colorado

Publisher:

County: Boulder

Location: Sec. 7, T1S, R69W

Mine Name: Matchless (in vicinity)

Contents:

Geophysical logs: Gamma

Lithology logs: Yes

Cross-sections: No

Mine maps: No

Structure maps: No

Other: No

Comments: No mining occurred under this site.

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B53

CMLRD I.D. # 0130432932801

Author(s): ATEC Associates, Inc.

Date: November, 1986

Title: Subsidence and Preliminary Geotechnical Engineering Investigation  
Lafayette Park Subdivision, Phase II, Lafayette, Colorado

Publisher:

County: Boulder

Location: Sec. 35, T1N, R69W

Mine Name: Mitchell

Contents:

Geophysical logs: Gamma, Resistance

Lithology logs: Yes

Cross-sections: No

Mine maps: No

Structure maps: No

Other: No

Comments:

Availability: Colorado Geological Survey



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B54

CMLRD I.D. # 0130488862401

Author(s): ATEC Associates, Inc.

Date: May, 1987

Title: The Grove at Harper Lake Subdivision  
Louisville, Colorado

Publisher:

County: Boulder

Location: Sec. 7, T1S, R69W

Mine Name: Matchless

Contents:

Geophysical logs: Gamma, Sp, Resistance, Caliper

Lithology logs: Yes

Cross-sections: No

Mine maps: No

Structure maps: No

Other: No

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B55

CMLRD I.D. # 0130488862401  
0130488872501

Author(s): ATEC Associates, Inc.

Date: November, 1987

Title: Subsidence Engineering Investigation  
Centennial Valley PUD; Centennial Valley, Subdivisions 4, 6, 7, 8,  
and  
the Grove at Harper Lake

Publisher:

County: Boulder

Location: Sec. 7, T1S, R69W

Mine Name: Matchless, Fireside

Contents:

Geophysical logs:	Gamma, Sp, Resistance, Caliper
Lithology logs:	Yes
Cross-sections:	No
Mine maps:	Yes
Structure maps:	No
Other:	No

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B56

CMLRD I.D. # 01304888512101  
0130489892101

Author(s): CTL/Thompson, Inc.

Date: November, 1987

Title: Evaluation of subsidence potential Rock Creek Ranch Development,  
Superior, Colorado

Publisher:

County: Boulder and Jefferson

Location: Sec. 19, 29, 30, T1S, R69W

Mine Name: Industrial, Monarch No. 2

Contents:

Geophysical logs: Gamma, Caliper, Density

Lithology logs: Yes

Cross-sections: No

Mine maps: Yes

Structure maps: No

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B57

CMLRD I.D. # 0130489922001

Author(s): ATEC Associates, Inc.

Date: January, 1985

Title: Subsidence Investigation Countryside Village Lafayette, Colorado

Publisher:

County: Boulder

Location: Sec. 3, T1S, R69W

Mine Name: Strathmore

Contents:

Geophysical logs: Gamma, Sp, Resistance

Lithology logs: Yes

Cross-sections: No

Mine maps: No

Structure maps: No

Other:

Comments: Area not undermined

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B58

CMLRD I.D. # 0130489922201

Author(s): ATEC Associates, Inc.

Date: December, 1985

Title: Subsidence Investigation Lafayette Business Park Lafayette,  
Colorado

Publisher:

County: Boulder

Location: Sec. 14, T1S, R69W

Mine Name: Hi-Way

Contents:

Geophysical logs: Gamma, Sp, Resistance

Lithology logs: Yes

Cross-sections: No

Mine maps: No

Structure maps: No

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B59

CMLRD I.D. # Various

Author(s): Dames & Moore

Date: May, 1986

Title: Boulder County Subsidence Investigation, Volumes I, II, III

Publisher:

County: Boulder

Location: T1S, R68W-R69W-R70W; T1N, R68W-R69W

Mine Name: Various

Contents:

Geophysical logs: Gamma, Density, Caliper, Resistance

Lithology logs: Yes - 150 logs

Cross-sections: Yes - eight

Mine maps: Yes

Structure maps: No

Other: Maps include: overburden thicknesses, subsidence potential and hazard zones

Comments: This study excludes mines in the vicinity of Marshall and in northeast Boulder County

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B60

CMLRD I.D. # 0130488862401  
0130488872501

Author(s): ATEC Associates, Inc.

Date: February, 1986

Title: Subsidence Investigation Saddleback Subdivision, Louisville,  
Colorado

Publisher:

County: Boulder

Location: Sec. 7, T1S, R69W

Mine Name: Matchless, Fireside

Contents:

Geophysical logs: Gamma, Sp, Resistance, Caliper

Lithology logs: Yes

Cross-sections: No

Mine maps: No

Structure maps: No

Other: Strain contour map

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. B61

CMLRD I.D. # 0130488872402

Author(s): Tierra Consultants, Inc.

Date: February, 1984

Title: Addendum to Subsidence Potential Study on Eighteen Acres located in the Centennial Valley I Subdivision, Louisville, Colorado

Publisher:

County: Boulder

Location: Sec. 17, T1S, R69W

Mine Name: Leader

Contents:

Geophysical logs: Gamma, Sp, Resistance, Caliper

Lithology logs: Yes

Cross-sections: No

Mine maps: Yes

Structure maps: Yes

Other:

Comments: This study was a follow-up to the 1983 study "B37".

Availability: Colorado Geological Survey



EL PASO COUNTY

<u>Map Reference No.</u>	<u>Author</u>
E1	Colorado Springs, 1967
E2a,b	CTL/Thompson, 1982, 1983
E3	Lewis (Dames and Moore), 1973
E4	Lincoln Devore, 1981
E5	Woodward Clyde Associates, 1967
E7	RockyMtn. Geotechnical, 1983
E8	CTL/Tnompson, 1984
E9	Rocky Mountain Geotechnical, 1983
E10	Rocky Mountain Geotechnical, 1983
E11	Rocky Mountain Geotechnical, 1983
E12	Rocky Mountain Geotechnical, 1983
E13	Rocky Mountain Geotechnical, 1984
E14	Tierra Consultants, 1984
E15	Tierra Consultants, 1984
E16	Lincoln DeVore, 1984
E17	Michael Baker, Jr., 1984
E18	Douglas, Cory and Fisk, 1955
E19	Dames/Moore, 1985

Missing:

E6 CTL/Thompson

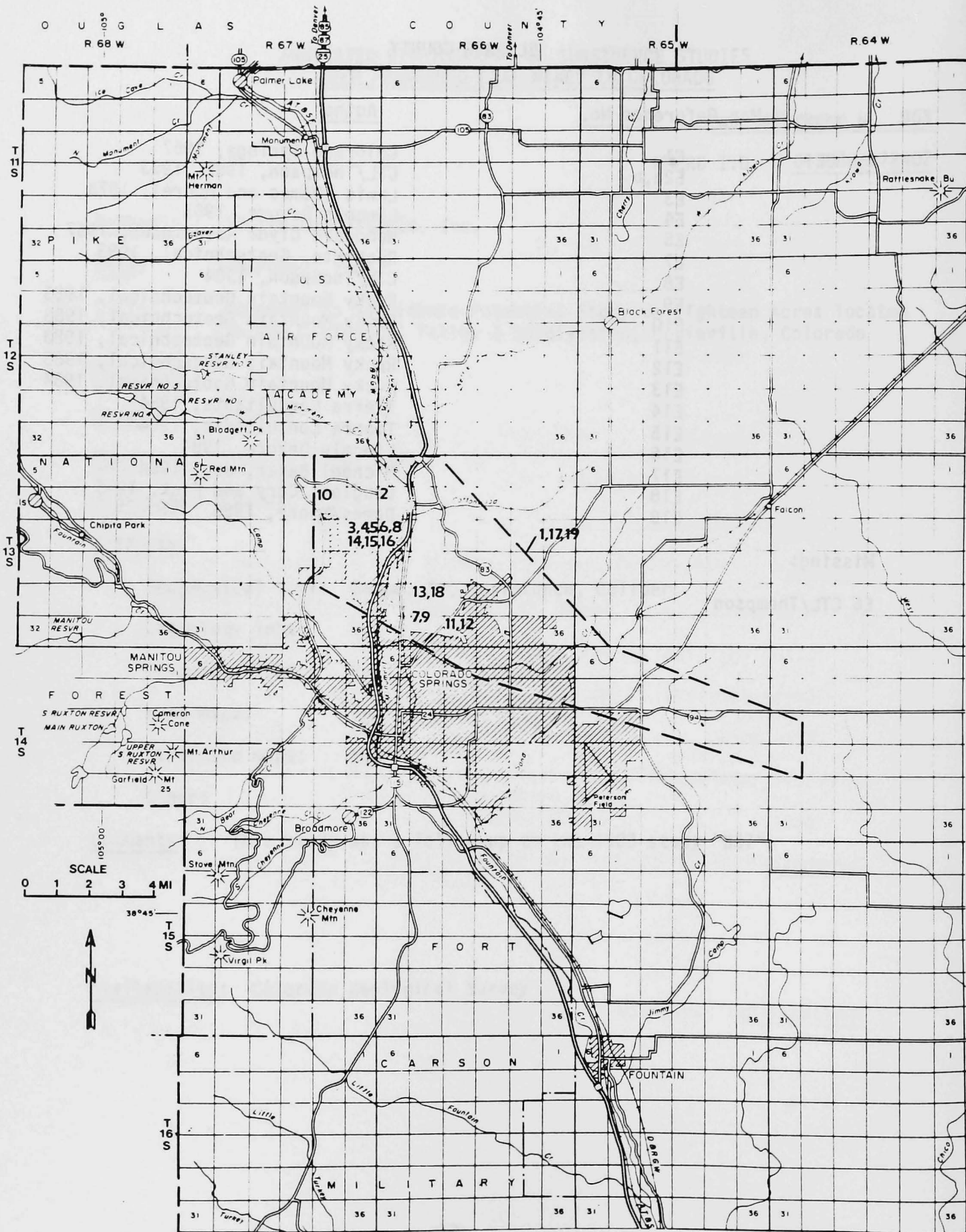


Figure 2. Location map, El Paso County subsidence investigations.

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E1

CMLRD I.D. # Various

Author(s): Colorado Springs Planning Department

Date: 1967

Title: Mining report, Colorado Springs Coal Field, a guide for future land use

Publisher: City of Colorado Springs

County: El Paso

Location: T13S, T14S R66W, R77W

Mine Name: Various

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps: Yes

Structure maps:

Other: Summary of coal mine operations in El Paso County

Comments: Compilation of mine data for mines located in Colorado Springs. Also, street maps superimposed on mine maps.

Availability: Pikes Peak Area council of Governments

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E2a

CMLRD I.D. # 0410947140703

Author(s): CTL/Thompson, Inc.

Date: 1982

Title: Evaluation of subsidence potential, Ravencrest subdivision,  
Woodmen Road and Rockrimmon Boulevard, Colorado Springs, Colorado

Publisher:

County: El Paso

Location: Sec. 7, T13S, R66W

Mine Name: Pikeview and Carlton

Contents:

Geophysical logs: gamma, density, caliper

Lithology logs: Yes

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E2b

CMLRD I.D. # 0410947140703

Author(s): CTL/Thompson, Inc.

Date: Nov 30, 1983

Title: Subsidence evaluation, Lots 3, 7, 8, and 9, Block 4, Rockrimmon Cliffs Subdivision, Colorado Springs, Colorado

Publisher:

County: El Paso

Location: Sec. 18, T13S, R66W Rockrimmon and I-25

Mine Name: Pikeview

Contents: 8 drill holes

Geophysical logs: gamma, density, caliper

Lithology logs: Yes

Cross-sections: Yes

Mine maps: Yes

Structure maps:

Other: Video camera logs on 2 holes

Comments: Proposing to backfill the main slope entrance. Present subdivision name - North Creek 1, 2, 3

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E3

CMLRD I.D. # 0410947150703

Author(s): Lewis, John H.

Date: 1973

Title: Geologic considerations, Rockrimmon dam and reservoir site,  
Colorado Springs, Colorado

Publisher: Dames and Moore

County: El Paso

Location: Sec. 18, T13S, R66W; Sec. 13, T13S, R67W

Mine Name: Pikeview

Contents:

Geophysical logs:

Lithology logs: Yes, 19 drill holes

Cross-sections: Yes

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E4

CMLRD I.D. # 0410947140703

Author(s): Lincoln Devore

Date: 1981

Title: Preliminary surface soils investigation, Pikeview mine portal area, Colorado Springs, Colorado

Publisher:

County: El Paso

Location: Sec. 18, T13S, R66W

Mine Name: Pikeview

Contents:

Geophysical logs:

Lithology logs: Yes

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E5

CMLRD I.D. # 0410947140703

Author(s): Woodward, Clyde, Sherard and Associates

Date: 1967

Title: Effects of underground mine on land development, Pikeview mine area

Publisher:

County: El Paso

Location: Sec. 18, T13S, R66W; Sec. 13, T13S, R67W

Mine Name: Pikeview

Contents:

Geophysical logs:

Lithology logs:

Cross-sections: Yes

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E7

CMLRD I.D. # 0410947170307  
0410947170301

Author(s): Rocky Mountain Geotechnical, Inc.

Date: July 11, 1983

Title: Mine Subsidence Investigation, Cragmoor Properties  
El Paso County, Colorado

Publisher:

County: El Paso

Location: NE-1/4, Sec. 32, SE1/4, Sec. 29, T13S, R66W

Mine Name: Corley, Busy Bee, Patterson

Contents:

Geophysical logs:

Lithology logs: 10 test holes and Lithology logs

Cross-sections: 2 subsurface profiles through site

Mine maps: Mine map and test boring Location diagram

Structure maps:

Other: Table of Estimates of Maximum Ground Surface Effects  
Due to Subsidence; Map of existing subsidence features

Comments: Followup study to Rocky Mtn. Geotechnical report "Subsurface  
Soils Investigation, First West Group, Colorado Springs, CO",  
RMG Job No. 79F.

Availability: Rocky Mountain Geotechnical, Inc.  
Available for inspection at the Colorado Geological Survey and  
Colorado Division of Mined Land Reclamation, Inactive Mine Program

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E8

CMLRD I.D. # 0410947140703

Author(s): CTL/Thompson, Inc. (Richard Phillips, Darrel Holmquist)

Date: 1984

Title: Evaluation of subsidence potential, Saddle Ridge and Shave/Black  
Parcels, Pikeview Mine

Publisher:

County: El Paso

Location: Saddle Ridge Portion  
E/2 Sec. 18, T13S, R67W and W1/2 Sec. 18, T13S, R66W  
Shave/Black parcel NW1/4 Sec. 18, T13S, R66W

Mine Name: Pikeview

Contents: 15 exploratory borings

Geophysical logs: gamma logs, density logs, caliper logs

Lithology logs: 15

Cross-sections: 2

Mine maps: Pikeview mine map for the property area

Structure maps: 2 depth to mining maps

Other: Mining history, cores, strength tests (indirect  
tensile strength unconfined pressure and pointload  
tests), Subsidence risk map

Comments: Borings 1-6A are on the Saddle Ridge Parcel. Borings 7 through 9  
are on the Shave/Black parcels

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E9

CMLRD I.D. # 0410947170307  
0410947170301

Author(s): Rocky Mountain Geotechnical, Inc. (Ken Myers)

Date: January 18, 1983

Title: Subsurface Soils Investigation, First West Group

Publisher:

County: El Paso

Location: NE 1/4 Sec. 32, SE 1/4 Sec. 29, T13S, R66W

Mine Name: Busy Bee, Corley, Patterson

Contents:

Geophysical logs:

Lithology logs: 10 borings and logs

Cross-sections:

Mine maps: Mine Map and Test Boring Location Diagram

Structure maps:

Other: Table of Maximum Surface Subsidence Predictions

Comments: Same property as Rocky Mountain Geotechnical Report No. 2570/3743 (E7 this report), "Mine Subsidence Investigation, Cragmoor Properties."

Availability: Colorado Geological Survey, Division of Mined Land Reclamation,  
Inactive Mine Program

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E10

CMLRD I.D. # 04010947110801  
04010947110802

Author(s): Rocky Mountain Geotechnical, Inc.

Date: September 2, 1983

Title: Subsidence Investigation, Alex Patterson Mine.

Publisher:

County: El Paso

Location: SE 1/4 SW 1/4 Sec 11. T13S, R67W

Mine Name: Alex Patterson

Contents:

Geophysical logs:

Lithology logs: 4 test borings with lithology descriptions

Cross-sections:

Mine maps:

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey; Mined Land Reclamation Division,  
Inactive Mine Program.

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E11

CMLRD I.D. # 0410947180201

Author(s): Rocky Mountain Geotechnical, Inc.

Date: November 28, 1983

Title: 2822 Country Club Circle Abandoned Mine Subsidence Investigation

Publisher:

County: El Paso

Location: Sec. 33, T13S, R66W

Mine Name: Rapson

Contents:

Geophysical logs:

Lithology logs: Two test borings with lithology descriptions

Cross-sections:

Mine maps:

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey; Mined Land Reclamation Division,  
Inactive Mine Program.

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E12

CMLRD I.D. # 0410947180201

Author(s): Rocky Mountain Geotechnical, Inc.

Date: July 11, 1983

Title: Mine Subsidence Report 2858 Country Club Place, Colorado Springs,  
Colorado

Publisher:

County: El Paso

Location: Sec. 33, T13S, R66W

Mine Name: Rapson

Contents:

Geophysical logs:

Lithology logs: 2 test borings with lithology descriptions

Cross-sections: Subsurface profile

Mine maps:

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey; Mined Land Reclamation Division,  
Inactive Mine Program.

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E13

CMLRD I.D. # 0410947170307  
0410947170308

Author(s): Rocky Mountain Geotechnical, Inc.

Date: January 30, 1984

Title: Mine Subsidence Analysis, Easternmost Portion of University  
Commons, Colorado Springs, Colorado

Publisher:

County: El Paso

Location: Sec. 29, T13S, R66W

Mine Name: Corley No. 3

Contents:

Geophysical logs:

Lithology logs: 13 test borings with lithology descriptions, plus 10  
test borings from previous studies

Cross-sections: Mine map with test boring locations

Mine maps: Mine map with test boring locations

Structure maps:

Other: Rock mechanics:

12 Brazilian tensile strength tests, 6 beam flexure  
tests, 11 unconfined compressive strength tests;  
2 strain contour maps, 2 subsidence contour maps

Comments: Same property as E7 and E9 this report

Availability: Colorado Geological Survey, Mined Land Reclamation Division,  
Inactive Mine Program

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E14

CMLRD I.D. # 0410947140703

Author(s): Tierra Consultants, Inc. (now Atec Associates)

Date: April, 1984

Title: Subsidence Potential Study, Rockrimmon Property

Publisher:

County: El Paso

Location: Sec. 13, T13S, R67W

Mine Name: Pikeview

Contents: 3 test borings

Geophysical logs: Resistivity, spontaneous potential, gamma caliper logs

Lithology logs: 3 lithology descriptions

Cross-sections: Single profile

Mine maps: Drill hole location map with general mine workings

Structure maps:

Other: Potential strain analysis, maximum potential subsidence

Comments: First of two studies of property

Availability: Colorado Geological Survey



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E15

CMLRD I.D. # 0410947140703

Author(s): Tierra Consultants, Inc. (now Atec Associates)

Date: June, 1984

Title: Subsidence Potential Study, Rockrimmon-Sommerset

Publisher:

County: El Paso

Location: Sec. 13, T13S, R67W

Mine Name: Pikeview

Contents: 4 test borings (plus 3 from previous study)

Geophysical logs: Resistivity, spontaneous potential, gamma and caliper logs

Lithology logs: 4 lithology descriptions

Cross-sections: Single profile

Mine maps: Drill hole location map with general mine workings

Structure maps:

Other: Strain contour map

Comments: Final report of two studies

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E16

CMLRD I.D. # 041094714703

Author(s): Lincoln Devore Testing Laboratory, Inc.

Date: Feb. 3, 1984; May 25, 1984

Title: Subsidence Evaluation Proposed North Pointe Center and Subsidence Evaluation Addendum

Publisher:

County: El Paso

Location: Sec. 18, T13S, R66W

Mine Name: Pikeview

Contents: 14 test borings

Geophysical logs: Natural gamma, gamma-gamma and caliper, buorehole camera

Lithology logs: Yes

Cross-sections:

Mine maps: Final Pikeview - 1957 Mine map and test hole location map  
1901 Pikeview Mine Map, Carlton Coal Mine - 1903

Structure maps:

Other: Subsidence profile and strain curve, tensile strength of core samples

Comments: Subsequent mine backfill proposals by Goodson & Assoc. completed for this project (June 27, 1984)

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E17

CMLRD I.D. # Various

Author(s): Michael Baker, Jr.

Date: 1984

Title: Colorado Springs Land Use and Building Code Project

Publisher: Office of Surface Mining

County: El Paso

Location: T13S, T14S, R66W, R67W

Mine Name: Various

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps: Mine maps plotted relative to surface features

Structure maps:

Other: This study is an update of the 1967 Colorado Springs study

Comments:

Availability: Mined Land Reclamation Division, Inactive Mine Program;  
Colorado Geological Survey; Office of Surface Mining; Colorado  
Springs Planning Department

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E18

CMLRD I.D. # 0130489892101

Author(s): Douglas, Corey & Fisk

Date: April 13, 1955

Title: Report on Surface Settlement of the Rangeview Subdivision

Publisher:

County: El Paso

Location: S 1/2 NW 1/4 Sec. 29, T13S, R66W

Mine Name: Curtis, City Coal Mine No. 1 - Williams, Williamsville, New  
Altitude and Danville

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps: Surface topography and features overlain on the mine  
maps

Structure maps:

Other:

Comments: Historical, first subsidence hazard investigation for a  
subdivision

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. E19

CMLRD I.D. # Various

Author(s): Dames and Moore

Date: March, 1985

Title: Colorado Springs Subsidence Investigation - Executive Summary,  
Volume 1, 2 and 3

Publisher: Colorado Mined Land Reclamation Division, Inactive Mine  
Reclamation Program

County: El Paso

Location: Colorado Springs area - Rockrimmon, Cragmor, Palmer Park, Rustic  
Hills

Mine Name: 25 different mines

Contents: Approximately 100 drill holes

Geophysical logs: Yes

Lithology logs: Yes

Cross-sections: Yes

Mine maps: Yes

Structure maps: Yes

Other:

Comments:

Availability: Colorado Geological Survey  
Colorado Mined Land Reclamation Division  
City of Colorado Springs - Planning Department  
Penrose Regional Library - Colorado Springs

FREMONT COUNTY

Map Reference No.

F1

Author

McDermid Engineering  
Assoc., 1983

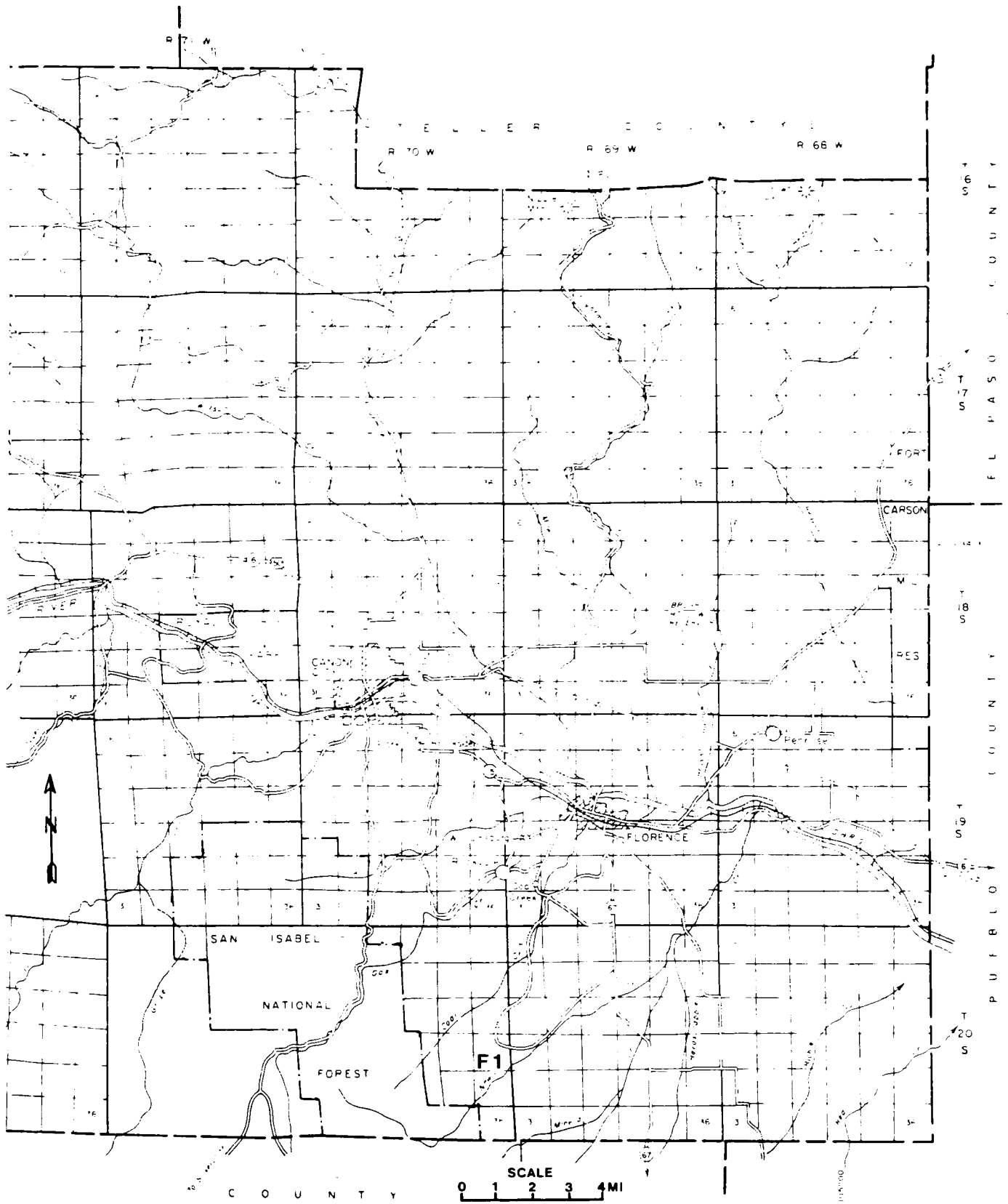


Figure 3. Location map, Fremont County subsidence investigations.

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. F1

CMLRD I.D. # 0431172835001

Author(s): McDermid Engineering Associates, Inc.

Date: 1983

Title: City of Florence, Newlin Creek Waterline rehabilitation,  
feasibility, and design report

Publisher: State of Colorado, Mined Land Reclamation Division

County: Fremont

Location: Sec. 24, 25, T20S, R70W

Mine Name: Canon City

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps: Yes

Structure maps:

Other: Subsidence zone map

Comments: This is a study on impact of subsidence on a water pipeline.

Availability: Colorado Mined Land Reclamation Division



JEFFERSON COUNTY

<u>Map Reference No.</u>	<u>Author</u>
J1	Amuedo and Ivey, 1981
J2	Amuedo and Ivey, 1981
J3	Amuedo and Ivey, 1982
J4	Chen
J5	CTL/Thompson, 1981
J6	CTL/Thompson, 1982
J7	CTL/Thompson, 1983
J8	Dames & Moore, 1983
J9	Dames & Moore, 1983
J10	F.M. Fox, 1972
J11	F.M. Fox, 1977
J12	Goodson
J13	Lucas
J14	Myers
J15	Amuedo and Ivey, 1983

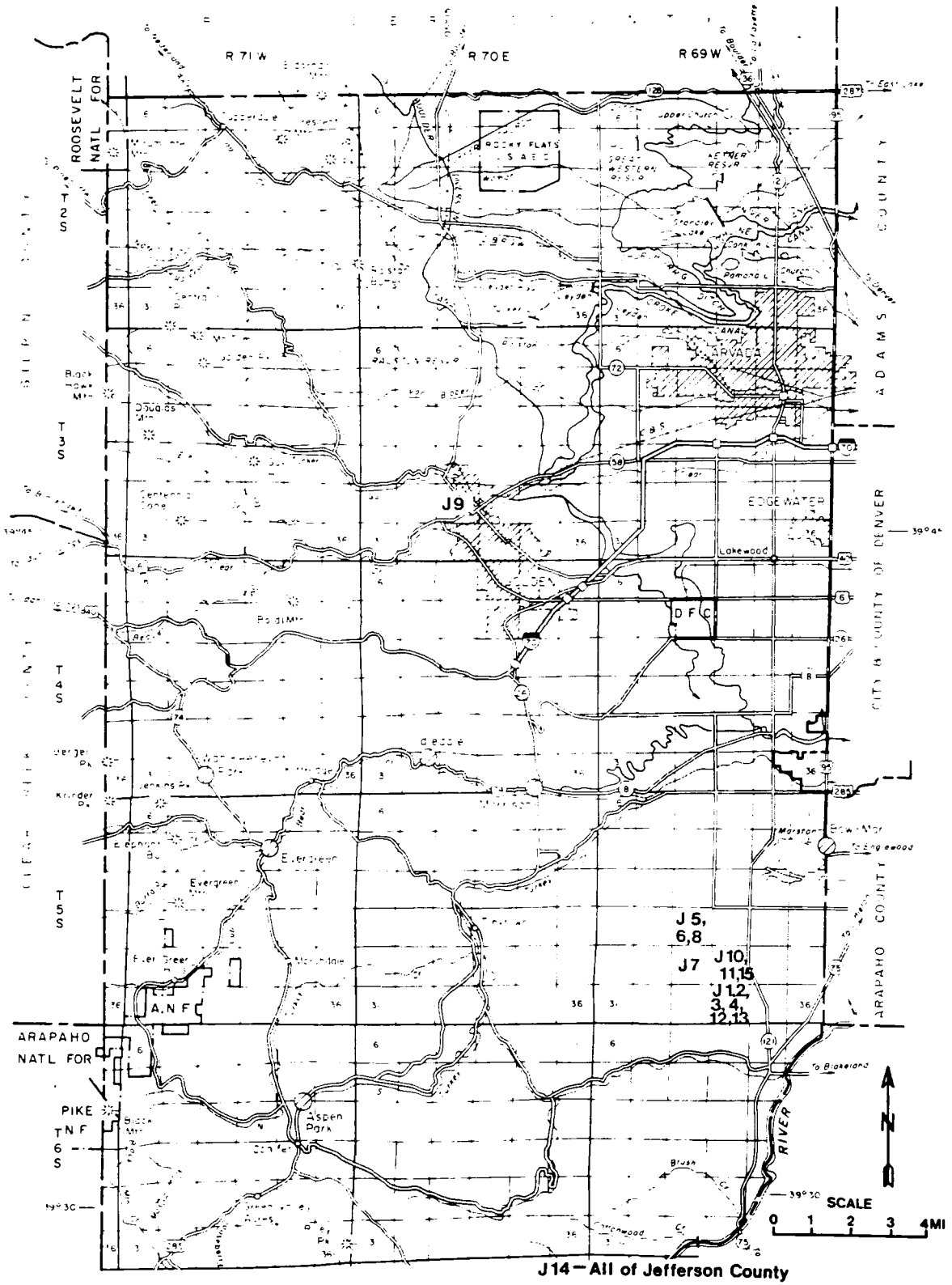


Figure 4. Location map, Jefferson County subsidence investigations.

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J1

CMLRD I.D. # 0590660918001

Author(s): Amuedo and Ivey

Date: 1981

Title: Subsidence investigation, Phase I, Virginia Mine, South Garrison and Ken Caryl, Jefferson County, Colorado

Publisher:

County: Jefferson

Location: Sec. 34, T5S, R69W

Mine Name: Virginia

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps: Yes

Structure maps:

Other: Predicted surface subsidence map, predicted surface strain map.

Comments:

Availability: Jefferson County

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J2

CMLRD I.D. # 0590550918001

Author(s): Amuedo and Ivey

Date: 1981

Title: Phase II, subsidence investigation, Virginia Mine, So. Garrison Street and Ken Caryl Rd., Jefferson County, Colorado

Publisher:

County: Jefferson

Location: Sec. 34, T5S, R69W

Mine Name: Virginia

Contents:

Geophysical logs: gamma, sp, resistivity, caliper, density

Lithology logs: Yes

Cross-sections: Yes

Mine maps:

Structure maps:

Other: Predicted surface subsidence map.

Comments:

Availability: Jefferson County

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J3

CMLRD I.D. # 0590660918001

Author(s): Amuedo and Ivey

Date: 1982

Title: Mine subsidence investigation, Virginia Mine, Jefferson County, Colorado, Vol. 1 and 2

Publisher: Jefferson County

County: Jefferson

Location: Sec. 34, T5S, R69W

Mine Name: Virginia

Contents:

Geophysical logs: gamma, density, caliper, resistivity, drift survey

Lithology logs: Yes: auger drill hole, 8 rotary drill holes

Cross-sections: Yes

Mine maps: Yes

Structure maps:

Other: Depth sounding resistivity surveys, subsidence and strain maps.

Comments:

Availability: Mined Land Reclamation Division  
Jefferson County

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J4

CMLRD I.D. # 0590660918001

Author(s): Chen and Associates

Date: 1981

Title: Foundation recommendations in areas of potential ground subsidence, Albertson's Food Center #8-P, Ken Caryl Rd. and Garrison Street, Jefferson County, Colorado

Publisher:

County: Jefferson

Location: Sec. 34, T5S, R69W

Mine Name: Virginia

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps:

Structure maps:

Other:

Comments: Text only.

Availability: Jefferson County

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J5

CMLRD I.D. # 0590660908202

Author(s): CTL/Thompson, Inc.

Date: 1981

Title: Evaluation of subsidence potential, Coal Mine West Project, Coal Mine Rd. and Kipling Street, Jefferson County, Colorado

Publisher:

County: Jefferson

Location: Sec. 21, T5S, R69W

Mine Name: Economy

Contents:

Geophysical logs: gamma, density, caliper, resistivity

Lithology logs: Yes, 6 drill holes

Cross-sections: Yes

Mine maps: Yes

Structure maps:

Other: Subsidence hazard map.

Comments: E-logs not available at Colorado Geological Survey.

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J6

CMLRD I.D. # 0590660908202

Author(s): CTL/Thompson, Inc.

Date: 1983

Title: Evaluation of subsidence potential, Coal Mine Road alignment, Coal Mine Road and Kipling Street, Jefferson County, Colorado

Publisher:

County: Jefferson

Location: Sec. 21, T5S, R69W

Mine Name: Economy

Contents:

Geophysical logs: gamma, density, caliper, resistivity

Lithology logs: 8 drill holes

Cross-sections:

Mine maps: Yes

Structure maps:

Other: Strain profile, subsidence profile

Comments:

Availability: Colorado Geological Survey



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J7

CMLRD I.D. # 0590660908201  
0590660908202

Author(s): CTL/Thompson, Inc.

Date: 1982

Title: Subsidence potential of the area between the Littleton and Economy mines, Coal Mine Rd. and Kipling Street, Jefferson County, Colorado

Publisher:

County: Jefferson

Location: Sec. 28, T5S, R69W

Mine Name: Littleton, Economy

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps: Yes

Structure maps:

Other: Subsidence risk map.

Comments:

Availability: Colorado Geological Survey  
Jefferson County

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J8

CMLRD I.D. # 0590660908202

Author(s): Dames and Moore

Date: 1983

Title: Report, northern end of the Economy Mine subsidence hazard study, Jefferson County, Colorado

Publisher: State of Colorado, Mined Land Reclamation Division

County: Jefferson

Location: Sec. 21, T5S, R69W

Mine Name: Economy

Contents:

Geophysical logs: gamma, resistivity, gamma density, caliper

Lithology logs: Yes: 11 rotary, 1 angle core drill hole

Cross-sections: Yes

Mine maps:

Structure maps: Yes

Other: Surface strain contours, trough subsidence contours, hazard and utility location map

Comments:

Availability: Mined Land Reclamation Division

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J9

CMLRD I.D. # 0590545800001

Author(s): Dames and Moore

Date: 1983

Title: Report, Rubey Clay - mine subsidence hazard study, Golden, Colorado

Publisher:

County: Jefferson

Location: Sec. 28, T3S, R70W

Mine Name: Old Loveland, New Loveland, New White Ash, New Mine

Contents:

Geophysical logs: gamma, density, resistivity, caliper

Lithology logs: Yes

Cross-sections: See comments

Mine maps: Yes

Structure maps: Yes

Other: Surface strain contour map.

Comments: Cross-section maps are of mine workings.

Availability: Jefferson County, City of Golden, Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J10

CMLRD I.D. # 0590660908201

Author(s): F.M. Fox and Associates, Inc.

Date: 1972

Title: Subsidence evaluation, SE/4 of the NW/4, Section 27, Township  
5 South, Range 69 West, Jefferson County, Colorado

Publisher:

County: Jefferson

Location: Sec. 27, T5S, R69W

Mine Name: Littleton

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps:

Structure maps:

Other: Subsidence contour map

Comments:

Availability: Jefferson County

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J11

CMLRD I.D. # 0590660908203  
0590660908202  
0590660918001

Author(s): F.M. Fox and Associates, Inc.

Date: 1977

Title: Abandoned coal mine review for the Meadows planned development,  
Jefferson County, Colorado

Publisher:

County: Jefferson

Location: Sec. 21,27,34, T5S, R69W

Mine Name: Littleton, Economy, Virginia

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps: Yes

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J12

CMLRD I.D. # 0590060918001

Author(s): Goodson and Associates, Inc.

Date: 1983

Title: Virginia Mine subsidence hazard evaluation project

Publisher: State of Colorado, Mined Land Reclamation Division

County: Jefferson

Location: Sec. 34, T5S, R69W

Mine Name: Virginia

Contents:

Geophysical logs: Self-potential, resistivity, resistance, gamma,  
gamma-gamma, caliper

Lithology logs: See comments

Cross-sections: Strain and geologic

Mine maps: Yes

Structure maps: Yes

Other: Subsidence hazard zone map

Comments: Daily drilling report.  
Subsidence monitoring system design.

Availability: Mined Land Reclamation Division  
Jefferson County  
Monthly survey results from subsidence monitoring system are  
available at the Mined Land Reclamation Division

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J13

CMLRD I.D. # 0590660918001

Author(s): Lucas, J.C. and Russell, C.

Date: 1984

Title: Investigation of mine conditions beneath a southwest metropolitan water and sanitation district sewer line, Virginia Mine, Jefferson County, Colorado

Publisher: State of Colorado, Mined Land Reclamation Division

County: Jefferson

Location: Sec. 34, T5S, R69W

Mine Name: Virginia

Contents:

Geophysical logs: caliper, gamma-gamma, gamma

Lithology logs: Yes, 5 drill holes

Cross-sections:

Mine maps:

Structure maps:

Other:

Comments:

Availability: Mined Land Reclamation Division

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J14

CMLRD I.D. # 0590545800001

Author(s): Myers, A.R., Lindvall, R.A., Hynes, J.L. and Ivey, J.B.

Date: 1978

Title: Coal and clay mine hazard study and estimated unmined coal resources, Jefferson County, Colorado

Publisher: Jefferson County, prepared by Amuedo and Ivey

County: Jefferson

Location: T2,3,4,5, and 6S, R69W; T2,3,4 and 5S, R70W; T2S, R71W

Mine Name: Bluebird No. 1, Leyden, White Ash, New Loveland, Golden Star, Economy, Rowe, Independence

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps:           Extent of mining

Structure maps:

Other:               Coal isopach map, columnar section of Cretaceous rocks, subsidence inventory maps, subsidence hazard maps, mining factors maps.

Comments:       Contains a bibliography on local coal studies and subsidence theory.

Availability:   Colorado Geological Survey  
                  Jefferson County



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. J15

CMLRD I.D. # 059066098201

Author(s): Amuedo and Ivey, Inc.

Date: Sept. 29, 1984

Title: Subsidence Investigation, Littleton Mine, Jefferson County,  
Colorado

Publisher:

County: Jefferson

Location: NW 1/4 Sec. 27, T5S, R69W

Mine Name: Littleton

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps:           General Mine Map

Structure maps:

Other:                Subsidence and horizontal strain predictions

Comments: Proposed southwest mini-storage subdivision

Availability: Colorado Geological Survey, Jefferson County Planning Department

WELD COUNTY

<u>Map Reference No.</u>	<u>Author</u>
W1	Hydro-Search, 1983
W2	Hynes, 1984
W3	Tierra, 1983
W4	Chen, 1980
W5	Church, 1980
W6	Gaz, 1980
W7	Deuel and Associates, 1985
W8	Deuel and Associates, 1985

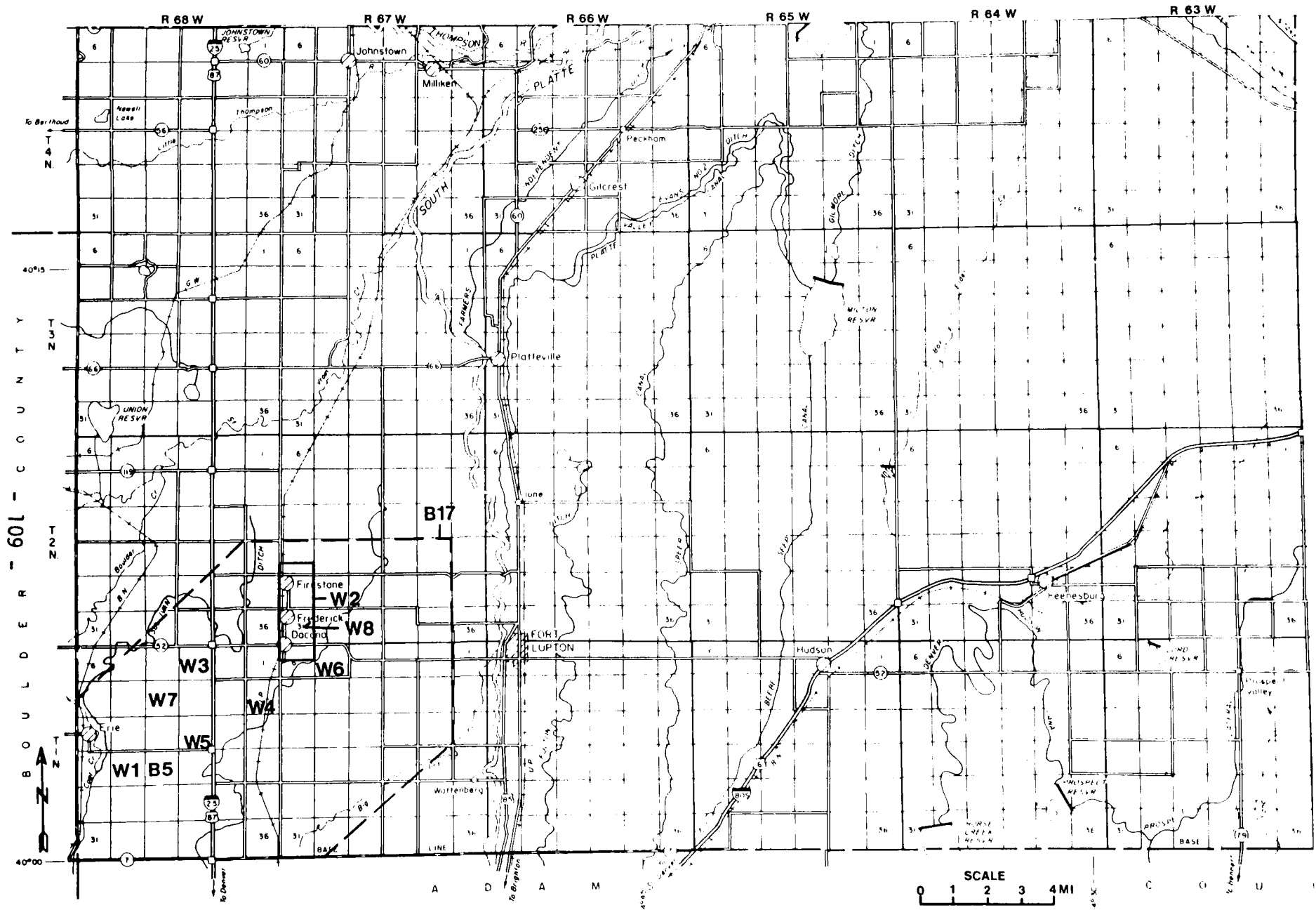


Figure 5. Location map, Weld County subsidence investigations.

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. W1

CMLRD I.D. # 1230432983101

Author(s): Hydro-Search, Inc.

Date: 1983

Title: Site evaluation and operation plan for Landfill Systems, Inc.  
disposal site, Erie, Colorado

Publisher:

County: Weld

Location: Sec. 20, T1N, R68W

Mine Name: Boulder Valley No. 1

Contents:

Geophysical logs:

Lithology logs: Yes

Cross-sections:

Mine maps: See comments

Structure maps:

Other: Subsidence hazard map.

Comments: Mine maps are generalized extent of mining.

Report contains only short section on subsidence.

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. W2

CMLRD I.D. # Various

Author(s): Hynes, Jeffrey L., Colorado Geological Survey

Date: 1984

Title: Tri-Towns Subsidence Investigation, Weld County, Colorado

Publisher: Colorado Division of Mined Land Reclamation, Inactive Mine Program

County: Weld

Location: T1N, T2N, R67W

Mine Name: Baum, Firestone, Evans, Grant, Sterling, Warwick

Contents:

Geophysical logs: natural-gamma, gamma density, resistivity and caliper

Lithology logs: 97 drill holes - 11 core, 86 rotary - and lithology descriptions

Cross-sections: Representative Cross-sections

Mine maps: Mining Features

Structure maps:

Other: Subsidence evaluation and hazard classification

Comments: Extent of mining maps (mine features) overlain on air photos (1 inch to 200 feet scale)

Availability: Colorado Mined Land Reclamation Division, Inactive Mine Program, Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. W3

CMLRD I.D. # 1230433013701

Author(s): Tierra Consultants, Inc.

Date: 1983

Title: Subsidence potential study, Dacono property, Weld County, Colorado

Publisher:

County: Weld

Location: Sec. 3, T1N, R68W

Mine Name: Puritan

Contents:

Geophysical logs: Yes

Lithology logs: Yes

Cross-sections: Yes

Mine maps: Yes

Structure maps:

Other: Hole location map.

Comments:

Availability: Tierra Consultants, Inc.

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. W4

CMLRD I.D. # 1230433043501

Author(s): Chen and Assoc.  
Ralph Mock, Richard Hepworth

Date: 1980

Title: Preliminary Engineering Geology, soils and coal mine subsidence  
evaluation for the Harrington property, Weld County, Colorado

Publisher: Chen and Assoc.

County: Weld

Location: Sec. 12, T1N, R68W

Mine Name: Gradon Mine

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps:

Structure maps:

Other:

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. W5

CMLRD I.D. # 1230433013201

Author(s): Edward A. Church  
Ralph Mock, Richard Hepworth

Date: 1980

Title: Geologic Investigation, Proposed Coufal Residence, 40 acre tract

Publisher:

County: Weld

Location: N-1/2 N-1/2 SW1/4 Sec. 15, T1N, R68W

Mine Name: Eagle Mine

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps:

Structure maps:

Other: Construction recommendations

Comments:

Availability: Colorado Geological Survey



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. W6

CMLRD I.D. # 1230433053601

Author(s): Louis Gaz

Date: 1982

Title: Geologic Hazard - Martin Exploration Co.

Publisher:

County: Weld

Location: Sec. 5, T1N, R67W

Mine Name: Sterling Mine

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps:

Structure maps:

Other: Subsidence Evaluation

Comments:

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. W7

CMLRD I.D. #1230432932801

Author(s): Deuel and Associates

Date: March, 1985

Title: Subsidence Potential of 9 Acres of the Scotts Acres Subdivision

Publisher: Deuel and Associates, Inc.

County: Weld

Location: Section 9, T1N, R68W (incorrectly listed as R69W in report)

Mine Name: Morrison Mine

Contents:

Geophysical logs: 3

Lithology logs: Yes

Cross-sections:

Mine maps:

Structure maps: Yes, 1

Other: Strain Analysis

Comments: Deuel and Associates (now Atec Associates)

Availability: Colorado Geological Survey

ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. W8

CMLRD I.D. # 1230433053601

Author(s): Deuel and Associates, Inc.

Date: March, 1985

Title: Subsidence Potential Study of 320 Acres located in Frederick,  
Colorado for Grant Bros.

Publisher:

County: Weld

Location: Sec. 31, T2N, R67W

Mine Name: Sterling

Contents:

Geophysical logs: Gamma, Sp, Resistance, Caliper

Lithology logs: Yes

Cross-sections: No

Mine maps: No

Structure maps: No

Other: Strain contour map

Comments:

Availability: Colorado Geological Survey

## SELECTED REFERENCES

- American Geological Institute, 1976, Bibliography and Index of Colorado Geology, 1875 to 1975: Colo. Geol. Survey Bull. 37, 488p.
- American Geological Institute, 1983, Bibliography and Index of Colorado Geology, 1975 to 1980: Colo. Geol. Survey Bull. 45, 294p.
- American Geological Institute, 1983, Bibliography and Index of Colorado Geology, 1981 to 1982: Colo. Geol. Survey Information Series No. 19, 111 p.
- Amuedo and Ivey, 1981, Inactive coal mines of the front range area: Inactive Mine Reclamation Program, Division of Mined Land Reclamation, State of Colorado.
- Averitt, Paul, and Lopez, Loredda, 1971, Bibliography and Index of U.S. Geological Survey publications relating to coal, 1882-1970: U.S. Geol. Survey Bull. 1377, 173p.
- Borek, D.L., and Murray, D.K., 1979, Colorado coal reserve depletion data and coal mine summaries: Colo. Geol. Survey OFR 79-1.
- Colorado Inactive Mine Program, 1982, Inactive mines of Colorado: Division of Mined Land Reclamation, State of Colorado, 1 sheet.
- Colorado School of Mines Research Institute, 1980, Annotated bibliography of source materials on abandoned coal-mined lands in Colorado: U.S. Dept. Int., Office of Surface Mining, 127 p.
- Colton, Roger B. and Lowrie, Raymond L., 1973, Map showing mined areas of the Boulder-Weld Coal Field, Colorado: U.S. Geol. Survey Misc. Field Studies Map MF-513.
- Fender, H.B., Jones, D.C., and Murray, D.K., 1978, Bibliography and index of publications related to coal in Colorado, 1972-1977: Colo. Geol. Survey Bull. 41, 54p.
- Holt, R.D., 1972, Bibliography, Coal resources in Colorado: Colo. Geol. Survey Bull. 34-A, 31p.
- Kirkham, R.M., 1978, Coal mines and coal analyses of the Denver and Cheyenne Basins, Colorado: Colo. Geol. Survey Open File Report 78-9.
- Lowrie, R.L., 1976, Analysis of the coal industry in Boulder-Weld Coal Field, Colorado: U.S. Bureau Mines Rep. Inv. 6726, 79p.
- Moore, R., Colaizzi, G., Laird, R., 1984, Feasibility of using fly ash for backfilling abandoned coal mines in Colorado Springs, Colorado. Goodson associates for the Office of Surface Mining, Denver, Colorado.

- Pendleton, James A., 1978, Geology and the conduct of local government: An urban geologist's viewpoint: Ph.D. Thesis, Univ. of Colorado, Boulder, 209p., 16 plates.
- Rocky Mountain Association of Geologists, 1981, Bibliography of theses and dissertations on Colorado, 1968-1980: The Mountain Geologist, Vol. 18, No. 4, p. 96-113.
- Rogers, W.P. and others, 1974, Guidelines and criteria for identification and land use controls of geologic hazard and mineral resource areas: Colo. Geol. Survey Spec. Pub. No. 8, 14p.
- Turney, J.E., and Murray-Williams, L., 1984, Colorado front range inactive coal mine data and subsidence information: Colo. Geol. Survey.
- Turney, J.E., 1984, Subsidence Above Inactive Coal Mines, Information for the Homeowner, Colorado Geological Survey, Special Publication 26.
- Walker, F.K., 1976, Bibliography and index of U.S. Geological Survey publications relating to coal, 1971-1975: U.S. Geol. Survey Circ. 742, 32p.

## Sources of Information

Colorado Division of Mines  
1313 Sherman Street, Room 423  
Denver, CO 80203  
(303) 866-3567

Coal mine maps  
Coal mine production records

Colorado Geological Survey  
Department of Natural Resources  
1313 Sherman Street, Room 715  
Denver, CO 80203  
(303) 866-2611

CGS publications  
Consultant reports  
General information

Colorado School of Mines  
Golden, CO 80401  
(303) 273-3690

Publications  
Technical library

Denver Public Library  
Western History Department  
1357 Broadway  
Denver, CO 80203  
(303) 571-2009

Rocky Mountain Fuel Co. Maps

Jefferson County Planning Department  
1700 Arapahoe Street  
Golden, CO 80401  
(303) 277-8699

Consultant reports  
Virginia Mine subsidence investigation

Mined Land Reclamation Division  
State of Colorado Department of Natural Resources  
1313 Sherman Street, Room 423  
Denver, CO 80203  
(303) 866-3567

Colorado Inactive Mine Program  
Subsidence hazard publications  
Extent of mining maps  
OSM emergency action reports

Louisville Planning Department  
749 Main Street  
Louisville, CO 80027  
(303) 666-6565

Consultant reports

Office of Surface Mining  
Western Technical Center  
1020 15th Street  
Denver, CO 80202

Emergency action closeout reports

U.S. Bureau of Mines  
Intermountain Field Operations Center  
Building 20, Denver Federal Center  
Denver, CO 80225  
(303) 234-4119

Coal mine maps and data for the State of Colorado  
Subsidence Information Center bibliography file

U.S. Geological Survey Library  
1526 Cole Boulevard  
Golden, CO 80401  
(303) 234-4133

Publications

APPENDIX A

DATA SHEET



ANNOTATED BIBLIOGRAPHY OF SUBSIDENCE STUDIES  
OVER ABANDONED COAL MINES IN COLORADO

Map Reference No. \_\_\_\_\_

CMLRD I.D. # \_\_\_\_\_

Author(s):

Date:

Title:

Publisher:

County:

Location:

Mine Name:

Contents:

Geophysical logs:

Lithology logs:

Cross-sections:

Mine maps:

Structure maps:

Other:

Comments:

Availability:

4457