

# OHIO MINE SUBSIDENCE INSURANCE UNDERWRITING ASSOCIATION

## ANNUAL REPORT

*January 2000 Through December 2000*

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This report is submitted by the board members of the Ohio Mine Subsidence Insurance Underwriting Association, Samuel W. Speck, Director of Natural Resources, Chairman; Joseph T. Deters, Treasurer of State; Lee Covington, Superintendent of Insurance; and M. Brooks Rorapaugh, insurance industry representative from an Ohio domiciled carrier, Grange Insurance Company.

### ABANDONED UNDERGROUND MINES:

#### How they impact Ohioans

In the United States, approximately 100,000 underground mines are known to exist, of which 90% are inactive or abandoned. Approximately one-fourth of the total surface area overlying these mines has been affected by subsidence. An estimated 99% of the subsided land overlies underground voids created by coal mining, while the remaining 1% is attributed to the underground extraction of metallic and nonmetallic minerals.

For more than a century and a half, underground mining, mainly for coal, has been an active industry in Ohio. During this period, approximately 4,100 underground coal and other mineral mines have been abandoned (see Exhibit 1). These mines range in size from small "doghole" mines utilized by

individuals for home heating to huge operations extending for several square miles.

Several generations of mining have left us with both a tradition of mining and a legacy of abandoned mines. Now, with an expanding population and its demand on space, the problems involved with abandoned underground mines are being fully realized. One such problem is that of mine subsidence loss and/or damage caused by the collapse or the lateral or vertical movement of structures resulting from the caving in of underground mines.

Geologic and mining factors that directly affect the extent of subsidence include the following: the mining method; the vertical and lateral dimension of the mine cavity; the depth of the mine void below ground surface; overburden characteristics; size, distribution and nature of support pillars; surface topography; location of ground water; and the method and quantity of backfilling used, if any. Prediction of when and where mine subsidence occurs is in its infancy state of development and research.

Two type of subsidence occur in Ohio. The first type, referred to as Aroom and pillar subsidence occurs when the mine roof (substrata rock) collapses into a void created by the removal of coal. Shaft collapse, the second type of subsidence, takes place when an air or coal haulage shaft which has been inadequately sealed, collapses. Shaft collapse can occur suddenly and is considered the most hazardous type of subsidence.

### MINE SUBSIDENCE INSURANCE

#### Background

The Mine Subsidence Insurance Program in Ohio has undergone various changes since its inception. This section of the annual report will indicate the evolution of the program since its inception in 1987.

The Ohio Legislature enacted Ohio Revised Code sections 3929.50 to 3929.53 and 3929.55 to 3929.61 in January of 1985. This Act authorized the establishment of the Mine Subsidence Insurance Governing Board, the Mine Subsidence Insurance Fund (MSIF), and the Ohio Mine Subsidence Insurance Underwriting Association (OMSIUA).

The Governing Board consisted of the Director of Natural Resources or designee as chairperson, the Treasurer of State or designee, and one representative from an Ohio domiciled insurance company. The MSIF is administered by the Governing Board and the Treasurer of State is the custodian of the Fund. The MSIF was initially funded with state and federal government appropriations. The premium for mine subsidence insurance coverage was initially established at a level intended to cover all foreseeable claims, normal operating expenses, a reserve for unexpected contingencies, and to provide for repayment of all government funds.

The Governing Board has entered into a contract with the Ohio FAIR Plan Underwriting Association (OFPUA) for administrative duties since the inception of the program. The contract provides for OFPUA to perform administrative and claim services for the OMSIUA. OFPUA personnel is trained to handle mine subsidence insurance claims and necessary administrative duties.

Insurance companies who write basic property or multi-peril policies on a direct basis for 1-4 family dwellings in the 37 eligible counties were required to become members of the OMSIUA and offer the mine subsidence coverage to all eligible applicants. Companies could be exempted from active participation if approved by the Department of Insurance.

In April 1992, the Ohio Legislature recognized that the program was not sufficiently populated to provide necessary funds for claims and operating expenses, for appropriate reserves, and for repayment of State and Federal monies. The Ohio Revised Code was amended to provide:

1. The addition of the Superintendent of Insurance or designee to the Mine Subsidence Governing Board.

2. The designation of 26 Ohio counties as counties in which mine subsidence coverage is automatically added to dwelling fire, homeowners, or commercial fire policies for which dwelling/non-commercial/personal lines rates were applicable. The premium for the coverage, since 7/1/99, is \$1.00 for these 26 "mandatory" counties.

3. The designation of additional Ohio counties as "optional" counties. Owners of eligible properties in these counties must be offered the mine subsidence coverage and will decide whether to buy the coverage or not. The premium for these insureds, since 7/1/99, is \$5.00.

This legislative change was intended to provide sufficient revenue to appropriately populate OMSIUA and to allow for claims and operating expense payments, appropriate reserves, and repayment of government funds.

#### Program Funding

The Controlling Board approved an appropriation of \$200,000 as an initial reserve for the Fund on January 17, 1986. This initial reserve was to be used to pay subsidence claims resulting from active coal mining, from salt or industrial mineral extraction, and from post-August 3, 1977 abandoned coal mines. Repayment of these funds was completed in 1997.

#### What is Mine Subsidence Insurance?

Mine subsidence insurance provides coverage for loss caused by the collapse or lateral or vertical movement of structures resulting from the caving in of underground mines, including underground coal mines, clay mines, limestone mines and salt mines. It does not include loss caused by earthquake, landslide, volcanic eruption, or collapse of strip mines, any surface mines, or storm and sewer drains, or rapid transit tunnels.

For structures to be eligible for mine subsidence insurance, the following eligibility requirements must be met:

1. The structure must be an occupied 1-4 family dwelling and at least 50% of the total living area must be occupied. Seasonal properties are considered eligible for coverage

as are properties under construction (if the property will become a 1-4 family occupied dwelling structure when completed).

2. The structure may have incidental occupancy if the occupancy does not cause the structure to be rated under commercial rating plans and if the structure qualifies for a homeowners, a farm owners, or a dwelling fire policy.

3. The structure must be located in one of the designated "mandatory" or "optional" counties.

4. The structure must be covered by a valid homeowners, farm owners, or dwelling fire policy.

Additionally, coverage will be denied if a material misrepresentation of facts or circumstances concerning mine subsidence is made and/or if there is any increase in hazard within the control or knowledge of the insured.

#### What counties are insurable under the program?

There are 37 Ohio counties which are eligible for mine subsidence coverage under the mine subsidence program. Twenty-six of these counties are mandatorily provided the coverage with their homeowners, farm owners, or dwelling fire insurance policies by attachment of the Mine Subsidence Coverage form. Those 26 counties are: Athens, Belmont, Carroll, Columbiana, Coshocton, Gallia, Guernsey, Harrison, Hocking, Holmes, Jackson, Jefferson, Lawrence, Mahoning, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Scioto, Stark, Trumbull, Tuscarawas, Vinton, and Washington counties.

The optional counties eligible for coverage are Delaware, Erie, Geauga, Lake, Licking, Medina, Ottawa, Portage, Preble, Summit, and Wayne counties. Coverage in these counties must be offered by insurance companies and property owners may purchase the mine subsidence coverage if they choose.

Whether in a "mandatory" or an "optional" county, the mine subsidence insurance coverage cannot be purchased separately. The insurance company providing the coverage will process the coverage attachment, collect the premium, and process any claims notices for OSMIUA. All

responsibility for claims rests with OSMIUA and not with any individual member company.

The coverage provided is equal to that of the dwelling only or \$50,000.00, whichever is less. A minimum deductible of \$250.00 and a maximum of \$500.00 will apply per occurrence. Coverage does not extend to industrial/commercial buildings, various outbuildings or barns, land, trees, crops, plants, or contents/personal property.

#### Outreach Program

The Ohio FAIR Plan, with the approval of the Mine Subsidence Insurance Governing Board, contracted with a consulting firm for professional services for the development and implementation of a formal educational outreach program. The outreach program addresses the hazards of constructing residential housing above abandoned underground mines in the counties where mine subsidence coverage is available. The goal of the program is to educate individuals, groups, and government agencies concerning the potential building problems associated with abandoned underground mines.

In 1999 the Mine Subsidence Educational Outreach program consisted of distributing brochures through mass mailings to specific groups and organizations, magazine articles, and 8 public meetings. The consultant efforts coordinated the Ohio FAIR Plan, Geological Survey/Coal Geology Group, REALM/Resource Analysis Section and DMR/AML Section in the development of background information for the outreach program. The Outreach Program began in April 1997.

#### Claim Handling

Mine Subsidence is different from any other catastrophe that damages structures. A fire to a building is usually extinguished in minutes and repairs can be started shortly after settlement with the insurance company. A mine subsidence event causes ground movement and this process can last for several years. As a result, structures damaged by subsidence cannot be repaired until this movement ceases.

### Reporting of a Claim

Property owners who have mine subsidence coverage and suspect that their structure has been damaged by mine subsidence, are to notify their insurance agent or company as soon as possible. The agent or company will then send written notification to the OMSIUA informing them of the date of loss, the date that the mine subsidence coverage was effective for the property owner, and the location suffering the loss. OMSIUA will assign an adjuster to perform the initial investigation.

### Investigation of Cause

The adjuster's initial inspection consists of an interview of the property owner and examination of damage. Typical suspected subsidence damage might be:

- Cracks in basement walls, floor, and foundation.
- Separation of porches, patios, and chimneys from the main structure.
- Doors and windows that are "jammed" shut.
- Cracks in the exterior walls.
- Tilting of the structure.

OMSIUA's adjusters work in close cooperation with the Ohio Department of Natural Resources to investigate a suspected mine subsidence claim. State mine maps, maintained by the Division of Geological Survey, are carefully reviewed to determine if the property in question is undermined. The Division of Mines and Reclamation - Abandoned Mine Lands Program - is consulted to secure any additional mining information. Unfortunately, in many cases there are no mining company records that indicate prior mining activity.

If the structure is in an area of Ohio known for its coal resources and if subsidence is suspected as a possible cause of loss by the adjuster, OMSIUA will utilize the services of trained geologists and engineers to further aid the investigation. These experts are familiar with the "finger print" of subsidence damage and have extensive knowledge of Ohio's geology.

### Stabilization of the Abandoned Mine

If the investigators believe there is an emergency situation with respect to the structure being damaged by ongoing mine subsidence, the Ohio Department of Natural Resources, Division of Mines and Reclamation (DOMR), is informed so that their office can take the appropriate action. The DOMR administers the Abandoned Mine Lands (AML) Program which includes the stabilization of mine subsidence areas. The AML Program also oversees the Emergency Program which allows for the immediate response to a subsidence event that poses a direct threat to the safety of the public. The subsidence can be halted in some cases through the "grouting" of underground mine voids. Grouting is the injection of concrete into specific areas of the abandoned underground mine to halt the subsidence.

### Temporary Repairs to the Structure

OMSIUA will make temporary repairs to damaged structures if warranted. In some cases it is necessary for extensive shoring procedures to be performed so that the building will not collapse.

Extensive shoring efforts to protect the structure from collapse can cost several thousands of dollars.

### Surveying

In certain cases of suspected mine subsidence, OMSIUA monitors the ground movement by surveying the structure. This technique involves establishing a survey line with monitoring points on the structure and the surrounding neighborhood. Initial benchmark measurements are taken with additional measurements occurring at intervals ranging from two to six months.

This investigation technique serves two purposes. First, if there is consistent and significant downward movement of the structure, it is probable that a subsidence event is ongoing. Secondly, when that downward movement has stopped for an acceptable period of time, permanent repairs can be made to the structure.

### **Claims Payments**

OMSIUA makes partial payments of claims to enable the property owner to have adequate funds for temporary repairs.

All claims are settled on an actual cash value basis (the replacement cost of damage less depreciation or betterment). Coverage is limited to the amount of insurance being provided on the primary structure, or \$50,000.00, whichever is less.

### **Ohio Mine Subsidence Claims**

In 1999, 112 claims were reported to OMSIUA and in 2000 113 claims were reported. In 1999, 109 claims were closed with payments of \$186,943.86 in paid losses and adjustment expenses and reserves totaled \$286,700 at year end. In 2000, 141 claims were closed with payments of \$284,573.74 in paid losses and adjustment expenses and reserves totaled \$94,500 at year end. Exhibit 2 details the 1999 and 2000 claims activity by county.

**FINANCIAL STATEMENTS AND STATISTICAL INFORMATION**

**OHIO MINE SUBSIDENCE INSURANCE FUND STATEMENT OF RECEIPTS,  
DISBURSEMENTS, AND FUND BALANCE ACTUAL FOR 1999 AND 2000**

<i>Fund Balance (12/31/98)</i>	\$8,412,834.16
<i>1999 Income (Premiums et al)</i>	2,107,601.57
<i>1999 Disbursements</i>	<u>462,452.36</u>
<i>Fund Balance (12/31/99)</i>	\$10,057,983.37
<i>2000 Income (Premiums et al)</i>	1,688,280.77
<i>2000 Disbursements</i>	<u>636,329.61</u>
<i>Fund Balance (12/31/00)</i>	\$11,109,934.53

Exhibits 3, 3A, and 3B demonstrate the MSI Policies Written per Housing Unit in all MSI counties, in "mandatory" counties, and in "optional" counties for 2000. The reader's attention is directed to Exhibit 3A which shows the mandatory county participation with 90.42% of all eligible properties insured for mine subsidence losses. This clearly demonstrates the effectiveness of the law regarding the Ohio Mine Subsidence Insurance program.

COUNTY	NUMBER OF ABANDONED AND ACTIVE MINES	
	ABANDONED MINES	ACTIVE MINES 2000
ATHENS	272	1
BELMONT	283	1
CARROLL	101	0
COLOMBIANA	196	1
COSHOCTON	192	0
DELAWARE	1	0
ERIE	1	0
GALLIA	86	0
GEAUGA	1	0
GUERNSEY	141	0
HARRISON	73	1
HOCKING	193	0
HOLMES	34	0
JACKSON	212	0
JEFFERSON	281	3
LAKE	0	0
LAWRENCE	97	0
LICKING	1	0
MAHONING	82	1
MEDINA	39	0
MEIGS	137	2
MONROE	1	0
MORGAN	28	0
MUSKINGUM	291	0
NOBLE	48	0
OTTAWA	6	0
PERRY	356	0
PORTAGE	15	0
PREBLE	1	0
SCIOTO	32	0
STARK	299	0
SUMMIT	37	0
TRUMBULL	24	0
TUSCARAWAS	419	0
VINTON	108	1*
WASHINGTON	17	0
WAYNE	36	0
TOTAL	4140	8

- Originates in Meigs County and extends to Vinton County

Source of Mine information: Ohio Department of Natural Resources Division of Geological Survey

**OMSIUA CLAIMS - INCEPTION THRU 12/31/00**

<u>COUNTY</u>	<u>TOTAL CLAIMS</u>	<u>CLOSED CLAIMS</u>	<u>OPEN CLAIMS</u>	<u>RESERVES</u>	<u>CLAIM PAYMENTS</u>	<u>LOSS ADJ. EXPENSE</u>
Athens	19	18	1	0	0.00	8,643.36
Belmont	250	234	16	46,000	294,788.44	248,017.39
Carroll	5	4	1	0	0.00	2,365.24
Columbiana	28	25	3	10,000	3,419.86	24,127.78
Coshocton	7	6	1	0	1,800.00	13,779.89
Delaware	0	0	0	0	0.00	0.00
Erie	0	0	0	0	0.00	0.00
Galia	6	6	0	0	0.00	3,321.02
Geauga	0	0	0	0	0.00	0.00
Guernsey	22	18	4	15,000	5,794.42	20,690.28
Harrison	44	39	5	0	49,192.92	109,293.55
Hocking	1	1	0	0	0.00	304.70
Holmes	0	0	0	0	0.00	0.00
Jackson	96	94	2	15,000	395,429.90	135,354.66
Jefferson	110	109	1	8,500	24,598.70	117,620.86
Lake	1	1	0	0	0.00	191.40
Lawrence	15	12	3	0	0.00	10,229.46
Licking	2	2	0	0	0.00	104.40
Mahoning	32	32	0	0	7,187.44	35,389.10
Medina	1	1	0	0	0.00	269.54
Meigs	10	10	0	0	0.00	5,647.83
Monroe	17	13	4	0	37,984.00	26,090.07
Morgan	0	0	0	0	0.00	0.00
Muskingum	28	25	3	0	5,646.70	33,324.39
Noble	1	1	0	0	0.00	400.30
Ottawa	0	0	0	0	0.00	0.00
Perry	18	18	0	0	5,115.05	25,377.06
Portage	2	2	0	0	0.00	1,246.71
Preble	0	0	0	0	0.00	0.00
Scioto	6	6	0	0	0.00	1,916.38
Stark	136	134	2	0	174,842.86	148,613.31
Summit	17	15	2	0	30,000.00	21,018.66
Trumbull	34	30	4	0	0.00	30,988.86
Tuscarawas	34	31	3	0	14,228.00	27,262.09
Vinton	6	6	0	0	0.00	6,026.20
Washington	13	13	0	0	0.00	13,156.22
Wayne	8	7	1	0	47,907.24	8,955.90
<b>TOTALS</b>	<b>969</b>	<b>913</b>	<b>56</b>	<b>\$ 94,500</b>	<b>\$ 1,097,935.53</b>	<b>\$ 1,079,726.61</b>

MSI Policies Written per Housing Units  
in MSI Counties 12/31/00

County	# Housing Units	# Policies/Premium 01/01/00 -12/31/00		TOTAL
				Percentage of Policies Taken to # Homes
Athens	18,072	17,217	20,239.86	95.27%
Belmont	26,520	23,383	25,713.01	88.17%
Carroll	10,738	10,053	11,507.53	93.62%
Columbiana	39,272	37,567	43,106.57	95.66%
Coshocton	13,221	11,829	12,682.40	89.47%
Delaware	21,626	1,336	4,857.52	6.18%
Erie	28,139	311	1,092.02	1.11%
Gallia	11,090	9,767	10,930.29	88.07%
Geauga	26,104	692	2,557.63	2.65%
Guernsey	14,648	13,426	14,952.52	91.66%
Harrison	6,488	6,019	6,361.05	92.77%
Hocking	9,525	8,767	10,844.89	92.04%
Holmes	9,405	6,652	7,056.30	70.73%
Jackson	10,878	10,330	11,659.56	94.96%
Jefferson	29,389	24,629	26,338.84	83.80%
Lake	69,042	1,532	5,518.76	2.22%
Lawrence	22,270	19,800	21,624.61	88.91%
Licking	44,062	937	3,355.11	2.13%
Mahoning	89,872	77,265	81,853.93	85.97%
Medina	38,129	2,047	7,463.43	5.37%
Meigs	8,668	7,138	7,763.62	82.35%
Monroe	5,816	5,460	6,277.30	93.88%
Morgan	6,076	4,927	5,300.86	81.09%
Muskingum	28,927	27,410	29,628.05	94.76%
Noble	4,517	4,060	4,517.97	89.88%
Ottawa	21,143	453	1,551.76	2.14%
Perry	10,967	9,846	12,189.31	89.78%
Portage	43,102	1,513	5,593.19	3.51%
Preble	14,029	290	1,014.39	2.07%
Scioto	27,605	23,526	25,958.51	85.22%
Stark	126,215	119,723	132,796.47	94.86%
Summit	173,270	8,583	30,772.21	4.95%
Trumbull	78,040	68,686	75,597.80	88.01%
Tuscarawas	30,993	29,767	33,791.32	96.04%
Vinton	4,168	3,886	4,405.56	93.23%
Washington	22,747	21,146	23,134.51	92.96%
Wayne	33,518	6,498	22,363.90	19.39%
<b>TOTALS</b>	<b>1,178,291</b>	<b>626,471</b>	<b>752,372.56</b>	<b>53.17%</b>

MSI Policies Written per Housing Units  
in MSI Counties 12/31/00

MANDATORY

County	# Housing Units	# Policies/Premium 01/01/00 -12/31/00		Percentage of Policies Taken to # Homes
Athens	18,072	17,217	20,239.86	95.27%
Belmont	26,520	23,383	25,713.01	88.17%
Carroll	10,738	10,053	11,507.53	93.62%
Columbiana	39,272	37,567	43,106.57	95.66%
Coshocton	13,221	11,829	12,682.40	89.47%
Gallia	11,090	9,767	10,930.29	88.07%
Guernsey	14,648	13,426	14,952.52	91.66%
Harrison	6,488	6,019	6,361.05	92.77%
Hocking	9,525	8,767	10,844.89	92.04%
Holmes	9,405	6,652	7,056.30	70.73%
Jackson	10,878	10,330	11,659.56	94.96%
Jefferson	29,389	24,629	26,338.84	83.80%
Lawrence	22,270	19,800	21,624.61	88.91%
Mahoning	89,872	77,265	81,853.93	85.97%
Meigs	8,668	7,138	7,763.62	82.35%
Monroe	5,816	5,460	6,277.30	93.88%
Morgan	6,076	4,927	5,300.86	81.09%
Muskingum	28,927	27,410	29,628.05	94.76%
Noble	4,517	4,060	4,517.97	89.88%
Perry	10,967	9,846	12,189.31	89.78%
Scioto	27,605	23,526	25,958.51	85.22%
Stark	126,215	119,723	132,796.47	94.86%
Trumbull	78,040	68,686	75,597.80	88.01%
Tuscarawas	30,993	29,767	33,791.32	96.04%
Vinton	4,168	3,886	4,405.56	93.23%
Washington	22,747	21,146	23,134.51	92.96%
<b>TOTALS</b>	<b>666,127</b>	<b>602,279</b>	<b>666,232.64</b>	<b>90.42%</b>

MSI Policies Written per Housing Units  
in MSI Counties 12/31/00

OPTIONAL

County	# Housing Units	# Policies/Premium 01/01/00 -12/31/00		Percentage of Policies Taken to # Homes
Delaware	21,626	1,336	4,857.52	6.18%
Erie	28,139	311	1,092.02	1.11%
Geauga	26,104	692	2,557.63	2.65%
Lake	69,042	1,532	5,518.76	2.22%
Licking	44,062	937	3,355.11	2.13%
Medina	38,129	2,047	7,463.43	5.37%
Ottawa	21,143	453	1,551.76	2.14%
Portage	43,102	1,513	5,593.19	3.51%
Preble	14,029	290	1,014.39	2.07%
Summit	173,270	8,583	30,772.21	4.95%
Wayne	33,518	6,498	22,363.90	19.39%
<b>TOTALS</b>	<b>512,164</b>	<b>24,192</b>	<b>86,139.92</b>	<b>4.72%</b>