



Department of Energy

Washington, DC 20585

APR 11 1994

Mr. Joseph J. Holonich, Director
Repository Licensing & Quality
Assurance Project Directorate
Division of High-Level
Waste Management
Office of Nuclear Material
Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Reference: Ltr, Holonich to Shelor, dtd 3/7/94

Dear Mr. Holonich:

Your letter of March 7, 1994, (reference), requested four items of information. Item 1 from the referenced letter is supplied in Enclosure 1. Only a hard copy of the data requested in Enclosure 1 is available from an original platform of 9 mm tape. The Yucca Mountain Site Characterization Office does not now possess the hardware to transpose a 9 mm tape onto a hard disc or floppy disc in any format.

Enclosure 2 provides the seismic hypocenter map in Item 2 of the referenced letter. Enclosure 3 is the publication list requested in Item 3 of the referenced letter. Enclosure 4 consists of extra copies of the Geographic Information System Catalog requested in Item 4 of the referenced letter.

Due to the size of Enclosure 1, copies are provided for the U.S. Nuclear Regulatory Commission, the State of Nevada, and Nye County, Nevada. If any affected units of local government desires a copy of Enclosure 1, please contact Thomas W. Bjerstedt at (702) 794-7590 of the Yucca Mountain Site Characterization Office.

If you have any questions, please contact Chris Einberg of my staff at (202) 586-8869.

Sincerely,

Dwight E. Shelor
Associate Director for
Systems and Compliance
Office of Civilian Radioactive
Waste Management

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Enclosures: (NOT RECORD MATERIAL)

1. Geodetic Data
2. Seismic Hypocenter Map
3. Seismicity Publication List
4. GIS Catalog

cc w/encls 1,2,3,4: *on the shelf*

R. Loux, State of Nevada
W. Offutt, Nye County, NV
T. J. Hickey, Nevada Legislative Committee

cc w/encls 2,3,4:

R. Nelson, YMPO
D. Bechtel, Las Vegas, NV
Eureka County, NV
Lander County, Battle Mountain, NV
P. Niedzielski-Eichner, Nye County, NV
L. Bradshaw, Nye County, NV
C. Schank, Churchill County, NV
F. Mariani, White Pine County, NV
V. Poe, Mineral County, NV
J. Pitts, Lincoln County, NV
J. Hayes, Esmeralda County, NV
B. Mettam, Inyo County, CA

INFORMAL MEMORANDUM

March 25, 1994

TO: Tim Sullivan

THROUGH: John Whitney *www*
Section Chief, Tectonics

FROM: Tracy Mendez-Vigo
Lead GSP QA Implementation Specialist

SUBJECT: NRC Request dated 3-7-94

Following is a list of University of Nevada, Reno, and Yucca Mountain Project publications on seismicity and focal mechanisms from the Southern Great Basin Seismic Network for 1990 - current. It is my understanding that UNR is working on several reports, but have not published to date.

Gomberg, J.S., 1991, Seismicity and detection/location threshold in the Southern Great Basin Seismic Network: Journal of Geophysical research, v.96, no. B10, p. 16,401-16,414

Gomberg, J.S., 1991, Seismicity and shear strain in the southern Great Basin of Nevada and California: Journal of Geophysical Research, v.96, no. B10, p. 16383 - 16,399

Harmsen, S.C., 1993, Preliminary seismicity and focal mechanisms for the Southern Great Basin of Nevada and California: January 1992 through September 1992, USGS Open File Report in print

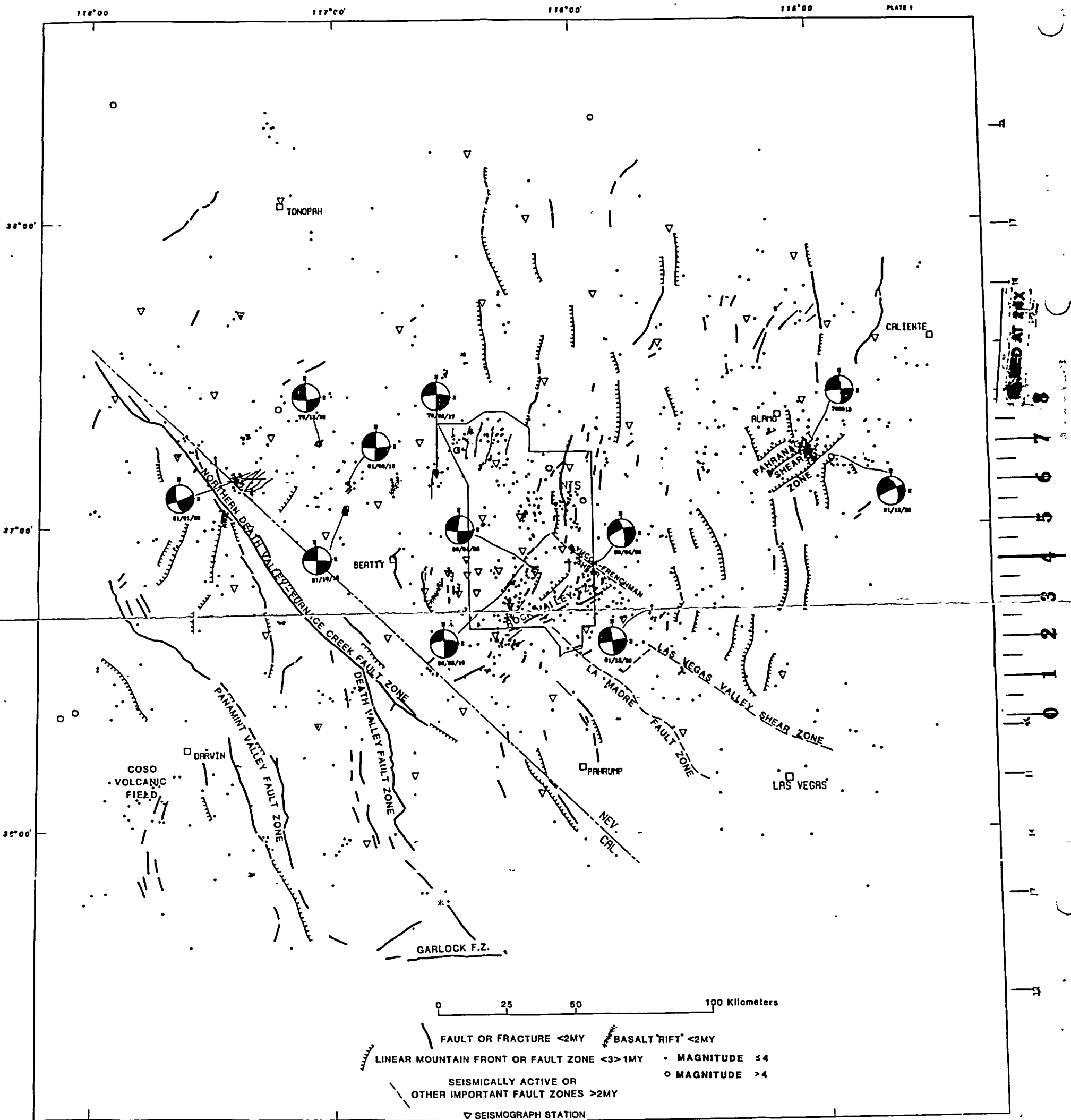
Harmsen, S.C., 1993, Seismicity and focal mechanisms for the Southern Great Basin of Nevada and California in 1991: U.S. Geological Survey Open File Report 92-340, 100 p.

Harmsen, S.C., 1992, Seismicity and focal mechanisms for the Southern Great Basin of Nevada and California in 1990: U.S. Geological Survey Open File Report 91-367, 103 p.

Anderson, J.G., 1992, Preliminary Report: The Little Skull Mountain Earthquake of June 29, 1992: Dynamic analysis and design considerations for high-level nuclear waste repositories, p. 162 - 175

ENCLOSURE 3

1-354791



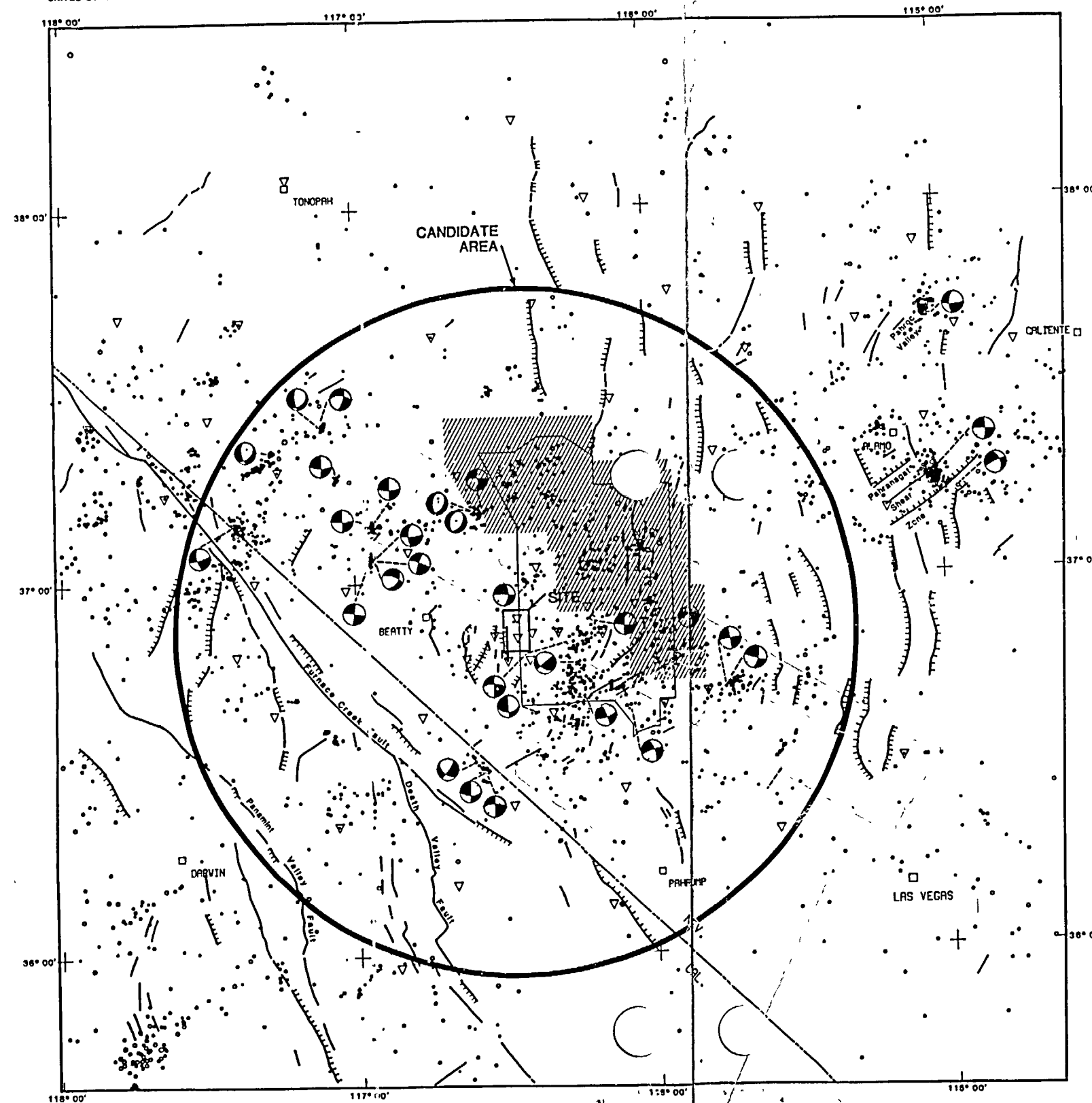
Seismicity of the Southern Great Basin August 1, 1978 through December 31 1981
by
A. M. Rogers, S. C. Herriman, W. J. Carr and W. J. Spence
1983

This map is preliminary and has not been reviewed for conformity
with U. S. Geological Survey editorial standards.

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Explanation

Preliminary map of epicenters, focal mechanisms, and faults in candidate area. The faults represent late Pliocene and Quaternary movement (approximately 3 million years). The base map is from Carr (1984). Well-known Quaternary faults are shown within a 100km radius of Yucca Mountain (map is incomplete in some areas).

Hatched region is an arbitrary zone chosen as a preliminary identification of potentially induced seismicity from nuclear tests.

Fault known or suspected to have had surface movement 2-3 million years B.P.

Unusually linear mountain front where persistent fault activity has maintained a prominent scarp in bedrock or a steep linear mountain segment where young deposits are not obviously offset. The direction of hachures indicates down-thrown block.

Line of volcanic vents of Quaternary age.

Wood-Anderson equivalent magnitude

• $M_L < 1$ • $2 \leq M_L < 3$

• $1 \leq M_L < 2$ • $3 \leq M_L$

▽ Seismograph station

○ Earthquake focal mechanism

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Scale 1:500,000
0 10 20 30 40 Miles
0 10 20 30 40 50 Kilometers

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. Any use of trade names is for descriptive purposes only and does not imply endorsement by U.S.G.S.

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