

GL04926-6

*file / Bully Creek
Area*

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MAR 0 8 1976

PORTLAND

INTER-OFFICE MEMORANDUM

SUBJECT: Seismic records, Chalk Butte and Bully Creek areas DATE March 5, 1976

TO: W. O. Lockman cc: W. M. Dolan
H. J. Olson
J. Roth
FROM: A. L. Lange H. D. Pilkington ✓

Chalk Butte:

Throughout historic time, no earthquakes have been recorded from the Chalk Butte area. The nearest recorded earthquake was of a magnitude 1.8 near Vale, 16 kilometers to the north, on 8 November 1975. A high-gain microseismic network with a detection threshold below magnitude 0 was operated for a period of 10 days in February, 1975, by Microgeophysics Corporation. The nine stations, deployed between Vale and Chalk Butte, detected no microearthquakes. Their conclusion is: "Seismicity as recorded in this survey poses no threat to the structures or works of man".

Bully Creek:

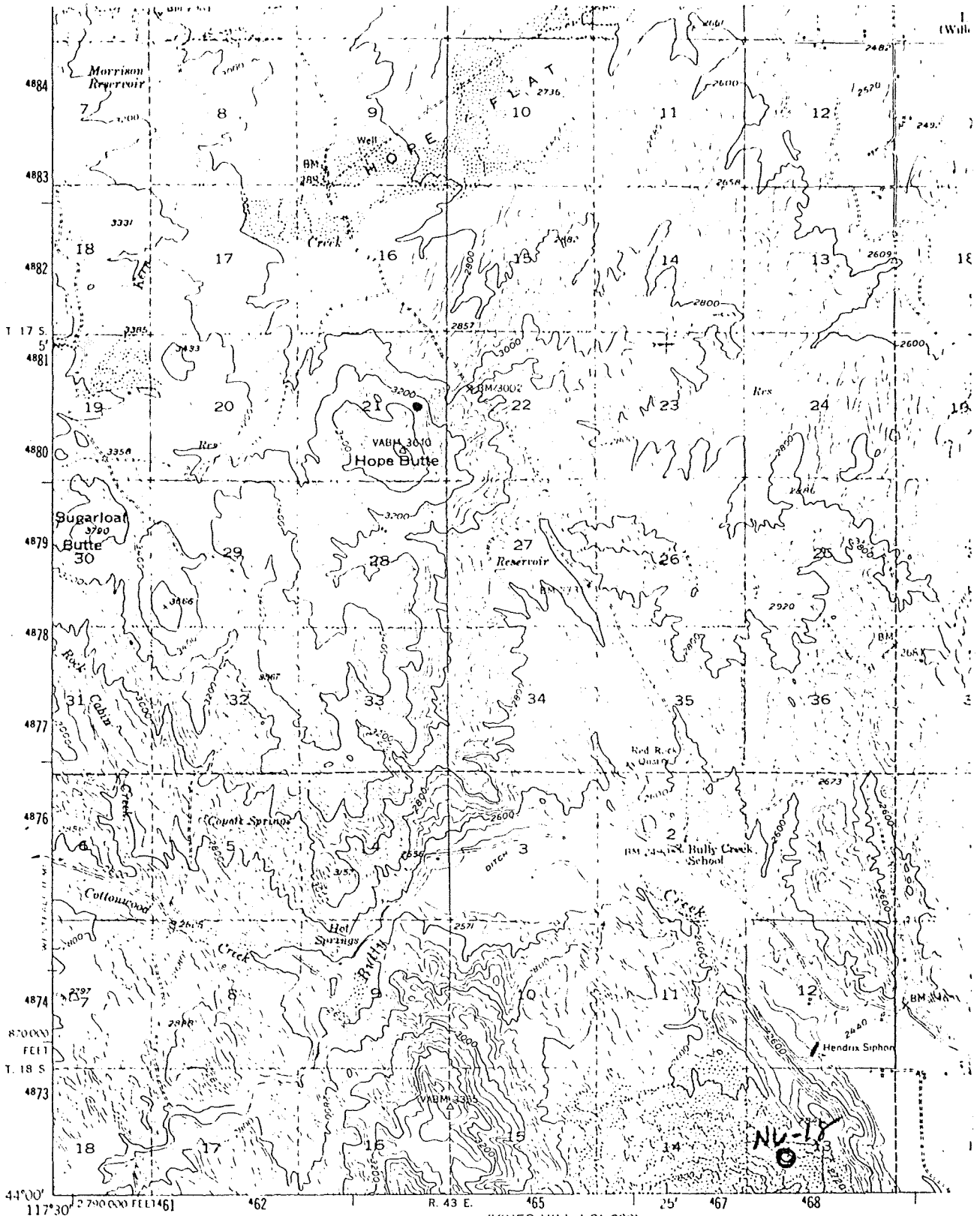
No earthquakes have been reported from the Vale-Bully Creek area prior to 1975. On 8 November, 1975, however, a magnitude 1.8 earthquake was reported by the USGS station at Baker, Oregon, to have occurred near Vale, and was felt at Vale. Meanwhile, James Applegate of Boise State University reports that he recorded 12 events originating near Vale in December, 1975.

Microgeophysics Corporation operated a seismic station for two days in February, 1975, near Jamieson, and recorded no microearthquakes. A nine-station microearthquake network was deployed for five days between 3-8 January, 1976, by Microgeophysics, between Vale and Hope Butte. It was anticipated that aftershocks of the December activity would be seen; however, no local seismicity was recorded. Without accurate locations for the seismicity recorded from Boise and Baker, the intermittently active structures cannot be identified, and any relationship to geothermal manifestations in the Bully Creek area must be regarded as unlikely.

Arthur L. Lange
Arthur L. Lange

ALL:d

Vale Seismograph location



HARPER
24711

Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods

Aerial photographs taken 1946. Field check 1950

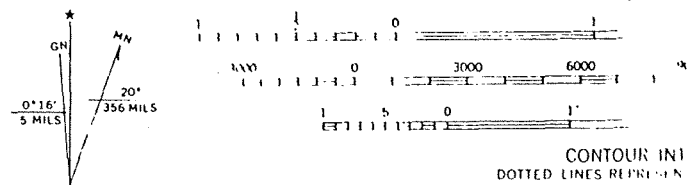
Polyconic projection. 1927 North American datum
10,000-foot grid based on Oregon coordinate system, south zone

Dashed land lines indicate approximate locations

Unchecked elevations are shown in brown

(VINES HILL 1:24 000)
2571 IV NW

SCALE

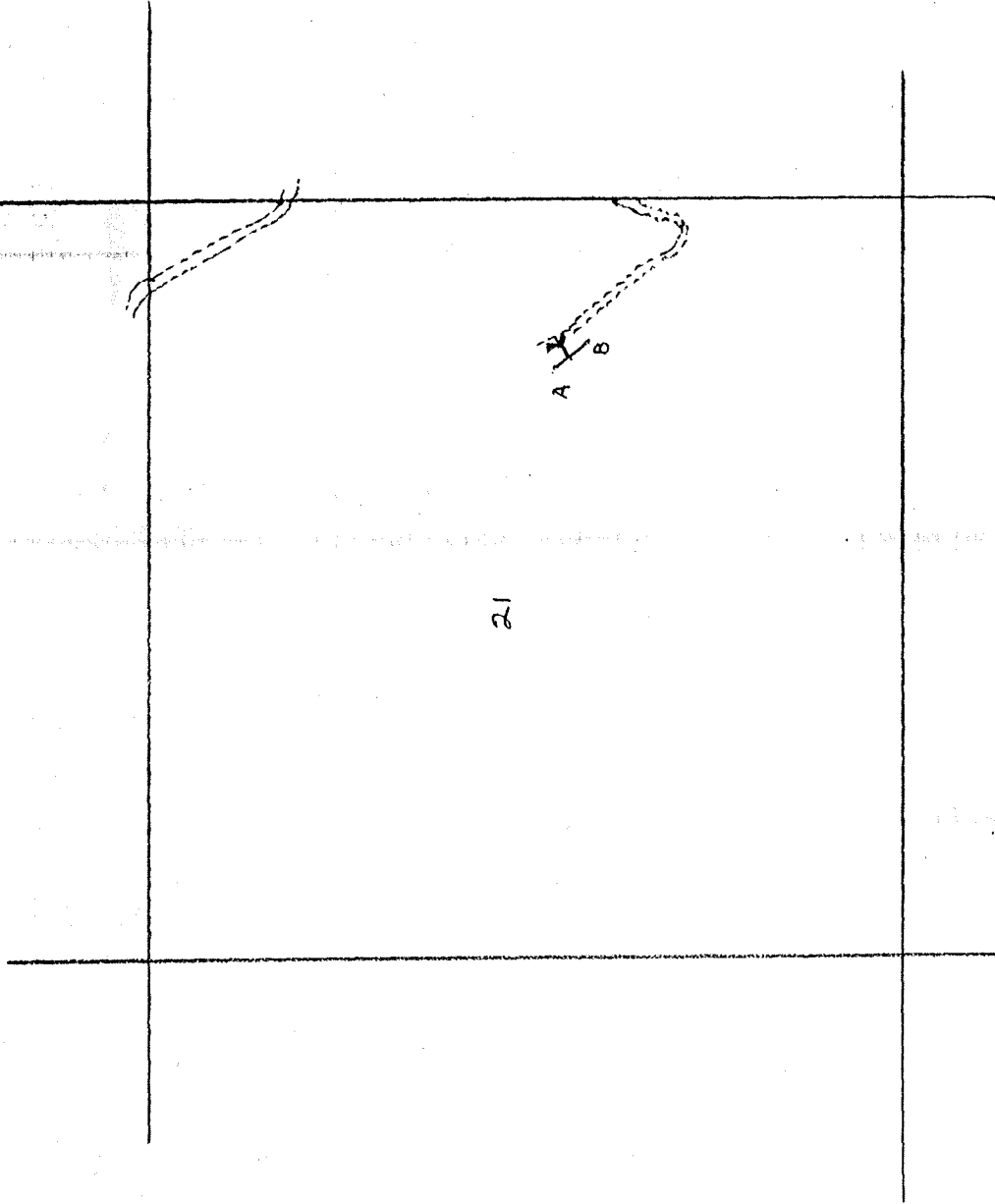


UTM GRID AND 1950 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

CONTOUR IN
DOTTED LINES REFER TO
DATUM

Vale Seismograph Location Map

SE 1/4 Sec 21 T17S R43E



Scale 4" = 1 mile

A = All geophones & seismographs
B = Orange geophone