U.S. DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY, PREPARED FOR

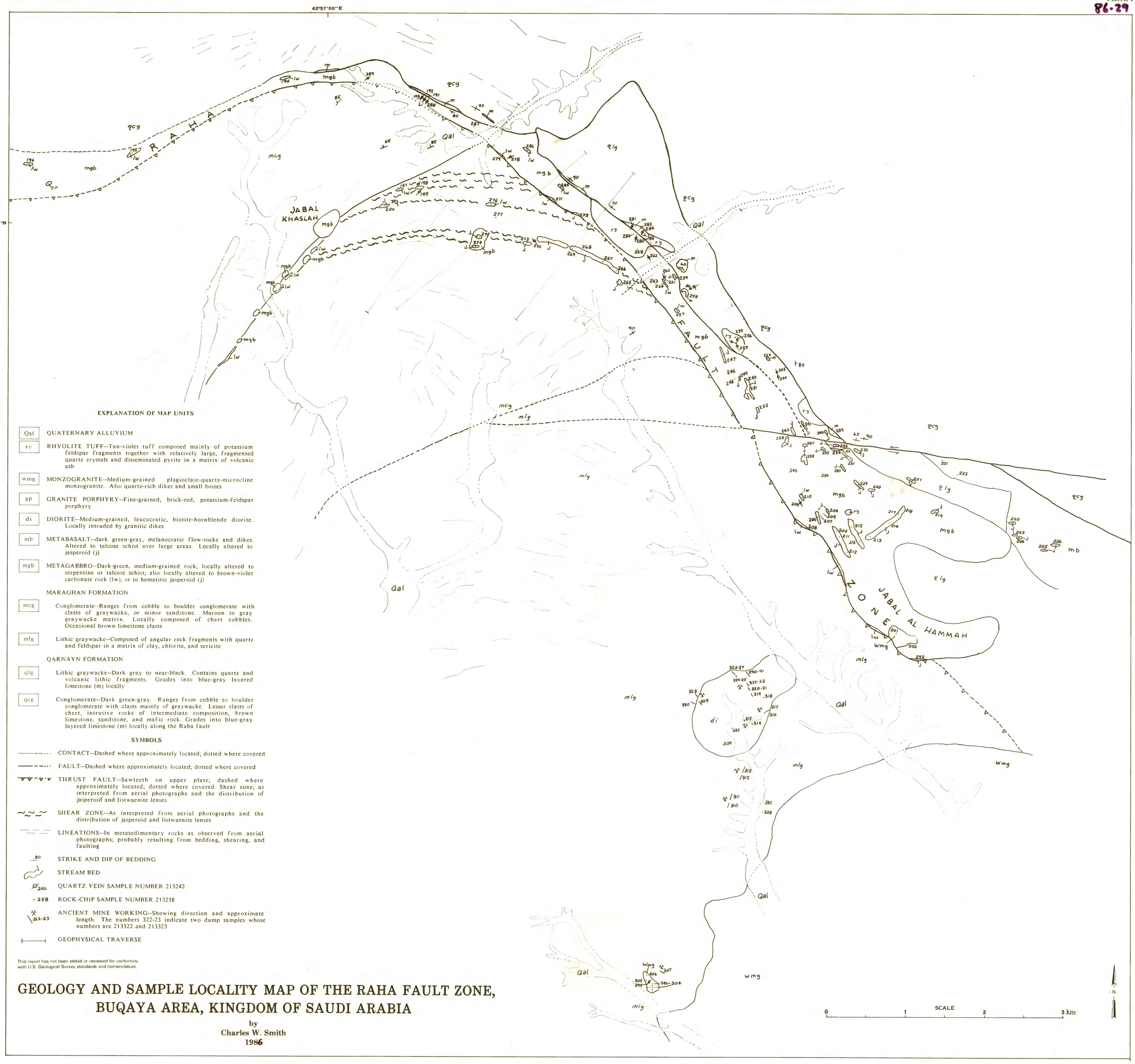
MINISTRY OF PETROLEUM AND MINERAL RESOURCES
DEPUTY MINISTRY FOR MINERAL RESOURCES

KINGDOM OF SAUDI ARABIA

OPEN-FILE REPORT [redacted]
PLATE 1
86-29

42°57'00"E

26°18'30"N



EXPLANATION OF MAP UNITS

Qal	QUATERNARY ALLUVIUM
ry	RHYOLITE TUFF--Tan-violet tuff composed mainly of potassium feldspar fragments together with relatively large, fragmented quartz crystals and disseminated pyrite in a matrix of volcanic ash
wmg	MONZOGRANITE--Medium-grained plagioclase-quartz-microcline monzogranite. Also quartz-rich dikes and small bosses
gp	GRANITE PORPHYRY--Fine-grained, brick-red, potassium-feldspar porphyry
di	DIORITE--Medium-grained, leucocratic, biotite-hornblende diorite. Locally intruded by granitic dikes
mb	METABASALT--dark green-gray, melanocratic flow-rocks and dikes. Altered to talcose schist over large areas. Locally altered to jasperoid (j)
mgb	METAGABBRO--Dark-green, medium-grained rock, locally altered to serpentine or talcose schist; also locally altered to brown-violet carbonate rock (lw), or to hematitic jasperoid (j)

MARAGHAN FORMATION

mcg	Conglomerate--Ranges from cobble to boulder conglomerate with clasts of graywacke, or minor sandstone. Maroon to gray graywacke matrix. Locally composed of chert cobbles. Occasional brown limestone clasts
mlg	Lithic graywacke--Composed of angular rock fragments with quartz and feldspar in a matrix of clay, chlorite, and sericite

QARNAYN FORMATION

qlg	Lithic graywacke--Dark gray to near-black. Contains quartz and volcanic lithic fragments. Grades into blue-gray layered limestone (m) locally
qcg	Conglomerate--Dark green-gray. Ranges from cobble to boulder conglomerate with clasts mainly of graywacke. Lesser clasts of chert, intrusive rocks of intermediate composition, brown limestone, sandstone, and mafic rock. Grades into blue-gray layered limestone (m) locally along the Raha fault

SYMBOLS

- CONTACT--Dashed where approximately located; dotted where covered
- FAULT--Dashed where approximately located; dotted where covered
- THRUST FAULT--Sawteeth on upper plate; dashed where approximately located; dotted where covered. Shear zone; as interpreted from aerial photographs and the distribution of jasperoid and listwaenite lenses
- SHEAR ZONE--As interpreted from aerial photographs and the distribution of jasperoid and listwaenite lenses
- LINEATIONS--In metasedimentary rocks as observed from aerial photographs; probably resulting from bedding, shearing, and faulting
- 80 STRIKE AND DIP OF BEDDING
- STREAM BED
- Ø242 QUARTZ VEIN SAMPLE NUMBER 213242
- ·258 ROCK-CHIP SAMPLE NUMBER 213258
- 322-23 ANCIENT MINE WORKING--Showing direction and approximate length. The numbers 322-23 indicate two dump samples whose numbers are 213322 and 213323
- GEOPHYSICAL TRAVERSE

This report has not been edited or reviewed for conformity with U.S. Geological Survey standards and nomenclature.

GEOLOGY AND SAMPLE LOCALITY MAP OF THE RAHA FAULT ZONE, BUQAYA AREA, KINGDOM OF SAUDI ARABIA

by
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1986