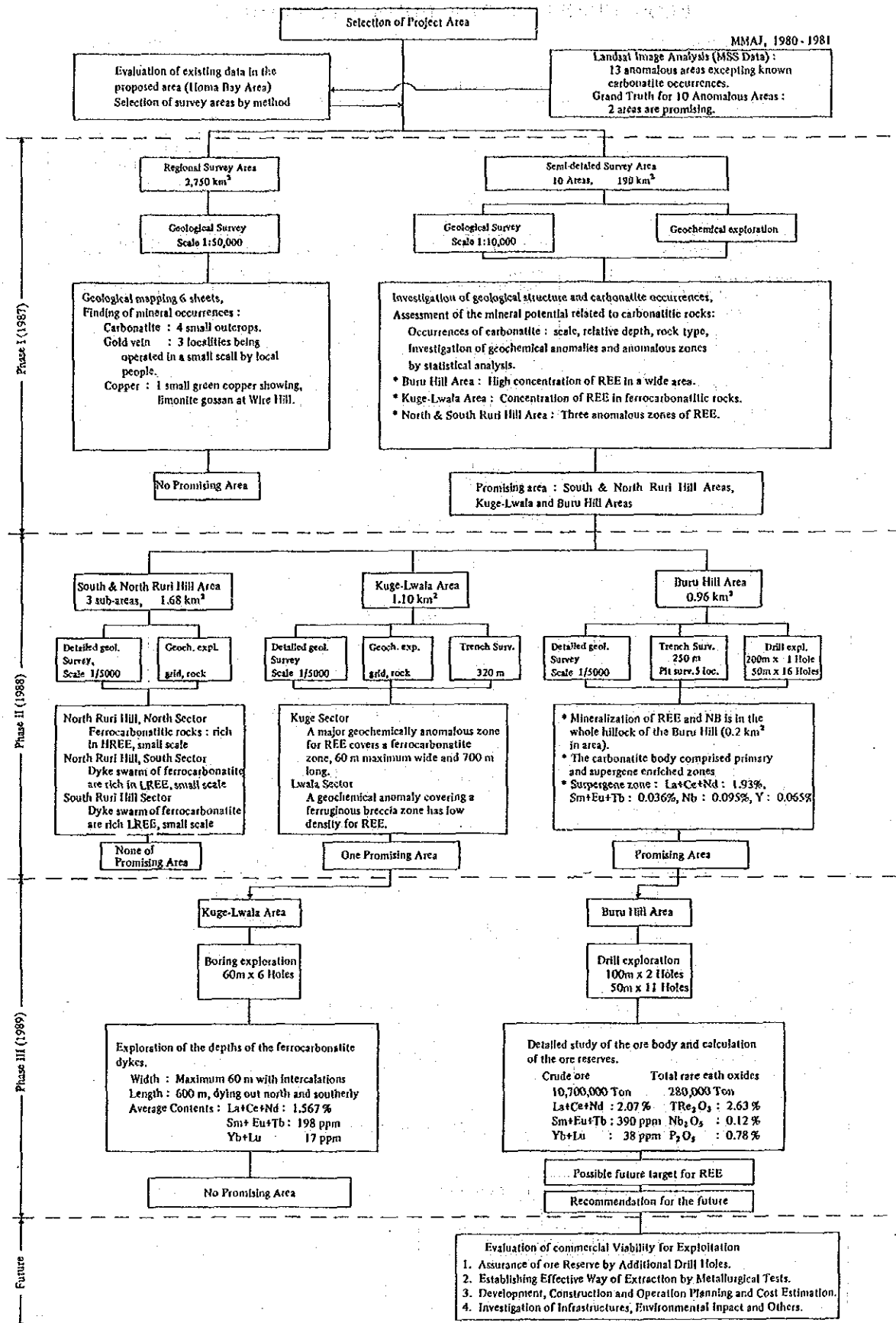


FLOW CHART OF SELECTION OF PROMISING AREA FOR MINERAL DEPOSITS

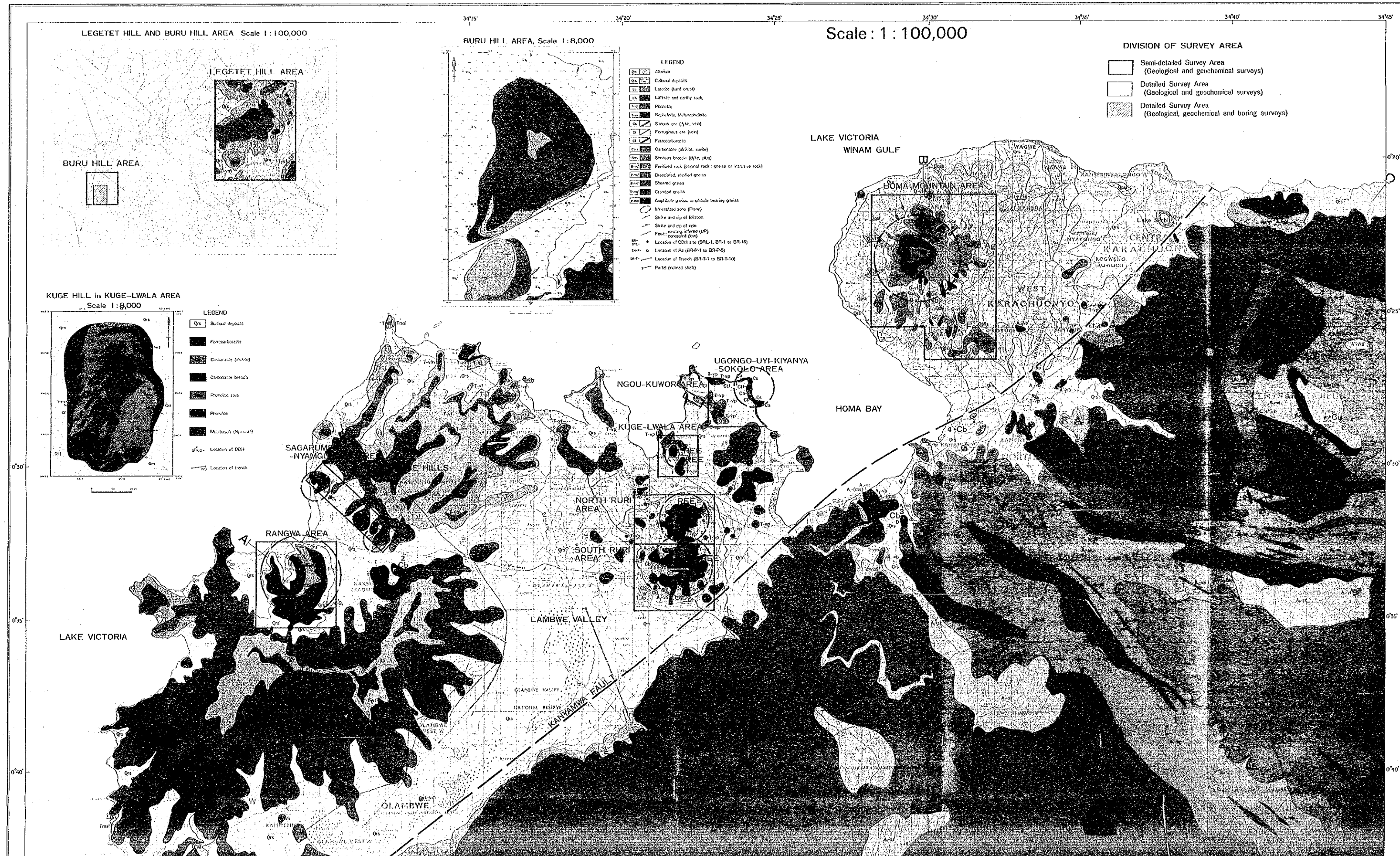


GEOLOGICAL MAP OF THE HOMA BAY AREA

SUMMARISING THE RESULTS OF THE MINERAL EXPLORATION 1987-1989

REPORT ON THE MINERAL EXPLORATION
IN THE HOMA BAY AREA
REPUBLIC OF KENYA

PREPARED BY JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) AND
METAL MINING AGENCY OF JAPAN (MMAJ) IN COOPERATION WITH MINES
AND GEOLOGICAL DEPARTMENT OF MINISTRY OF ENVIRONMENT AND
NATURAL RESOURCES OF KENYA. MARCH, 1990



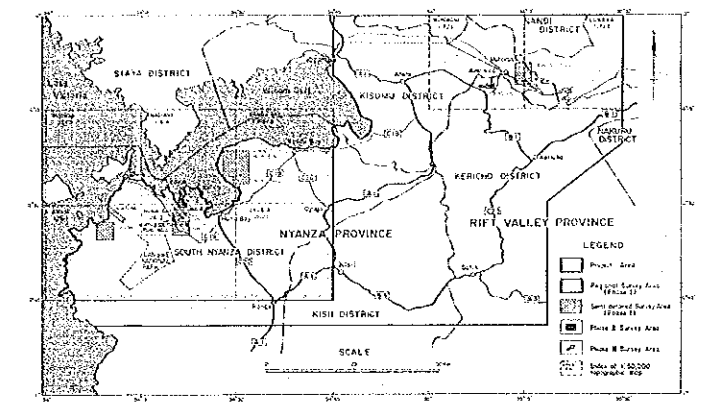
MAP OF THE HOMA BAY AREA

RESULTS OF THE MINERAL EXPLORATION 1987-1989

REPORT ON THE MINERAL EXPLORATION
IN THE HOMA BAY AREA
REPUBLIC OF KENYA

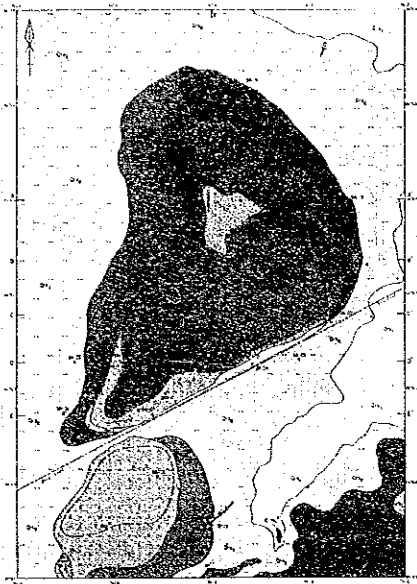
PREPARED BY JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) AND
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INDEX MAP OF THE SURVEY AREA



Scale: 1:100,000

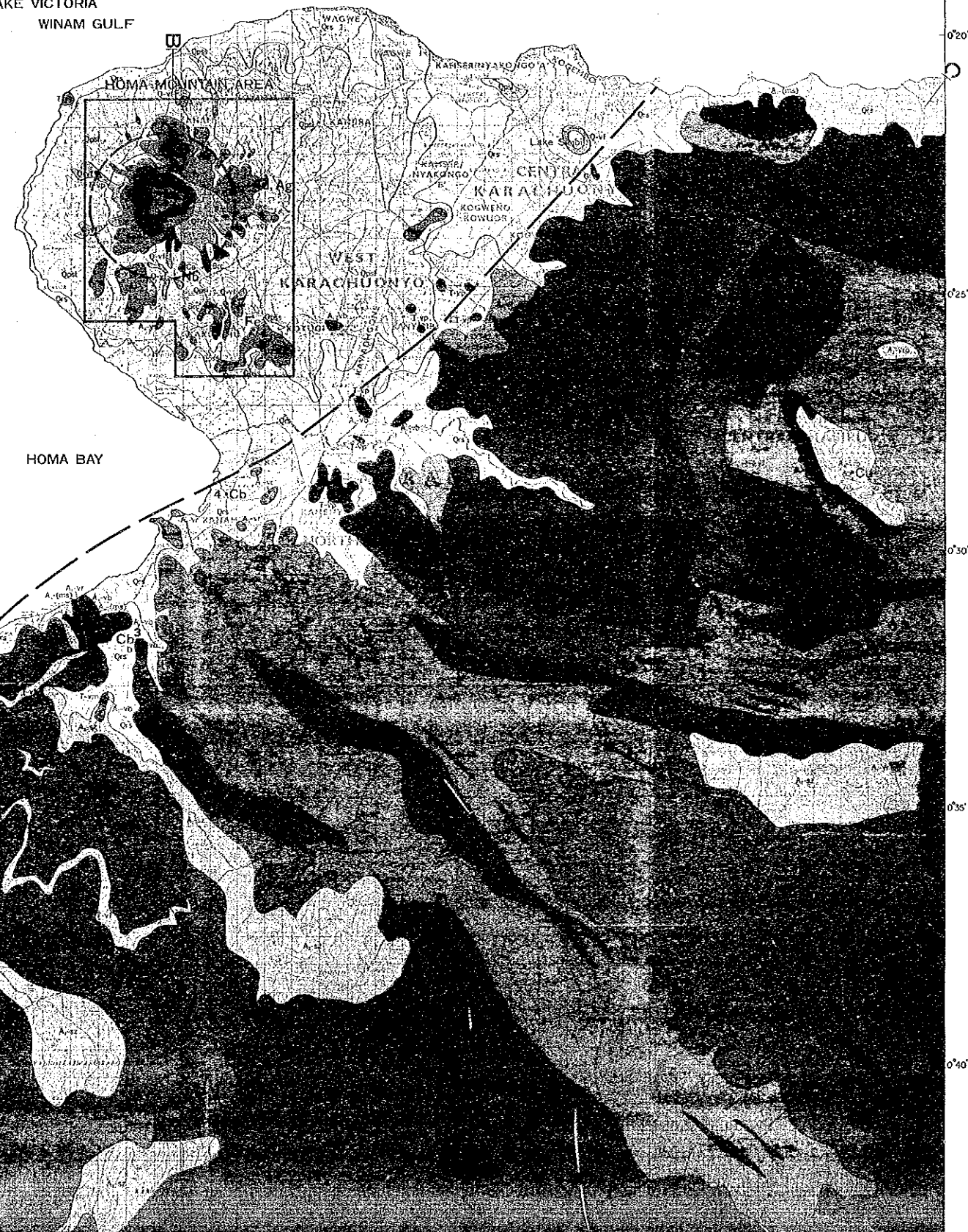
BURU HILL AREA, Scale 1:8,000



- LEGEND**
- Alkalin
 - Colored deposits
 - Laterite (hard crust)
 - Laterite and earthy rock
 - Phonolite
 - Mylonite, Microphelinite
 - Siliceous ore (style vein)
 - Ferrous ore (vein)
 - Ferrocyanate
 - Carbonate (siliceous, some)
 - Siliceous breccia (dike, plug)
 - Fossilized rock (original rock - gneiss or intrusive rock)
 - Dissected, shelled gneiss
 - Sheared gneiss
 - Granitic gneiss
 - Amphibole gneiss, amphibole bearing gneiss
 - Metacized zone (Pine)
 - Strike and dip of foliation
 - Strike and dip of vein
 - Fault - existing, inferred (UP - upward dip)
 - Location of GCH site (BR-1, BR-1 to BR-16)
 - Location of Pt (BR-P-1 to BR-P-5)
 - Location of Trench (BR-T-1 to BR-T-10)
 - Point (red dot)

- DIVISION OF SURVEY AREA**
- Semi-detailed Survey Area (Geological and geochemical surveys)
 - Detailed Survey Area (Geological and geochemical surveys)
 - Detailed Survey Area (Geological, geochemical and boring surveys)

LAKE VICTORIA
WINAM GULF

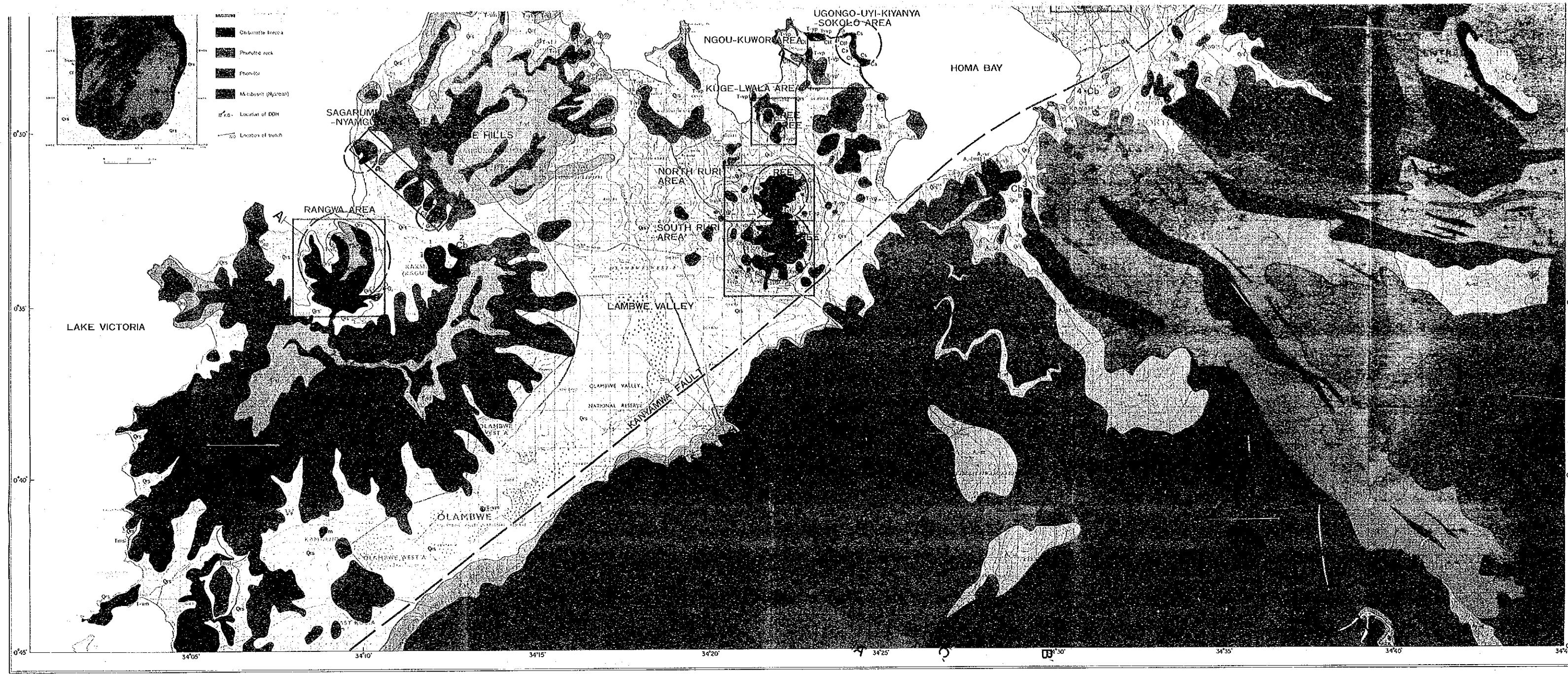


- LEGEND**
- STRATIGRAPHY**
- RECENT: Qr1 - Surficial deposits and alluvium; Qr2 - Talus deposits, eolian deposits
 - PLEISTOCENE: Qp1 - Lake beds; Qp2 - Sandstone, siltstone and conglomerate (BABA Series); Qp3 - Oolitic light tuff, tuff breccia and bedded tuff; Qp4 - Phonolite; Qp5 - Phonolite nephelinite (KUGE Area); Qp6 - Porphyric phonolite (SOKOLO Area); Qp7 - Microphelinite pyroclastic rocks; Qp8 - Microphelinite, melilitite; Qp9 - Nephelinite agglomerate, pyroclastic rocks
 - TERTIARY: Tm1 - Late beds: calcareous sandstone and tuff; Tm2 - Calcareous light tuff, tuff breccia; Tm3 - Calcareous tuff breccia; Tm4 - Calcareous light tuff, partly bedded; Tm5 - Calcareous bedded tuff; Tm6 - Tuff breccia
 - BUKOBAN SYSTEM: Bm1 - Quartzite; Bm2 - "Kisumu" sandstone; Bm3 - Basalt
 - KAVIRONDIAN SYSTEM: Ks1 - Conglomerate and sandstone
 - KAKSINGIRI SCHISTS: Ks2 - Biotite-quartz schist; Ks3 - Amphibole schist
 - NYANZIAN SYSTEM: Ns1 - Shattered volcanic rocks studied by dyke - veins of carbonate; Ns2 - Shredded volcanic rocks with network veins of carbonate; Ns3 - Shattered volcanic rocks, mainly metachert and metachertite; Ns4 - Porphyric rhyolite; Ns5 - Rhyolite lava and tuff; Ns6 - Andesite; Ns7 - Metasedimentary rocks; Ns8 - Micaschist
- CARBONATITE**
- Cc1 - Ferrocyanate; Cc2 - Carbonate (fine to medium grained); Cc3 - Carbonate (coarse-grained); Cc4 - Carbonate lens (LEGGETT HILL AREA); Cc5 - Carbonate breccia; Cc6 - Carbonate tuff; Cc7 - Calcareous extrusive breccia (HOMA MOUNTAIN AREA); Cc8 - Ferrous breccia (KUGE AREA)
- INTRUSIVES**
- TERTIARY**
- It1 - Nephelinite syenite; It2 - Microphelinite gneiss (SAGARUME AREA); It3 - Igneous unconsolidated
- POST-KAVIRONDIAN (PRECAMBRIAN)**
- Pk1 - Fossiliferous granitic rocks (SAGARUME AREA); Pk2 - Granite, gneiss; Pk3 - Diorite; Pk4 - Granite, gneiss
- POST-NYANZIAN (PRECAMBRIAN)**
- Pn1 - Granite, gneiss
- OTHER SYMBOLS**
- Dashed line: Geological boundary
 - Solid line: Fault
 - Line with dots: Strike and dip of bedding
 - Line with triangles: Strike and dip of schistosity
 - Line with circles: Strike and dip of banding
 - Circle with dot: Carbonate center
 - Circle with cross: Iron ore, gossan
 - Circle with star: Quartz vein
- MINERAL LOCALITY OR SHOWING**
- REE: Rare earth elements including yttrium
 - Nb: Niobium
 - Cu: Copper
 - Fe: Iron
 - Au, Ag: Gold and silver
 - Cb: Carbonate mealy found

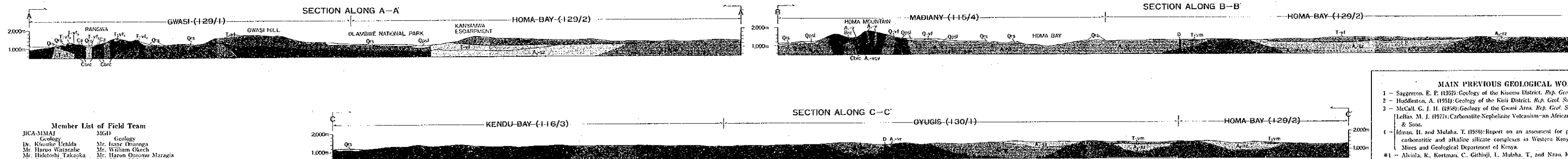
SUMMARY OF MINERAL EXPLORATION

Name of Area	Type	Location	Summary of Findings
El-Chakwa	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.
Ngongu-Uyi-Kiyanya Sokolo Area	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.
Ngongu-Kuwora Area	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.
Kuge-Lwala Area	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.
North Ruri Area	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.
South Ruri Area	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.
Lambwe Valley	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.
Ngongu-Kuwora Area	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.
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North Ruri Area	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.
South Ruri Area	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.
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Ngongu-Kuwora Area	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.
Kuge-Lwala Area	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.
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Lambwe Valley	REE	1. To the NW of Mt. Olonei 2. To the NE of Mt. Olonei 3. To the SW of Mt. Olonei 4. To the SE of Mt. Olonei	1. A REE mineralization zone with a width of about 3 m. 2. A REE mineralization zone with a width of about 3 m. 3. A REE mineralization zone with a width of about 3 m. 4. A REE mineralization zone with a width of about 3 m.

Name of Area	Area of Survey	Number of Geochemical Samples	Summary of Geology	Summary of Geochemistry
Babu	26,300 km ²	218	Alluvial deposits (Qr1, Qr2) cover the entire area. Underlying rocks are mainly igneous and metamorphic.	REE, Nb, Cu, Fe, Au, Ag, Cb are found in the alluvial deposits.
Ngongu-Kuwora Area	9,750 km ²	76	Several narrow dykes and 2 small dykes cut the area. The rocks are mainly igneous and metamorphic.	No highly anomalous REE values were found in the area.
North Ruri and South Ruri	1,000 km ²	217	Shallow dykes of carbonates are found in the area. The rocks are mainly igneous and metamorphic.	Highly anomalous REE values were found in the area. The REE values are mostly in the range of 100-1000 ppm.
Lambwe Valley	1,000 km ²	218	Shallow dykes of carbonates are found in the area. The rocks are mainly igneous and metamorphic.	Highly anomalous REE values were found in the area. The REE values are mostly in the range of 100-1000 ppm.
Ngongu-Kuwora Area	9,750 km ²	76	Several narrow dykes and 2 small dykes cut the area. The rocks are mainly igneous and metamorphic.	No highly anomalous REE values were found in the area.
North Ruri and South Ruri	1,000 km ²	217	Shallow dykes of carbonates are found in the area. The rocks are mainly igneous and metamorphic.	Highly anomalous REE values were found in the area. The REE values are mostly in the range of 100-1000 ppm.
Lambwe Valley	1,000 km ²	218	Shallow dykes of carbonates are found in the area. The rocks are mainly igneous and metamorphic.	Highly anomalous REE values were found in the area. The REE values are mostly in the range of 100-1000 ppm.
Ngongu-Kuwora Area	9,750 km ²	76	Several narrow dykes and 2 small dykes cut the area. The rocks are mainly igneous and metamorphic.	No highly anomalous REE values were found in the area.
North Ruri and South Ruri	1,000 km ²	217	Shallow dykes of carbonates are found in the area. The rocks are mainly igneous and metamorphic.	Highly anomalous REE values were found in the area. The REE values are mostly in the range of 100-1000 ppm.
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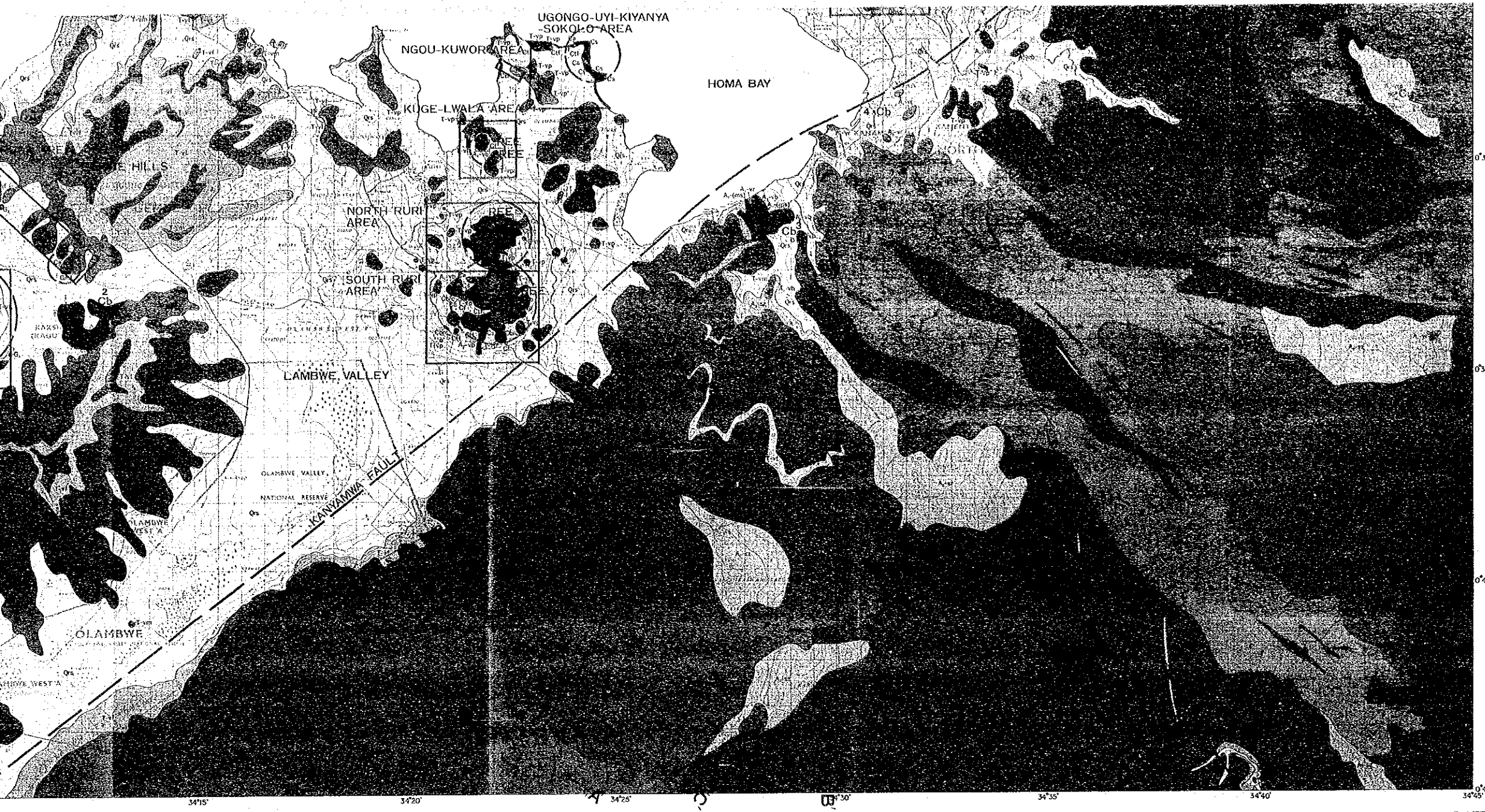


Member List of Field Team

JICA/MAJ	MGD
Geology	Geology
Dr. Kinsuke Uchida	Mr. Isaac Omongo
Mr. Haruo Watanabe	Mr. William Oketch
Mr. Hideohisa Takagaki	Mr. Haron Otonoi Maragia
Mr. Atsumu Nonami	Mr. Albert Mahaja
Mr. Takumi Onuma	Mr. Peter Ogunja
Boring	Mr. John Kibe
Mr. Katsugi Naita	Mr. Adipo Komo
Mr. Taketaro Marabe	Mr. Isaac
Mr. Masaki Fujita	Mr. E. Lishaya
	Mr. Joseph Argo
	Mr. Peter Obiero
	Mr. Chamboze Sembu

MAIN PREVIOUS GEOLOGICAL WORK

- 1 - Saggerson, E. P. (1952): Geology of the Kisumu District. *Rep. Geol. Surv. Kenya*.
- 2 - Huddleston, A. (1951): Geology of the Kisumu District. *Rep. Geol. Surv. Kenya*.
- 3 - McCall, G. J. H. (1958): Geology of the Gwasi Area. *Rep. Geol. Surv. Kenya*.
- 4 - LeBas, M. J. (1977): Carbonatite-Nephelinite Volcanism - an African Case Study. *Geology*, 5, 105-108.
- 5 - Minnis, H. and Mulaha, T. (1959): Report on an assessment for phonolitic and alkaline silicate complexes in Western Kenya. Mines and Geological Department of Kenya.
- 6 - Alvin, R., Kortman, C., Githinji, I., Mulaha, T., and Njau, K. (1968): Preliminary geological investigations in the Kuru and Songhor areas. Geological Department of Kenya.
- 7 - Metal Mining Agency of Japan (1961): Report of Study on Development of Mineral Resources in Kenya. Technology (in Japanese).
- 8 - Stage, F. W. (1963): Geology of the Kericho Area. *Rep. Geol. Surv. Kenya*.
- 9 - Leggett, H. (1963): Geology of the Kericho Area. *Rep. Geol. Surv. Kenya*.



BUKOBAN SYSTEM
 Quartzite
 Gneiss "sagittaria"
 Basalt

KAVIRIONDIAN SYSTEM
 Gneiss and schistose
KAKSINGIRI SCHISTS
 Biotite quartz schist
 Amphibole schist

NYANZIAN SYSTEM
 Shattered volcanic rocks
 strongly altered volcanic rocks
 with network veins of carbonates
 Shattered volcanic rocks
 mainly metasediments and metahyalite
 Pyroxene thalite
 Rhyolite tuff and tuff
 Andesite
 Metasedimentary rocks
 Metabasalt

POST-NYANZIAN (PRECAMBRIAN)
 Gneiss, granulite

OTHER SYMBOLS
 Geological boundary
 Fault
 Strike and dip of bedding
 Strike and dip of schistosity
 Strike and dip of banding
 Carbonate center
 Iron ore, gossan
 Quartz vein

MINERAL LOCALITY OR SHOWING
 REE Rare earth elements including yttrium
 Nb Niobium
 Cu Copper
 Fe Iron
 Au, Ag Gold and silver
 Cb Carbonate newly found

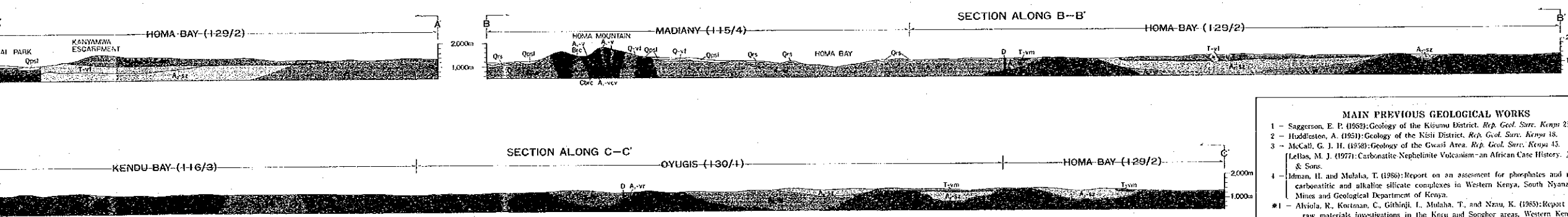
SUMMARY OF MINERAL EXPLORATION

Name of Area	Type	Location	Summary of Findings
Exploration	1. To the NW of Homa Bay	1. To the NW of Homa Bay	Albit and feldspar occur in place with a small fraction of quartz. The width of dykes is about 3 m.
	2. To the SE of Homa Bay	2. To the SE of Homa Bay	A prominent quartz vein was found in a dyke in a small outcrop. The width of dyke is about 5 m.
	3. To the SW of Homa Bay	3. To the SW of Homa Bay	Flows of fine compactly foliated carbonates.
Detailed Survey Area	4. To the SE of Homa Bay	4. To the SE of Homa Bay	Saturated veins with carbonate fill occur in a small area.
	5. To the SW of Homa Bay	5. To the SW of Homa Bay	A whole rock sample from 3 to 10 cm with veins in a fractured zone was found and is being treated in a small scale pilot plant.
	6. To the SW of Homa Bay	6. To the SW of Homa Bay	Finding operations in phase 2 and 3 are in progress in this area.
Copper	7. To the SW of Homa Bay	7. To the SW of Homa Bay	Quartz veins about 5 cm in width occur in a fractured zone and are being treated in a small scale pilot plant.
	8. To the SW of Homa Bay	8. To the SW of Homa Bay	Greenish to grey, poorly indurated, some clay partings in grey rocks. The Cu content is reported to be 0.1%.
	9. New area	9. New area	A massive, fine-grained, greenish to grey, rock has been found. The Cu content is reported to be 0.2% and the Ni content is reported to be 0.05%.

Detailed and Detailed Survey Areas

Name of Area	Area of Survey	Number of Geophysical Surveys	Summary of Geology	Summary of Geochemistry
Burra	75.50 km ²	239	An oval carbonaceous body (2.6 x 1.4 km) containing massive bitumens, bitite and carbonaceous rocks.	Several highly anomalous values for Fe, Cu, Ni, Pb, Zn, Mn, Sr, Ba, K, Rb, Cs, Th, U, Y, Zr, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
Sagitta	9.18 km ²	79	Several narrow, shallow dykes and 7 or 8 m wide basaltic dykes occur in the area.	Several highly anomalous values for Fe, Cu, Ni, Pb, Zn, Mn, Sr, Ba, K, Rb, Cs, Th, U, Y, Zr, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
North Hill	1.92 km ²	279	A shallow basin of carbonaceous rocks is exposed at the top of the hill. (North Hill - 2 km, South Hill - 2.5 km). Several dykes and veins of carbonates are exposed in the area.	Highly anomalous values for REE, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
Kupe Hill	1.18 km ²	31	A carbonaceous body (1.00 x 0.50 km) is exposed at the top of the hill.	Highly anomalous values for REE, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
	1.10 km ²	356	Remnants of a large dyke (1.00 x 0.50 km) are exposed at the top of the hill. Several veins of carbonates are exposed in the area.	Highly anomalous values for REE, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
New River	0.83 km ²	15	Several dykes and veins of carbonates are exposed in the area.	Several highly anomalous values for REE, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
	0.83 km ²	51	A carbonaceous body (0.83 x 0.83 km) is exposed at the top of the hill. Several veins of carbonates are exposed in the area.	Several highly anomalous values for REE, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
North Hill	1.92 km ²	279	A shallow basin of carbonaceous rocks is exposed at the top of the hill. (North Hill - 2 km, South Hill - 2.5 km). Several dykes and veins of carbonates are exposed in the area.	Highly anomalous values for REE, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
New River	0.83 km ²	15	Several dykes and veins of carbonates are exposed in the area.	Several highly anomalous values for REE, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
	0.83 km ²	51	A carbonaceous body (0.83 x 0.83 km) is exposed at the top of the hill. Several veins of carbonates are exposed in the area.	Several highly anomalous values for REE, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
New River	0.83 km ²	15	Several dykes and veins of carbonates are exposed in the area.	Several highly anomalous values for REE, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
	0.83 km ²	51	A carbonaceous body (0.83 x 0.83 km) is exposed at the top of the hill. Several veins of carbonates are exposed in the area.	Several highly anomalous values for REE, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
New River	0.83 km ²	15	Several dykes and veins of carbonates are exposed in the area.	Several highly anomalous values for REE, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.
	0.83 km ²	51	A carbonaceous body (0.83 x 0.83 km) is exposed at the top of the hill. Several veins of carbonates are exposed in the area.	Several highly anomalous values for REE, Nb, Ta, Hf, Ti, V, Cr, Co, Ni, Cu, Zn, Ga, Ge, As, Se, Mo, Ag, Cd, Sn, Sb, Te, Bi, Po, At, Rn, Fr, Ra, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr, and other elements were found in this area.

1:100,000



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