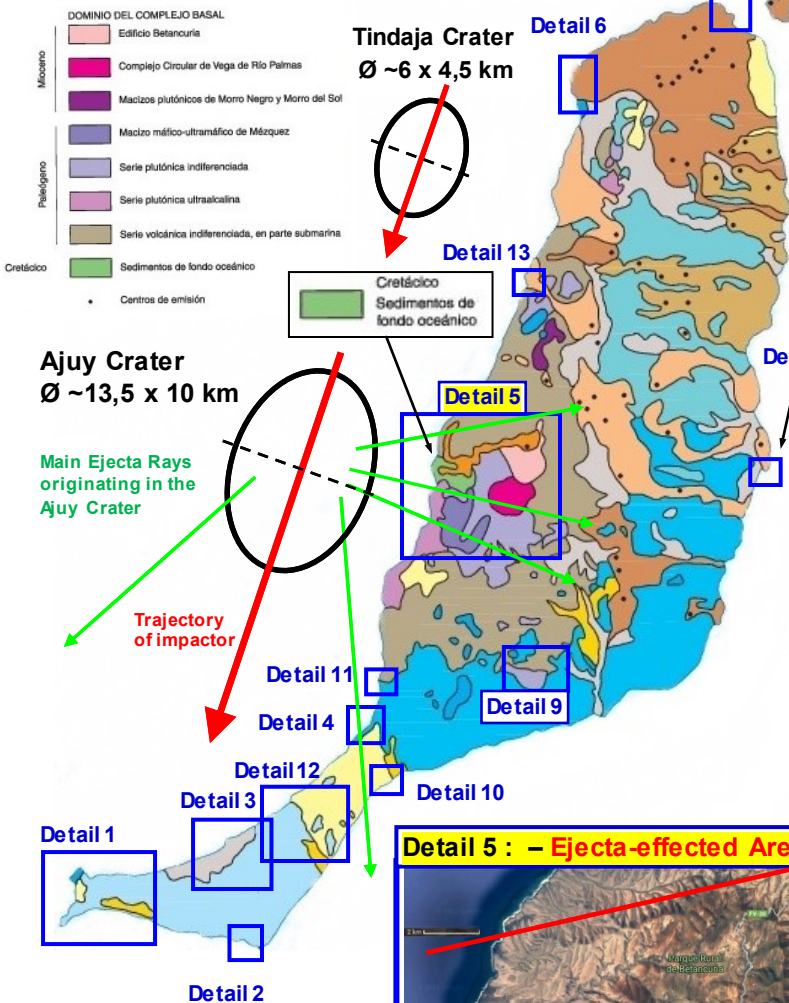


Overview of areas where samples were collected :

Canary Islands 2 (Spain) – Fuerteventura / Lanzarote

Fuerteventura

→ Geological Map Fuerteventura with selected areas



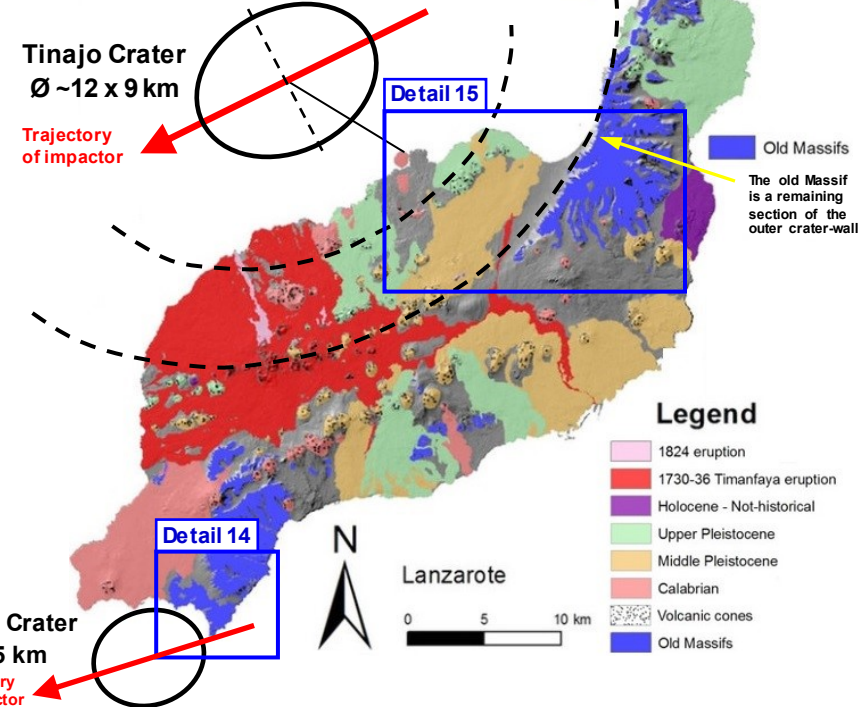
The two Canary Islands **Fuerteventura** and **Lanzarote** show evidence of a large scale Impact Event. This impact event probably was the result of ejecta from the **PTI** (Permian Triassic Impact) which impacted in this area and caused the **Ø 430x290 km Gibraltar Crater (GIC)**. The shown smaller oblique impact craters belong to this impact event and are located along the original wall (rim) of the hypothetical **GIC**

The gravity anomaly map of **Fuerteventura** indicates a larger **13,5x19 km** and a smaller **6x4,5 km** elliptical crater offshore of the west-coast of Fuerteventura on the ocean floor. The gravity anomaly map also indicates a **12x9 km** crater offshore of the north-west coast of **Lanzarote** and a smaller **7x5 km** crater offshore of Lanzarote's southern end.



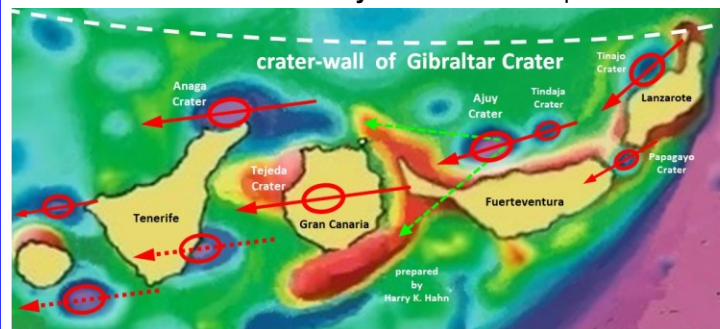
Lanzarote

→ Geological Map of Lanzarote with selected areas



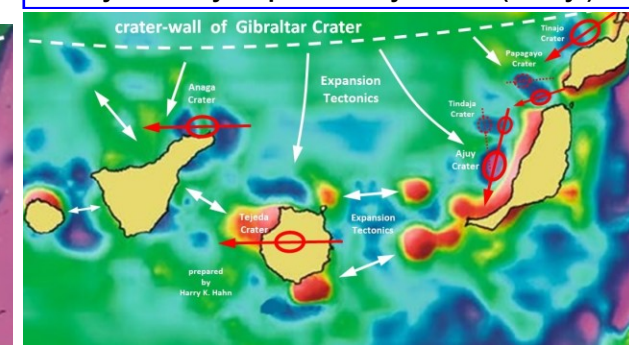
manipulated Gravity Anomaly Map :

→ Islands locations shortly after the PTI - impact event :

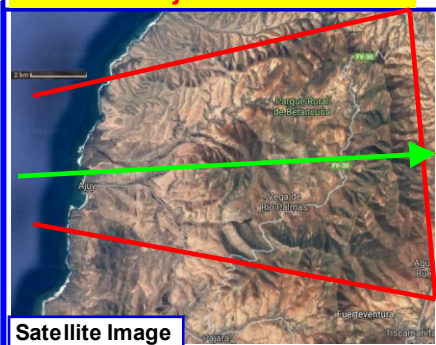


→ original Gravity Anomaly Map :

Gravity Anomaly Map – Canary Islands (today) :



Detail 5 : – Ejecta-effected Area



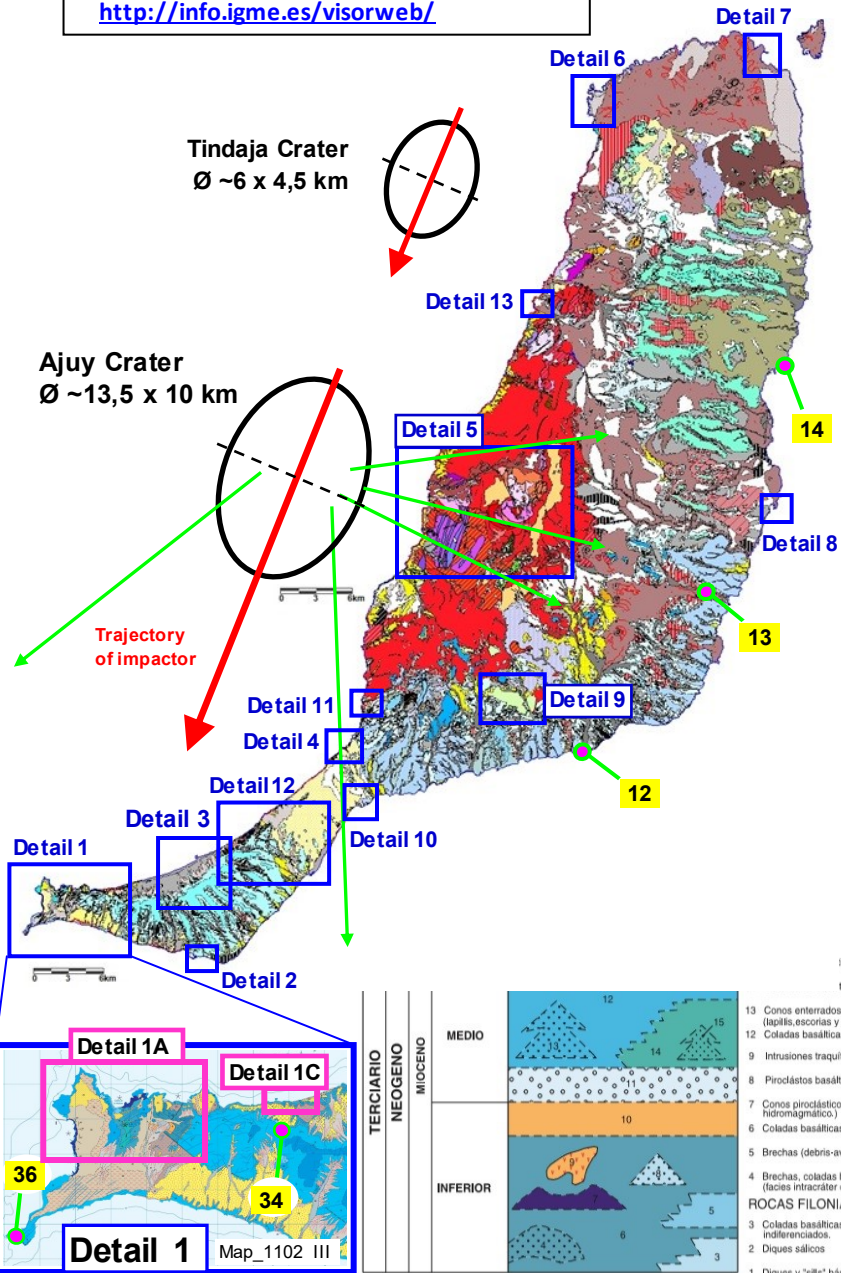
Fuerteventura

Sample sites No : **1** to **59**
marked in yellow on the maps

→ **Geological Map 1 : 50000** of Fuerteventura
with selected areas

→ Weblink to Digital Geological-Map (IGME) :

<http://info.igme.es/visorweb/>



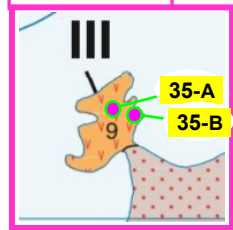
Detail 3A → Sample Site 35 A



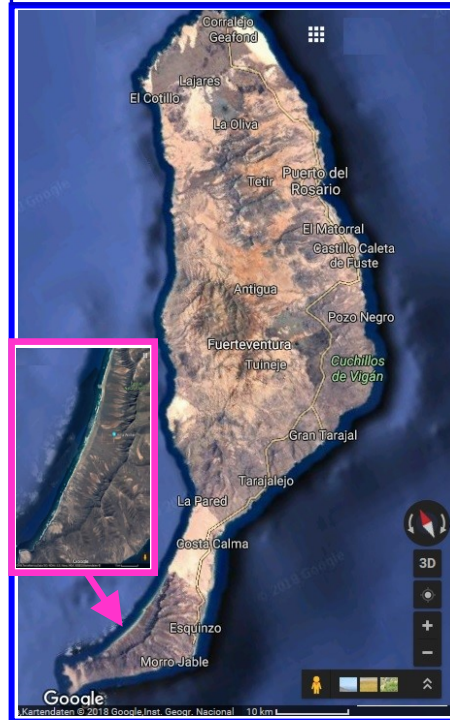
Detail 3A → Sample Site 35 A



Detail 3A



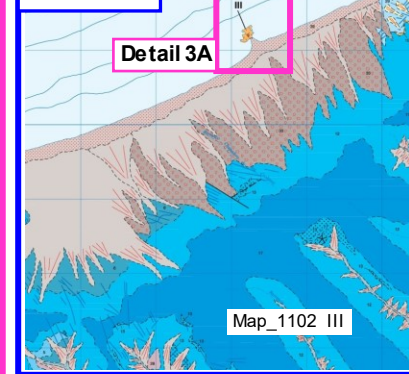
Fuerteventura – Satellite Image



Detail 3A – Satellite Image



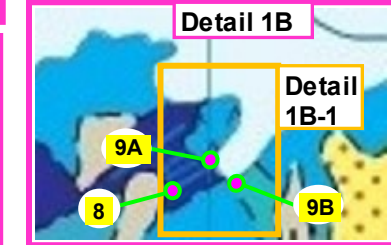
Detail 3



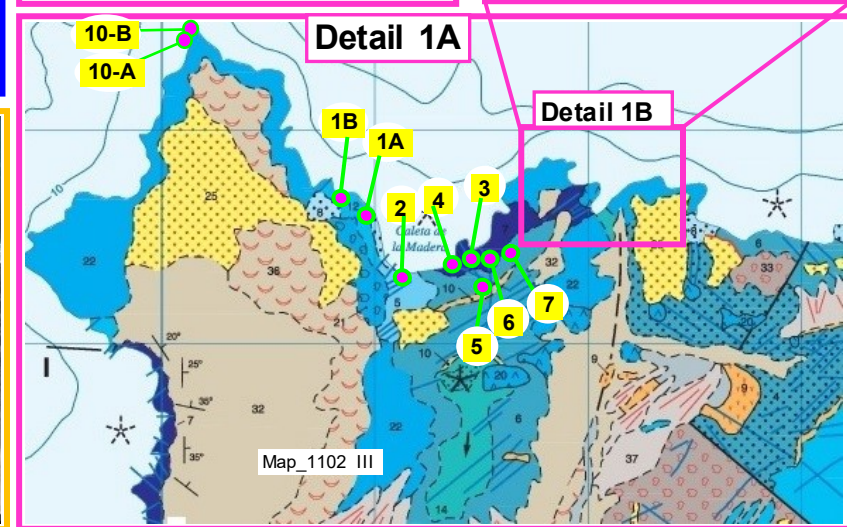
Detail 1A



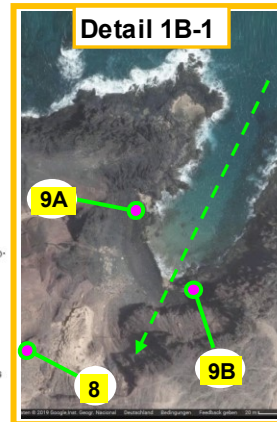
Detail 1B



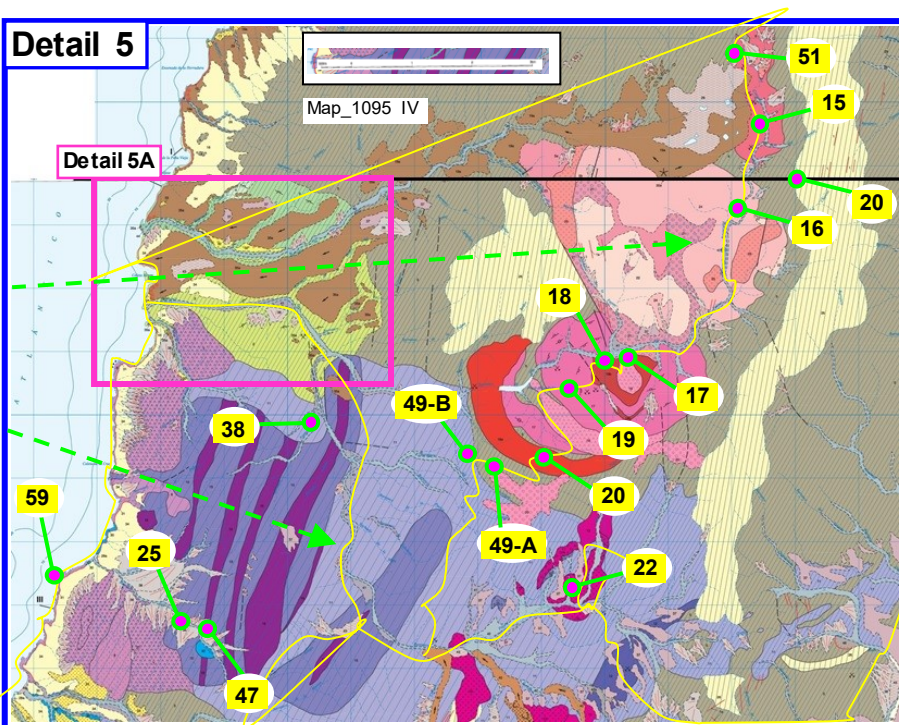
Detail 1A



Detail 1B-1

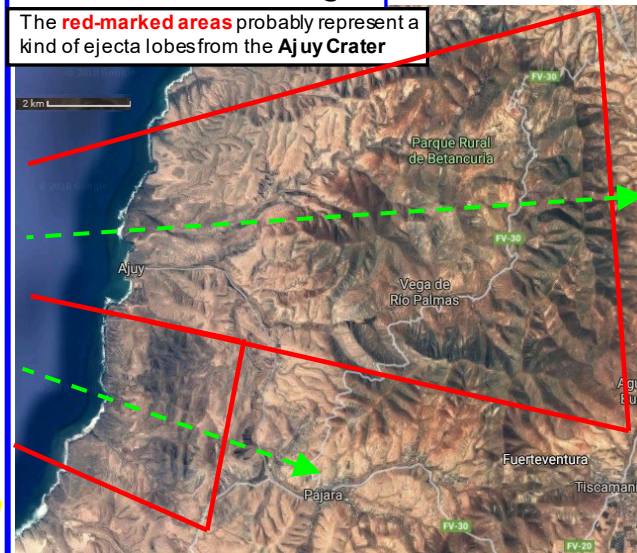


Detail 5



Detail 5 – Satellite Image

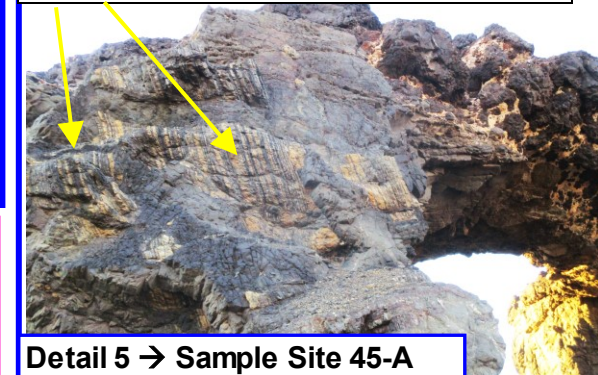
The **red-marked areas** probably represent a kind of ejecta lobes from the **Ajuy Crater**



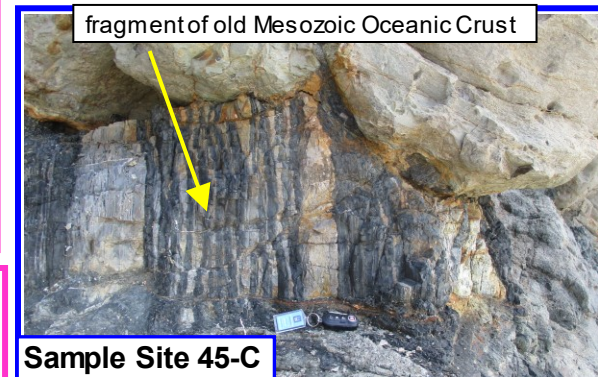
Sample Site 41

The sqm-size fragments of **old Mesozoic Ocean-Crust** (possibly **>252 million years old**) visible on **sample sites 45, 23 and 48-C**, and the larger section of old ocean crust on **site 41**, with nearly vertical inclination, together with the assumed tectonic motion of the Canary Islands (see **page 1**) indicate a large **Impact Event**.

fragments of old Mesozoic Oceanic Crust mixed with different Breccia Rock fragments



Detail 5 → Sample Site 45-A



Sample Site 45-C



Sample Site 49

MACIZO MÁFICO - ULTRAMÁFICO DE MEZQUEZ

TERC. NEOG.	MIOCENO
16	15

MACIZO MÁFICO - ULTRAMÁFICO DE MEZQUEZ

- 16 Gabros s.l.
- 15 Werhilitas y piroxenitas

SERIES PLUTÓNICAS INDIFERENCIADAS

OLIGOCENO SUP.- MIOCENO	26	13	12	11
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SERIES PLUTÓNICAS INDIFERENCIADAS

- 14 Brechas sálicas compactas (Morro Gregorio)
- 13 Intrusivos sálicos traquíticos y sieníticos. (+) Masas sieníticas individuales
- 12 Werhilitas y piroxenitas
- 11 Intrusiones de gabros purifaciales indiferenciados
- 10 Brechas de intrusión

SERIE INTRUSIVA ULTRAALCALINA

TERC. PALEOG.	OLIGOCENO SUP.
8	6

SERIE INTRUSIVA ULTRAALCALINA

- 9 Intrusivo fonolítico de Morro del Jablito
- 8 Macizo sienítico de El Recogedero
- 7 Intrusivos sálicos indiferenciados (traquitas, fonolitas y sienitas)
- 6 Piroxenitas (melteigitas). Ijolitas, sienitas y carbonatitas (▲)

LAVAS Y PIROCLASTOS EN PARTE SUBMARINOS

OLIGOCENO	26	5
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LAVAS Y PIROCLASTOS EN PARTE SUBMARINOS

- 5 Lavas, tobas y brechas indiferenciadas en parte de origen submarino

SEDIMENTOS DE FONDO OCEÁNICOS

JURÁSICO INF.- CRETÁCICO	4
	3
	2

ROCAS FILONIANAS

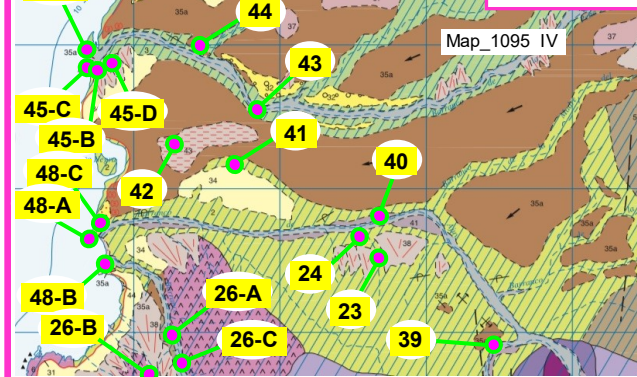
- 1b Diques básicos

- 1a Diques sálicos

ROCAS FILONIANAS

1a	1b
----	----

Detail 5A

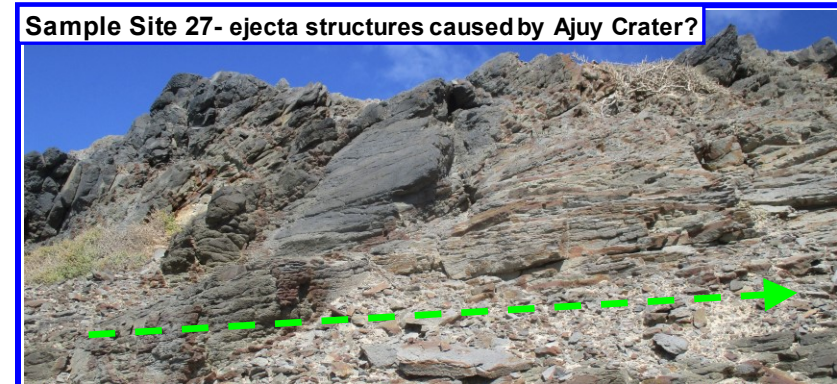
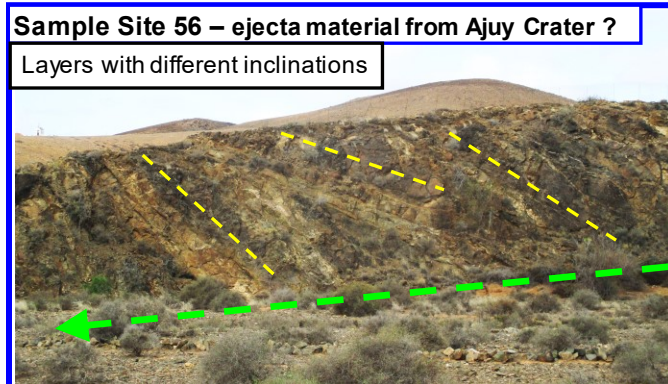
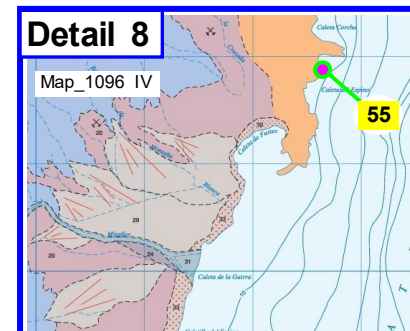
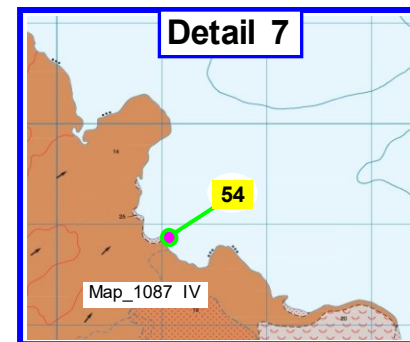
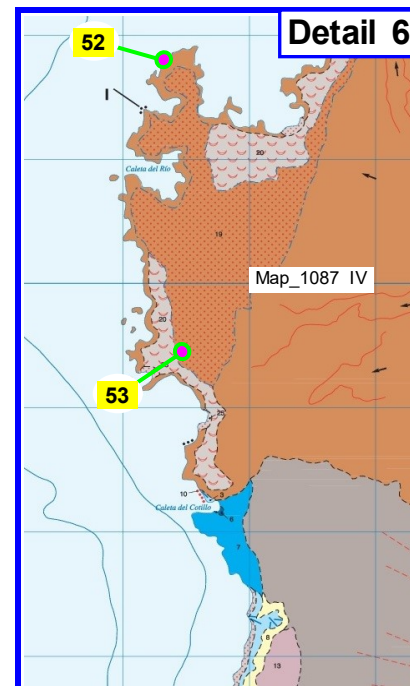
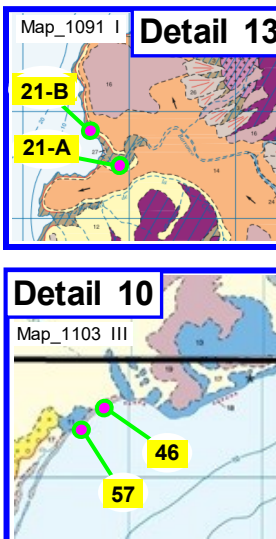
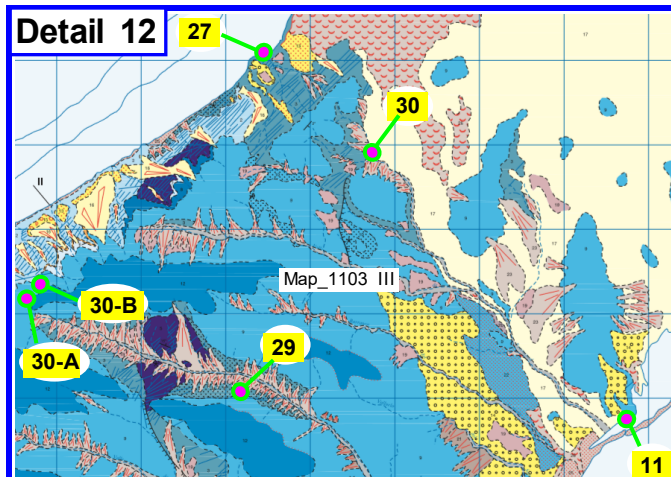
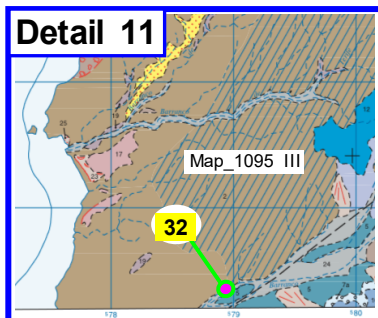
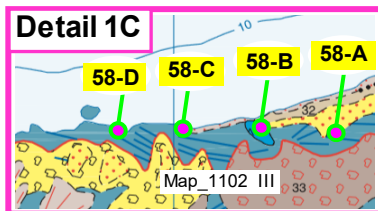
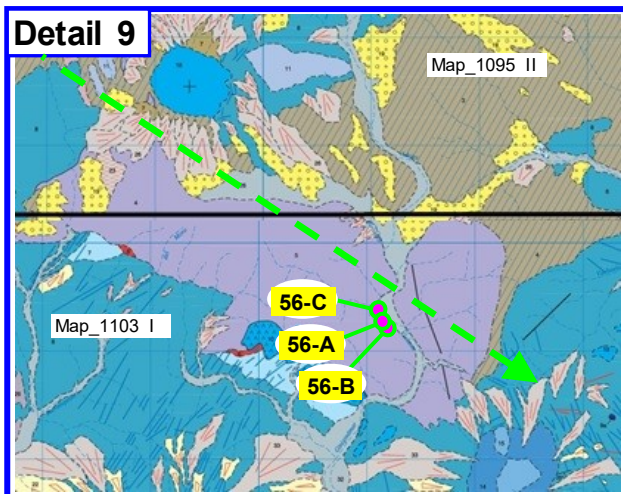
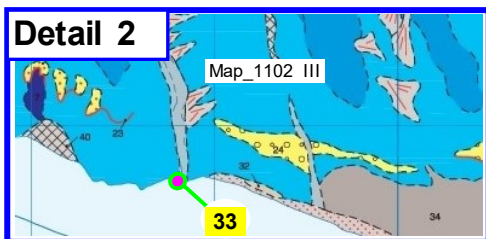
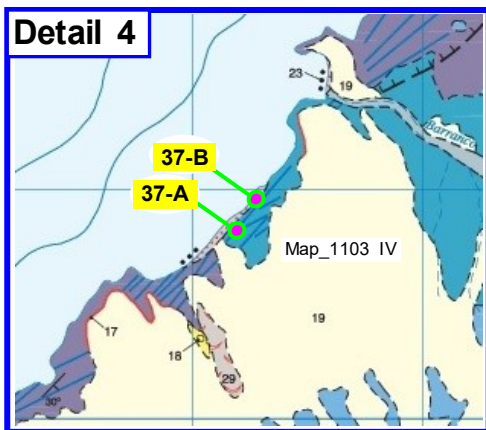


Detail 5A



Fuerteventura

Sample sites No : **1** to **59**
marked in yellow on the maps

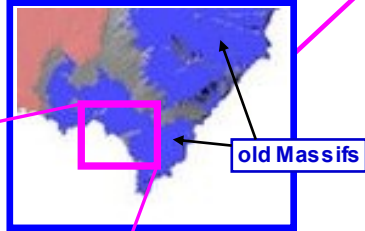


Lanzarote

Geological Map 1 : 50000 of Lanzarote
with selected areas

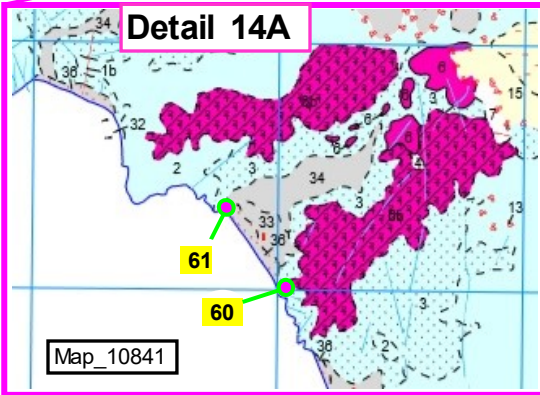
Sample sites No : **60 to 68**
marked in yellow

Detail 14

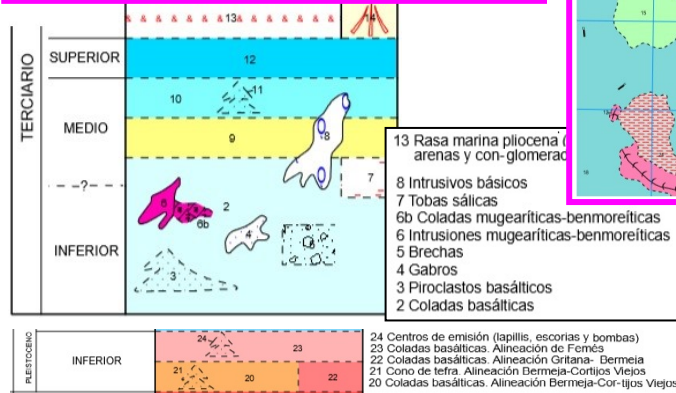


old Massifs

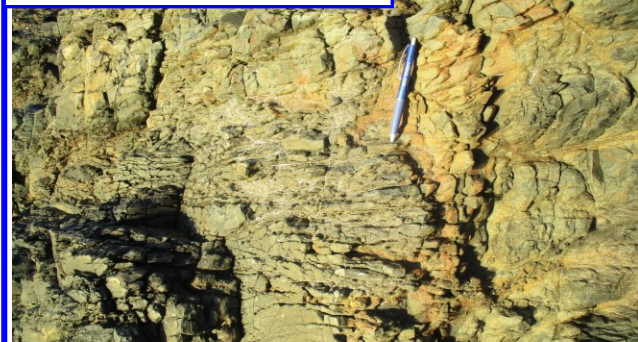
Detail 14A



Map_10841

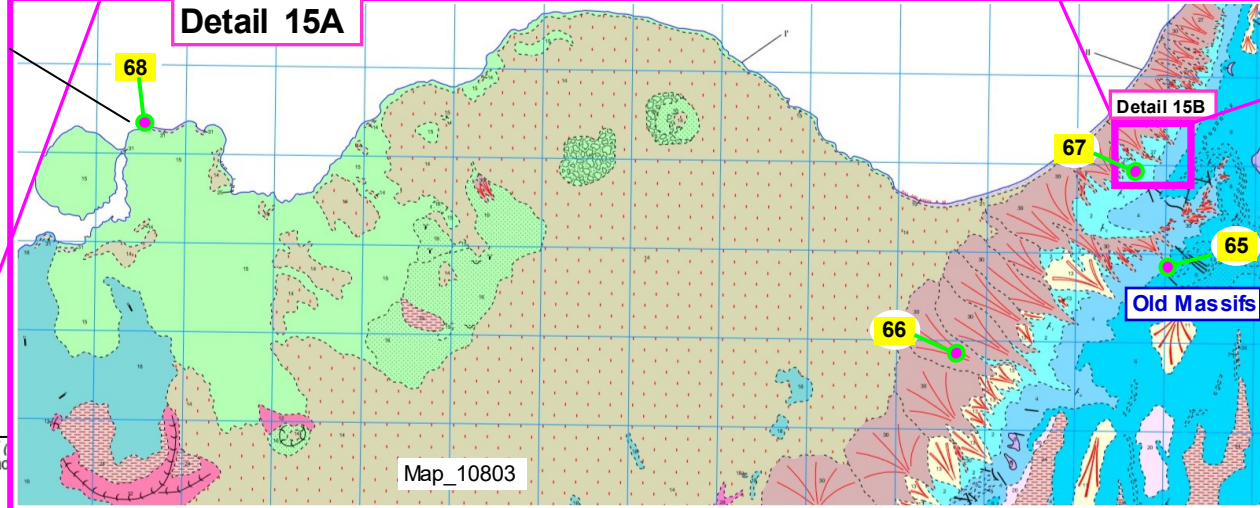


Detail 14A → Sample Site 61

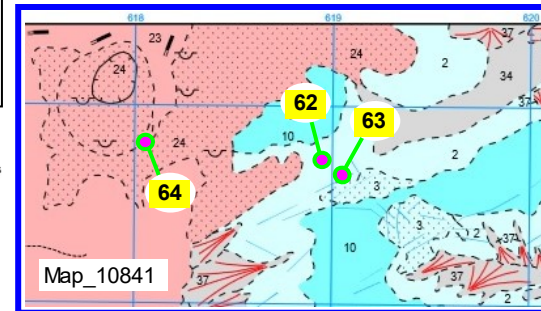


Rock type : 3 - Piroclastos basalticos

Detail 15A



Map_10803

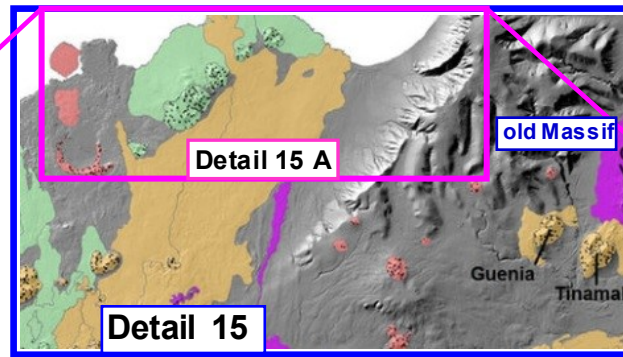


Map_10841

Sample Site 61



Detail 15 A



old Massif

Detail 15



**Detail 15A
Old Massif
Aerial view**

Sample Site 65



Detail 15B

→ sample site 67



Rock type: 2 & 3 – Coladas (Piroclastos) basalticos

Weblink Digital Geology-Map :

- 15 Coladas basálticas. Alineación volcánica de Soo
- 10 Piroclastos basálticos (lapillis, escorias y bombas)
- 9 Coladas basálticas
- 8 Intrusivos básicos (Tramo Superior)
- 7 Piroclastos basálticos (lapillis, escorias, bombas y piroclastos de dispersión (Tramo Superior)
- 6a Delgadas recubrimientos de lapillis sobre coladas basálticas en el Edificio Famara
- 6 Coladas basálticas (Tramo Superior)
- 5 Piroclastos basálticos (lapillis, escorias y bombas) (Tramo Medio)
- 4 Coladas basálticas (Tramo Medio)
- 3 Piroclastos basálticos (lapillis, escorias y bombas) (Tramo Inferior)
- 2 Coladas basálticas (Tramo Inferior)
- 1 Diques y "sills" básicos

Legend_10803 :

