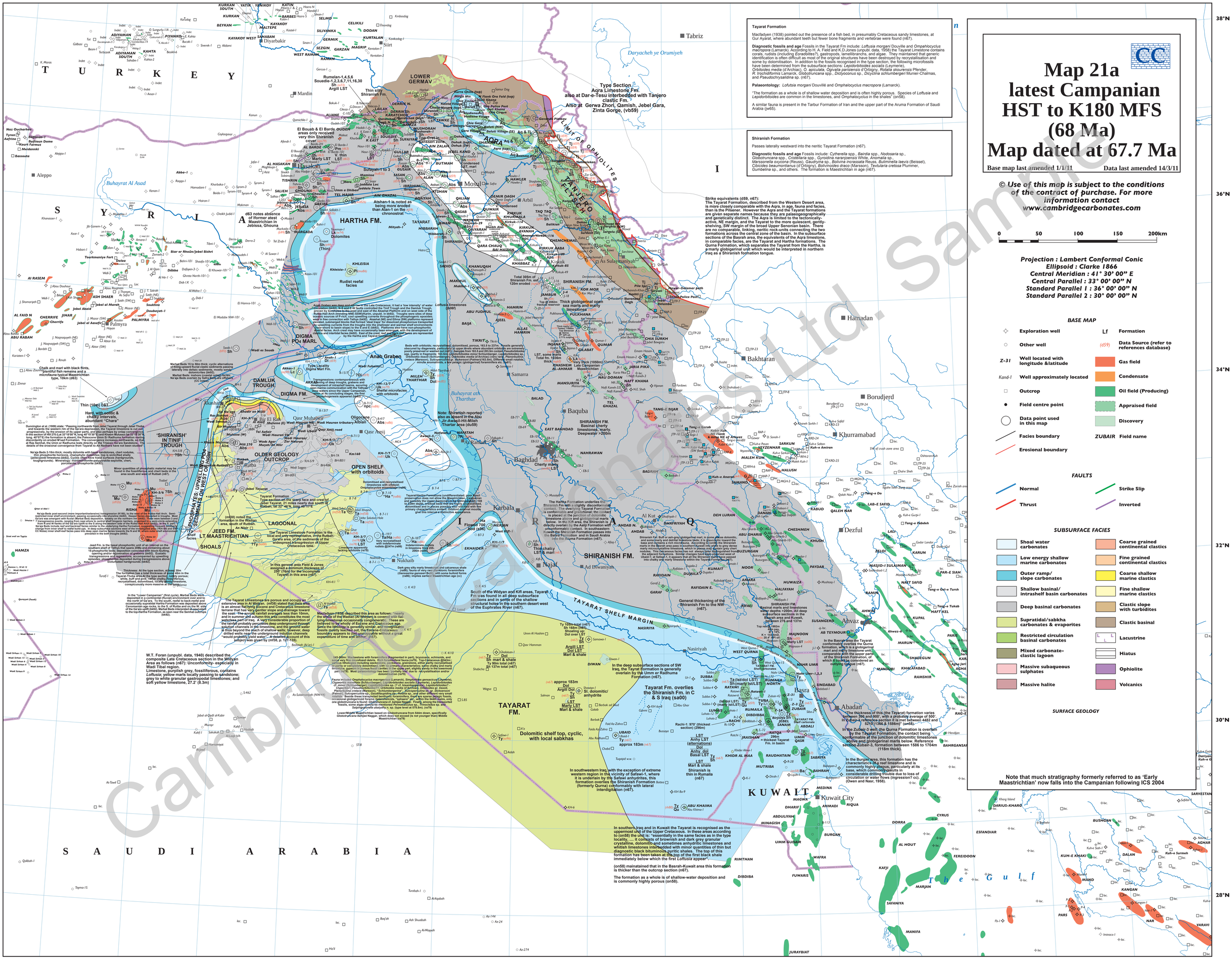

Tayarat Formation

Macfadyen (1938) pointed out the presence of a fish bed, in presumably Cretaceous sandy limestones, at Gur Ayarat, where abundant teeth but fewer bone fragments and vertebrae were found (n67).

Diagnostic fossils and age Fossils in the Tayarat Fm include: *Loftusia morgani* Douville and *Ompahlocyclus macropora* (Lamarck). According to H. A. Field and K.D.Jones (unpubl. data, 1958) the Tayarat Limestone contains corals, rudists (including *Eoradiolites*?), gastropods, lamellibranchs, and algae. They maintained that generic identification is often difficult as most of the original structures have been destroyed by recrystallisation and some by dolomitisation. In addition to the fossils recognised in the type section, the following microfossils have been determined from the subsurface sections: *Lepidorbitoides socialis* (Leymerie), *Orbitoides media* (d'Archiac), *O. apiculata*, *Ogivalia parisiensis* d'Orbigny, *Rotalia skourensis* Pfender, *R. trochiliformis* Lamarck, *Globotruncana* spp., *Dictyoconus* sp., *Dicyclina schlumbergeri* Munier-Chalmas, and *Pseudochrysalidina* sp. (n67).

Palaeontology: *Loftusia morgani* Douvillé and *Ompahlocyclus macropora* (Lamarck).

"The formation as a whole is of shallow water deposition and is often highly porous. Species of *Loftusia* and *Lepidorbitoides* are common in the limestones, and *Omphalocyclus* in the shales" (on58).

A similar fauna is present in the Tarbur Formation of Iran and the upper part of the Aruma Formation of Saudi Arabia (jw65).

Shiranish Formation

Passes laterally westward into the neritic Tayarat Formation (n67).

Diagnostic fossils and age Fossils include: *Cytherella* spp., *Bairdia* spp., *Nodosaria* sp., *Globotruncana* spp., *Cristellaria* spp., *Gyroidina naranjoensis* White, *Anomalia* sp., *Marssonella oxycona* (Reuss), *Gaudryina* sp., *Bolivina incrassata* Reuss, *Bulimimella laevis* (Beissel), *Cibicides beaumontianus* (d'Orbigny), *Bolivinoides draco* (Marsson), *Textularia cretosa* Plummer, *Gumbelina* sp., and others. The formation is Maestrichtian in age (n67).

Map 21a latest Campanian HST to K180 MFS (68 Ma) Map dated at 67.7 Ma

Base map last amended 1/1/11 Data last amended 14/3/11

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0 50 100 150 200km

Projection : Lambert Conformal Conic
Ellipsoid : Clarke 1866
Central Meridian : 41° 30' 00" E
Central Parallel : 33° 00' 00" N
Standard Parallel 1 : 36° 00' 00" N
Standard Parallel 2 : 30° 00' 00" N

BASE MAP

- Exploration well
- Other well
- Z-31 Well located with longitude &latitude
- Kand-1 Well approximately located
- Outcrop
- Field centre point
- Data point used in this map
- Facies boundary
- Erosional boundary
- Lf Formation
- (d59) Data Source (refer to references database)
- Gas field
- Condensate
- Oil field (Producing)
- Appraised field
- Discovery
- ZUBAIR Field name

FAULTS

- Normal
- Thrust
- Strike Slip
- Inverted

SUBSURFACE FACIES

- Shoal water carbonates
- Low energy shallow marine carbonates
- Outer ramp/ slope carbonates
- Shallow basinal/ intrashelf basin carbonates
- Deep basinal carbonates
- Supratidal/sabkha carbonates & evaporites
- Restricted circulation basinal carbonates
- Mixed carbonate-clastic lagoon
- Massive subaqueous sulphates
- Massive halite
- Coarse grained continental clastics
- Fine grained continental clastics
- Coarse shallow marine clastics
- Fine shallow marine clastics
- Clastic slope with turbidites
- Clastic basinal
- Lacustrine
- Hiatus
- Ophiolite
- Volcanics

SURFACE GEOLOGY

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