

## Facies and Depositional Environment of Serigakni Formation at Sinjar Structure – Northwest Iraq

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### ABSTRACT

The facies analysis of Serigakni Formation carbonates (Late Oligocene - Early Miocene), which has been studied across two surface sections (Bara and Jaddala) in Sinjar structure, showed that the succession is composed of the alternation of eight Globigerinal mud supported microfacies. This analysis revealed that the most Serigakni succession might be deposited in deep shelf margin zone and occasionally basin zone. Although, since the beginning of it's middle unit at Bara section and upper unit at Jaddala section, the succession affected by abrupt intermittent low density turbidity current.

### INTRODUCTION

(Maala, 1977; Abdul karim, 1978)

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(Back slope)

( )

( - )

(Buday, 1980; Buday and Jassim, 1987)

(Bellen, 1955 in Bellen *et al.*, 1959)

(1- )

(Bellen, 1955 in Bellen *et al.*, 1959)

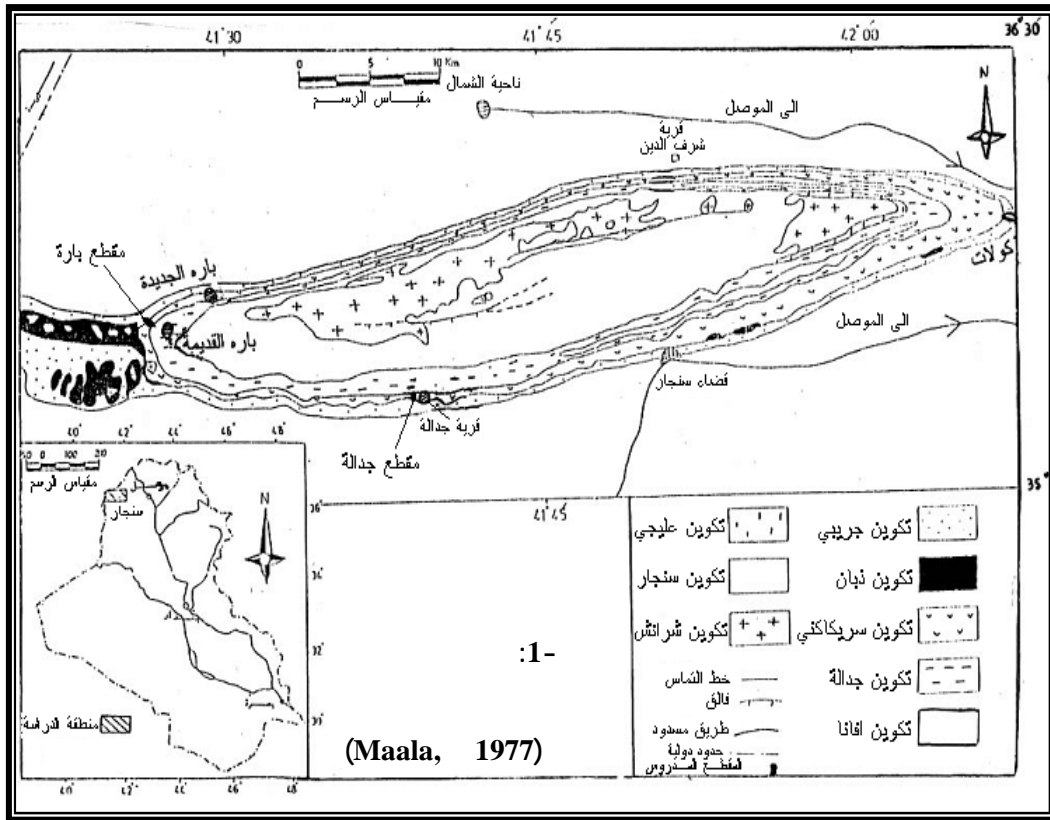
### STRATIGRAPHY

(Buday, 1980)

( )

( - )

(Lithoclastic)



(Extraclastic)

(Marker bed)

(Maala, 1977)

( 160)

**PETROGRAPHY**

(Hematite)

(Carson, 1997)

(Allochems)

(Lithoclastic)

(Planktonic Foraminifera)

(*Globigerina*)

(0.2-0.1)

(0.5)

- )

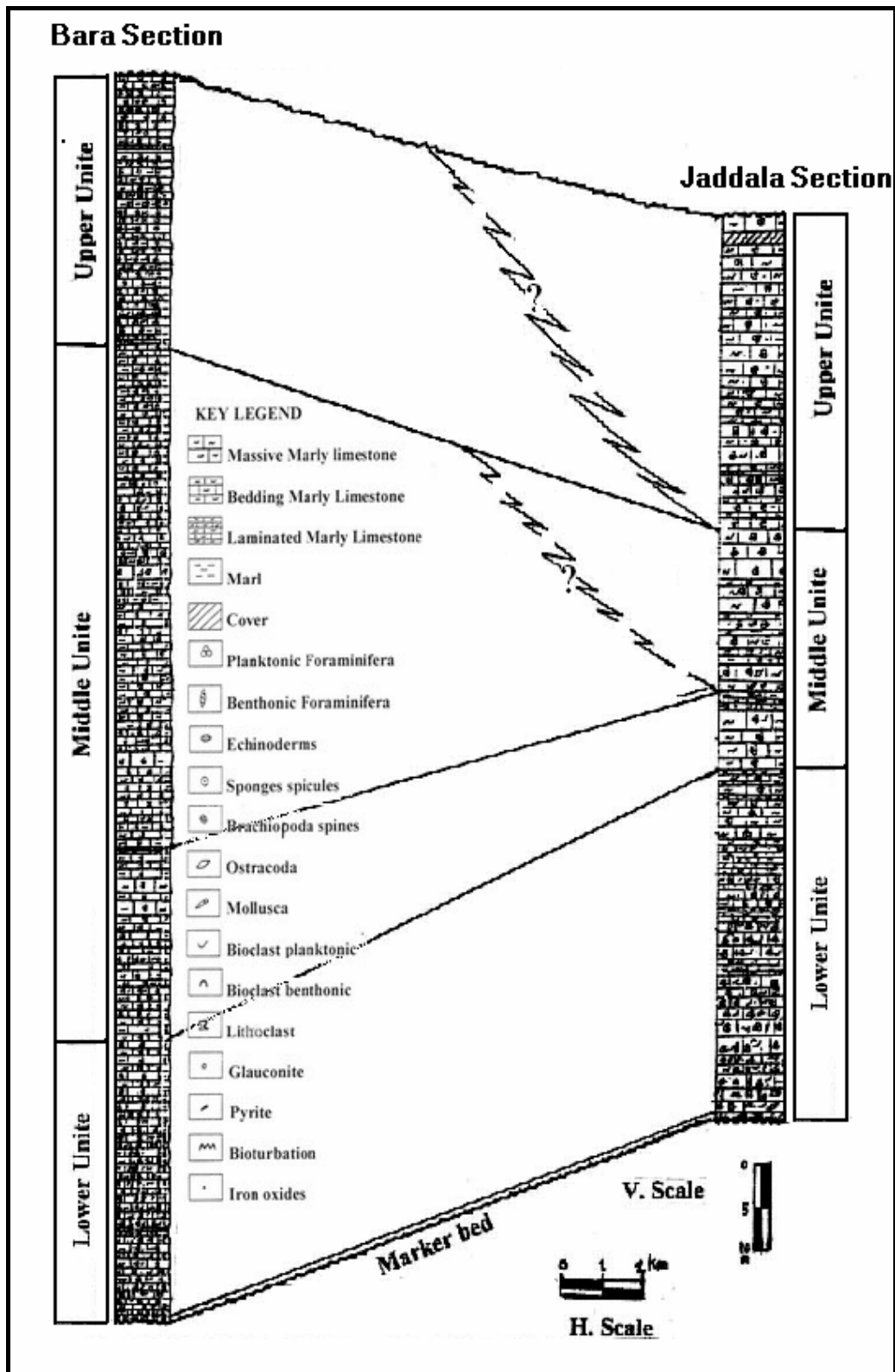
(*Globigerinoid*)

(*Globorotalia*) (*Dentoglobigerina*)

(5 1

(Bentonic)

(*Catapsydrax*)



: 2 -

(Echinoderms)

(2 - )

(Mollusca)

(6 - ) (Ostracoda)

(4 - )

(Sponge)

(Bioclasts)

(Brachiopods)

**FACIES ANALYSIS**

:

**Planktonic foraminiferal lime mudstone Microfacies:**

(% 10)

(1- )

(*Globigerina*)

(Wilson, 1975)

(SMF-3)

(Flügel, 1982)

(Deep Shelf Margin)

(Basin)

**Lime Wackestone Facies:**

:

(*Globigerina*)

(% 40-30)

(%10)

(*Globigerina*)

(% (Benthonic)

(% 8-5)

(% 10-7)

2)

(2- )

(SMF-8)

(Open Sea Shelf)

(3- )

(Basin) :

(SMF-3)

(Deep Shelf Margin)

(4- )

(% 15)

(SMF-1)

(5- )

(SMF-3)

**Lime Packstone Facies:**

:

(% 60)

(SMF-3)

(%45)

(%55)

(%5)

(%10)

.(6- )

(%7) (%35) (%42)  
(%10)

.(7- )

*(Globigerina Globorotalia,*

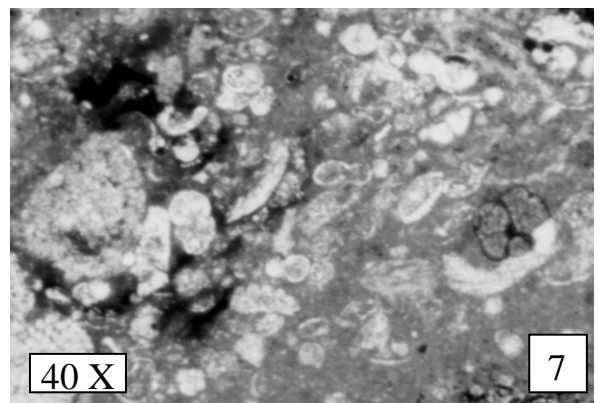
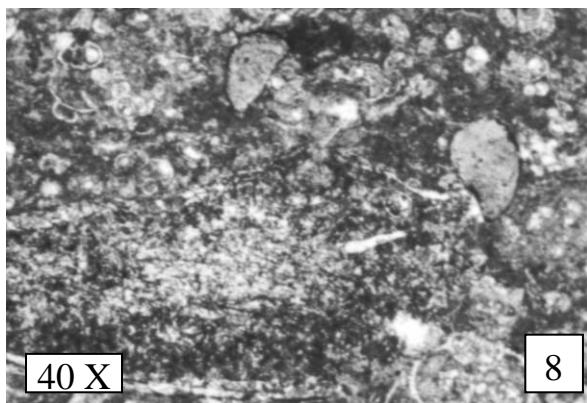
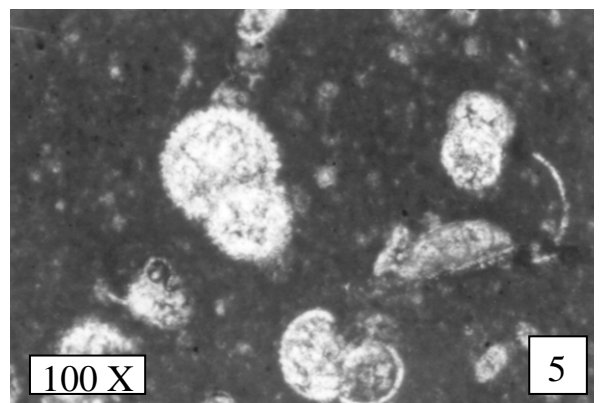
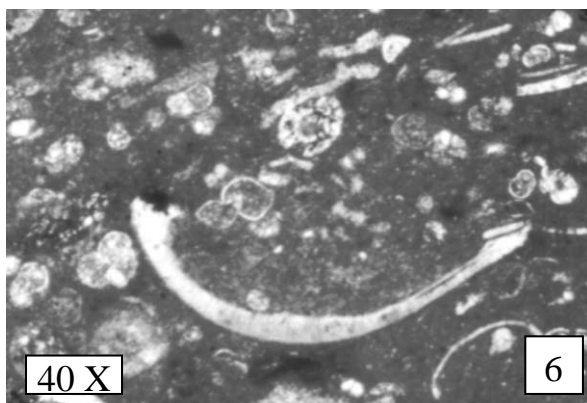
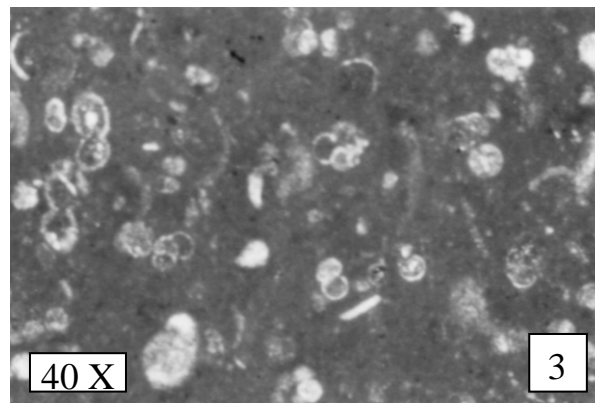
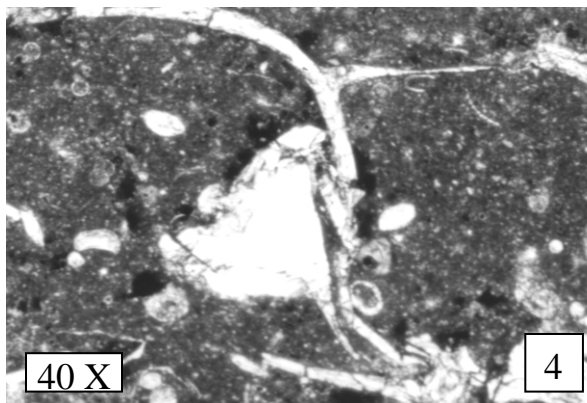
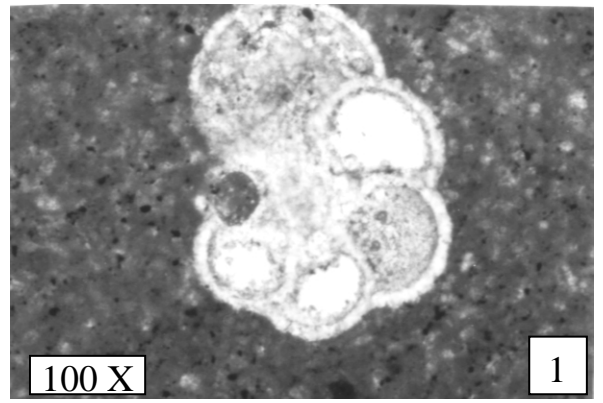
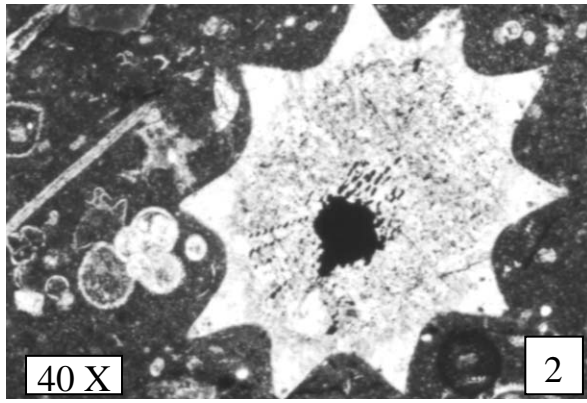
*Globigerinoides)*

(%35)

(%3) (%25)

.(8- )

**DEPOSITIONAL ENVIRONMENT**



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(Smith, (Basin) (Deep Shelf Margin)  
1955; Bandy, 1964; Li and Mc Gowran, 1994)

( )

(Dix and Mulines, 1987)

(Fursich and Wehdt, 1976)

(200)

## DISCUSSION

(Li *et al.*, 2000)

(Suspension)

(Reading,

(0.1)

1978)

(Lisitzin, 1972)

(Eriksson and

Reczko, 1998)

## CONCLUSIONS

(160)

(95)

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