Early Cretaceous (Neocomian-Cenomanian) Palynomorphs

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INTRODUCTION
This study is primarily concerned with the Neocomian to Aptian palynomorphs recorded in selected exploration wells (See Fig. 9). In order to document a complete Early Cretaceous microfloral succession in the studied wells, a reconnaissance of Aptian to Early Cenomanian palynomorphs was also undertaken. Details of the results from this younger interval appear in a later section.

Palynomorph assemblages vary in preservation and character. To the north, sandstone, siltstone and shale deposited in shallow-marine environments, contain well-preserved assemblages of dinoflagellate cysts, pollen and spores which can be used for stage-level age determination. A majority of the samples analysed, however, contain moderate numbers of dinoflagellate cysts, but fewer miospores. The abundance of land derived detritus indicates the relatively close proximity of the shoreline. In the central and southern parts of the study area, sandstone and siltstone that are deposited in non-marine, fluvial, lacustrine or lagoonal environments show a general paucity of well-preserved palynofloras. Miospores of stratigraphic value are generally rare or absent although the majority of the samples are dominated by land derived detritus.

PALYNOMORPH SUCCESSION
The majority of the wells from northern Cyrenaica show a hiatus at the Jurassic Cretaceous boundary. Late Neocomian or Aptian sediments occur immediately above Middle or early Late Jurassic sediments. Well preserved Neocomian palynomorphs were recorded in wells A1-36, B1-36, Bla-18 and A1-45. The stratigraphical ranges of palynomorphs presented on the plate explanations are local ranges and are based on the studied intervals only. A preliminary palynological zonation of Late Jurassic (Late Kimmeridgian) to Late Cretaceous (Cenomanian) is presented in Fig. 9. This zonation is based on samples dated independently on microfaunal assemblages. Further refinement of this zonation is currently in progress.

Neocomian palynomorph assemblages are moderately diverse in composition containing both dinoflagellate cysts and miospores. The dinoflagellate cysts Muderongia simplex, M. staurota, Phoberocysta neocomaica and several species of Canningia and Cyclonephelium make their first appearance during this interval. Miospores do not dominate the assemblages although there are large quantities of terrestrial palynodebris in the majority of the samples studied. Bisaccate pollen are generally absent. Rare but consistently present miospores include Trilobosphorites cf. bernissartensis, Matonisporites crassiangulatus, Equirriradites spinulosus, Crybelosporites cf. striatus (similar to C. striatus but larger in size), and several species of Pilosisporites, Concavi-sporites, Classopollis, Concavissimisporites, Cicatricosisporites and inaperturate pollen (Araucariaeites, Inaperturopollenites). Callialasporites and Exesipollenites occur sporadically. Microfloral subdivision within the Neocomian must await the completion of the study of additional samples.

Late Neocomian to Barremian palynomorphs are well-preserved but occur only in small numbers. The dinoflagellate cysts Aptea anaphrissa, Gardodium eisenacki, Coronifera oceanica and several species of Oligosphaeridiun, in association with the miospores Dicheiropollis etruscus, Stellatopollis cf. barghoornii. Appendicisporites spp., Retimonoecolpites spp. and "Inaperturopollenites" crisopolensis show their earliest appearance in this interval. Some species from the Early Neocomian continue as infrequent or rare components, these include Pareodinia ceratophora, Prolixosphaeridium granulosum, Canningia spp., Cyclonephelium spp., Cicatricosisporites spp., Crybelosporites cf. striatus, Concavissimisporites spp., Classopollis spp., and inaperturate pollen.

Aptian dinoflagellate cyst assemblages contain abundant representatives of Subtilisphaera senegalensis and Subtilisphaera sp. together with rare Pseudoceratucium regium and Cribroperidinium edwardsii. Miospores from this interval contain the first appearance of Afropollis spp., Reyrea polymorpha, Retitricolpites spp., Psilatricolpites spp. and Eucomiidites spp. Classopollis is represented by abundant species of less than 30 microns. A number of species which disappear during this interval including "Inaperturopollenites" crisopolensis, Stellatopollis cf. barghoornii, Callialasporites spp., and Appendicisporites spp. Ephedripites spp., present in the Neocomian is more frequently encountered during the late Early Cretaceous. Inaperturate pollen, Crybelosporites, Cicatricosisporites, Concavissimisporites and Pilosisporites continue as infrequent members of the assemblages.

Albian-Cenomanian palynomorph assemblages contain a number of distinctive dinoflagellate cysts including Xenascus ceratioides, Cyclonephelium vanno-
phorum and Florentina spp. Miospore assemblages from this interval are distinguished by the earliest appearance during the Albian of Elaterosporites klaszii and Elaterocolpites castelainii together with Sorepites legouxae, tricolporate and triporate angiosperm pollen. Species of Classopolis less than 30 microns are replaced by larger forms of which C. brasiliensis is a good stratigraphic marker. Species of Afropollis and of the Elaterosporites group disappear in the Early Cenomanian but Cicatricosisporites, Crybelosporites, Retimonocolpites, Tricolpites and inaperturate pollen continue to occur.

SARIR (NUBIAN) SANDSTONE

Sediments from within this unit, in the central and southern parts of the project area, where it was deposited in fluvial, lacustrine or lagoonal environments show a general paucity of well preserved palynomorphs. Miospores of stratigraphical value are generally rare. Taxa frequently present include Cerebropollenites mesozoicus, Concavisporites spp., Classopolis spp., Araucariacites sp. and rarely Alisporites sp. These miospores are not age diagnostic but suggest a Late Jurassic-Early Cretaceous age for the Sarir or Nubian sandstone. Samples from a limited number of wells have yielded microfloras which can be dated confidently as Neocomian-Barremian, by the presence of Dicheiropollis etruscus, Trilobosporites sp. and Cupressacites oxycedroides. In one well, the rare occurrence of Psilatricolporites sp. and Stellatopollis barghoornii indicates an Aptian-Albian age.

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Urban, L. L., Moore, L. V. & Allen, M. L. 1976. Palynology, thermal alteration and source rock potential of three wells from Alain area, Western Desert, Egypt. Fifth EGCP Exploration Seminar, November 1976, 32 pp.
### Fig. 9. Preliminary biostratigraphic succession of Late Jurassic (Late Kimmeridgian) to Late Cretaceous (Cenomanian) in North East Libya

| AGE               | OTHER PALynomorphs | KEY MICROFAUNA | KEY DINOCYSTS | OTHER PALynomorphs |
|-------------------|---------------------|----------------|---------------|---------------------|
| CENOMANIAN        |                     | Thomasinella punica | Cunningia baculata |                      |
| ALBIAN            | Triporate angiosperms | Hedbergella delrioensis | Subtilisphaera |                      |
|                   | Tricolporate angiosperms | Cytherella | Subtilisphaera sp. A |                      |
|                   | Cypridea           | Choffatella decipens | Subtilisphaera sp. A |                      |
|                   |                    |                | Subtilisphaera sp. A |                      |
|                   |                    |                |                |                      |
| APTIAN            |                     | Cytherella     | Phoberocysta neocomica |                      |
|                   |                    |                |                |                      |
| BARREMIAN         |                     | Choffatella decipens | Muderongia staurota |                      |
|                   |                    |                |                |                      |
| HAUTERIVIAN       |                     |                |                |                      |
| VALANGINIAN       |                     |                |                |                      |
| BERRIASIAN        |                     |                |                |                      |
| TITONIAN          |                     |                |                |                      |
| LATE KIMMERIDGIAN |                     |                |                |                      |

**KEY MICROFAUNA**
- Thomasinella punica
- Hedbergella delrioensis
- Cytherella
- Choffatella
- Cypridea
- Aptea anaphrissa

**KEY DINOCYSTS**
- Cunningia baculata
- Subtilisphaera
- Xenascus ceratoides
- Subtilisphaera sp. A
- S. senegalensis
- Phoberocysta neocomica
- Muderongia staurota

**KEY PALynomorphs**
- Classopollis brasiliensis
- Elaterosporites group
- Elaterosporites
- Classopollis < 30 µ
- Afropollis
- Tricolporate angiosperms
- Appecia polyomorpha
- Retimonocolpites
- Dichotomosphaera<br> Diceratioides<br> Retimonocolpites<br> Muderongia<br> Muderongia simplex<br> Millioudodinium<br> Gardodinium eisenackii<br> Retimonocolpites<br> Diceratops<br> Muderongia granulosum<br> Muderongia sp. A<br> Conopollis<br> Ctenidodinium<br> Lithodinia jurassica<br> Malayosphaeridium

**OTHER PALynomorphs**
- Calpionella alpina<br> Calpionella elliptica<br> Tricholina alpina<br> Pseudocy clammina jaccardi<br> Ctenidodinium<br> Lithodinia jurassica<br> Malayosphaeridium
Explanation of Plate 53
All figures are × 500

Figs. 1, 3. *Canningia reticulata* Cookson & Eisenack, 1960 emend. Below 1981. 1. A1-45, 12100-12250ft., Slide 3, R44/0, AGC 586. 3. A1-NC92, 5880-5890ft., Slide 3, N44/0, AGC 587. (Neocomian-Albian).

Fig. 2. *Cyclonephelium distinctum* Deflandre & Cookson, 1955. A1-36, 10607-10617ft., Slide 1, L31/0, AGC 588. (Neocomian-Albian).

Fig. 4. *Muderongia simplex* Alberti, 1961. B1-36, 10915-11010ft., Slide 2, M29/2, AGC 589. (Early Neocomian).

Figs. 5, 6. *Phoberocysta neocomica* subsp. *neocomica* (Gocht, 1957) Millioud, 1969. 5. B1-36, 10734-10738ft., Slide 2, R43/3, AGC 590. 6. A1-36, 10607-10617ft., Slide 3, N45/1, AGC 591. (Neocomian).

Figs. 7, 8. *Muderongia* cf. *staurota* Sarjeant, 1966. 7. A1-45, 9710-9900ft., Slide 3, N40/0, AGC 592. 8. A1-45, 10110-10300ft., Slide 2, N38/4, AGC 593. (Neocomian).

Fig. 9. *Florentinia* sp. A. A1-45, 10110-10300ft., Slide 2, Q28/0, AGC 594. (Neocomian).

Fig. 10. *Phoberocysta neocomica* subsp. *circulata* (Gocht, 1957) Lentin & Williams, 1973. R3-82, 3658m., Slide 1, L41/1, AGC 595. (Neocomian).

Fig. 11. *Odontochitina operculata* (Wetzel, 1933), Deflandre & Cookson, 1955. A1-45, 9710-9900ft., Slide 3, J33/0, AGC 596. (Neocomian).
Explanan of Plate 54
All figures are $\times 500$

Fig. 1. *Concavisporites jurienensis* Balme, 1957. A1-36, 7870-7880ft., Slide 2, Y39/1, AGC 597. (Neocomian-Albian).

Fig. 2. *Matonisporites crassiangularus* (Balme, 1957) Dettmann, 1963. Bla-18, 7900-8000ft., Slide 4, N44/3, AGC 598. (Neocomian).

Fig. 2. *Concavissimisporites* cf. *variverrucatus* (Couper, 1958) Brenner, 1963. GGG1-59, Core 11, 11382ft., Slide 2B, F49/0, AGC 599. (Neocomian).

Fig. 4. *Concavissimesporites punctatus* (Delcourt & Sprumont, 1955) Brenner, 1963. A1-36, 7014-7066ft., Slide 2, F34/1, AGC 600. (Neocomian-Albian).

Fig. 5. *Concavisporites* sp. A1-NC92, 6630-6640ft., Slide 3, Y32/4-K32/3, AGC 601. (Neocomian-Cenomanian).

Fig. 6. *Trilobosporites* cf. *berrissartensis* (Delcourt & Sprumont, 1955) Potonié, 1956. Bla-18, 8500-8600ft., Slide 4, U35/4, AGC 602. (Neocomian).

Fig. 7. *Crybelosporites* cf. *striatus* Dettmann, 1963. Bla-18, 5600-5700ft., Slide 4, U29/1-T29/3, AGC 603. (Neocomian-Early Cenomanian).

Fig. 8. *Impardecispora apiverrucata* (Couper, 1958) Venkatachala et al, 1968. Bla-18, 6900-7000ft., P40/4-41/3, AGC 604. (Neocomian).
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Neocomian Miospores

Plate 54

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Explanation of Plate 55
All figures are × 500

Fig. 1. *Cicatricosisporites* sp. A. Bla-18, 8240-8300 ft., Slide 4, N36/4, AGC 605. (Neocomian).

Fig. 2. *Tigrisporites* cf. *reticulatus* Singh, 1971. B1-36, 10610-10710 ft., Slide 3, K34/0, AGC 606. (Neocomian).

Fig. 3. Genus and species indet. 1. B1a-18, 3900-4000 ft., Slide 4, Q26/1, AGC 607. (Neocomian).

Fig. 4. Gen. and spec. indet. 2. A1-36, Core 10, 10607-10617 ft., Slide 1 unox., U27/3, AGC 608. (Neocomian- Barremian).

Fig. 5. *Pilosisporites* sp. 2 sensu Bebout, 1981. B1a-18, 8240-8300 ft., Slide 4, T28/1, AGC 609. (Neocomian- Barremian).

Fig. 6. *Inaperturopollenies* sp. B1a-18, 3700-3800 ft., Slide 4, Y46/1, AGC 610. (Neocomian-Cenomanian).

Fig. 7. *Cicatricosisporites* sp. B. B1a-18, 3700-3800 ft., Slide 4, N39/2, AGC 611. (Neocomian-Aptian).

Fig. 8. *Aequitriradites spinulosus* (Cookson & Dettman, 1958) Cookson & Dettman, 1961. B1a-18, 7400-7500 ft., Slide 4, L35/0-35/4, AGC 612. (Neocomian-Barremian).

Fig. 9. *Verrucosisporites* sp. B1-36, Core 24, 11173-11181 ft., Slide 2, K45/3, AGC 613. (Neocomian).

Fig. 10. *Contignisporites* sp. B1a-18, 4700-4800 ft., Slide 4, Y25/0, AGC 614. (Neocomian).

Fig. 11. *Araucarioctes australis* Cookson, 1947 ex Couper, 1953. B1a-18, 5400-5500 ft., Slide 4, V37/4, AGC 615. (Neocomian-Cenomanian).
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Neocomian Miospores

Plate 55
Explanation of Plate 56
All figures are ×500

Fig. 1. Cyclonephelium distinctum Deflandre & Cookson, 1955. A1-45, 10510-10700 ft., Slide 3, V32/1, AGC 616. (Neocomian-Albian).

Fig. 2. Spiniferites ramosus (Ehrenberg, 1938) Loeblich & Loeblich, 1966. R3-82, 3658 m., Slide 1, Q32/0, AGC 617. (Neocomian-Albian).

Fig. 3. Cyclonephelium vannophorum Davey, 1969. A1-45, 9710-9900 ft., Slide 3, H47/2, AGC 618. (Neocomian-Cenomanian).

Fig. 4. Hystrichodinium furcatum Alberti, 1961. A1-45, 9710-9900 ft., Slide 2, N41/1, AGC 619. (Late Neocomian-Barremian).

Figs. 5, 10. Oligosphaeridium perforatum (Gocht, 1959) Davey & Williams, 1969. 5. R3-82, 4415 m., Slide 1, S43/4, AGC 620. 10. R3-82, 3784 m., Slide 1, U32/1, AGC 621. (Late Neocomian-Albian).

Fig. 6. Glabridinium apatelum (Cookson & Eisenack, 1960) Brideaux, 1977. A1-36, 10607-10617 ft., Slide 1, J28/4, AGC 622. (Neocomian-Barremian).

Fig. 7. Coronifera oceanica Cookson & Eisenack, 1958, emend. May, 1980. A1-NC 92, 6200-6210 ft., Slide 4, S37/2, AGC 623. (Late Neocomian-Albian).

Figs. 8, 11. Oligosphaeridium complex (White, 1842) Davey & Williams, 1966. 8. A1-45, 10920-11100 ft., Slide 2, T33/1, AGC 624. 11. A1-45, 9710-9900 ft., Slide 3, O39/1, AGC 625. (Late Neocomian-Albian).

Fig. 9. Gardodinium eisenackii Alberti, 1961. B1-36, 10734-10738 ft., Slide 3, E34/0, AGC 626. (Late Neocomian-Barremian).

Fig. 12. Aptea anaphrissa (Sarjeant, 1966), Benedek, 1972. A1-NC 92, 6100-6110 ft., Slide 5, P26/0, AGC 627. (Barremian).
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Late Neocomian-Barremian Dinoflagellate Cysts
Explanation of Plate 57
All figures are × 500

Figs. 1, 3. *Dicheiropollis etruscus* Trevisian, 1972. 1. GGG1-59, Core 11, 11382 ft., Slide 4, H25/0, AGC 628. 3. GGG1-59, Core 11, 11382 ft., Slide 4, F27/0, AGC 629. (Late Neocomian-Barremian).

Fig. 2. *Cycadoptites* sp. A1-36, Core 10, 10607-10617 ft., Slide 1 unox., N30/0, AGC 630. (Neocomian-Cenomanian).

Figs. 4, 7. *Sfeffufopollis* cf. *barghoornii* Doyle in Doyle *et al.*, 1976. 4. proximal side, 7. distal side, L1-82, 3695-3707 ft., Slide 4, Q35/3, AGC 631. (Barremian-Aptian).

Figs. 5, 9. *Chomotrilites minor* (Kedves, 1961), Pocock, 1970. 5. B1-36, Core 22, 10734-10738 ft., Slide 3, R26/4-27/3 – S26/2-27/1, AGC 632. 9. B1-36, 10610-10710 ft., Slide 2, O40/0, AGC 633. (Neocomian-Albian).

Fig. 6. "*Inaperturopollenites*" *crisopolensis* Regali *et al.*, 1975. G1-2, 7170-7210 ft., Slide 2, O30/0, AGC 634. (Late Barremian-Aptian).

Fig. 8. *Retimonocolpites* sp. A. A1-NC92, 6200-6210 ft., Slide 4, M26/0, AGC 635. (Barremian-Cenomanian).

Fig. 10. *Appendicisporites* cf. *potomacensis* Brenner, 1963. B1a-18, 4700-4800 ft., Slide 4, O45/1, AGC 636. (Barremian-Aptian).

Fig. 11. *Retimonocolpites* sp. B. R3-82, 4209 m., Slide 1, W35/3, AGC 637. (Barremian-Cenomanian).

Fig. 12. *Appendicisporites* sp. cf. *A. bifurcatus* Singh, 1964. R3-82, 4118 m., Slide 1, N25/2, AGC 638. (Barremian-Aptian).
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Late Neocomian-Barremian Miospores

Plate 57

1 2 3
4 5 6
7 8 9
10 11 12
Explanation of Plate 58
All figures are $\times 500$

Figs. 1, 2. *Subtilisphaera pirnaensis* (Alberti, 1959) Jain & Millepied, 1973. 1. A1-45, 10510-10700ft., Slide 3, U28/2, AGC 639. 2. A1-45, 12100-12250ft., Slide 3, N38/3, AGC 640. (Aptian-Albian).

Fig. 3. *Millioudodinium episomum* (Sarjeant, 1966) Stover & Evitt, 1978. A1-45, 11110-11300ft., Slide 3, M47/1, AGC 641. (Aptian).

Fig. 4. *Subtilisphaera senegalensis* Jain & Millepied, 1973. A1-45, 10110-10300ft., Slide 2, N34/0, AGC 642. (Aptian-Albian).

Fig. 5. *Spiniferites ramosus* (Ehrenberg, 1938) Loeblich & Loeblich, 1966. A1-45, 12100-12250ft., Slide 3, O30/0, AGC 643. (Neocomian-Albian).

Fig. 6. *Cribroperidinium cf. edwardsii* (Cookson & Eisenack, 1958) Davey, 1969. B1a-18, 4400-4500ft., Slide 4, K40/1, AGC 644. (Aptian-Albian).

Fig. 7. *?Lagenorhytis* sp. A. A1-NC 92, 6640-6650ft., Slide 6, K36/3, AGC 645. (? Aptian).

Figs. 8, 9. *Cribroperidinium edwardsii* (Cookson & Eisenack, 1958) Davey, 1969. 8. A1-36, 7870-7880ft., Slide 4, N34/0, AGC 646. 9. A1-45, 9910-10100ft., Slide 2, U40/2, AGC 647. (Aptian-Albian).

Fig. 10. *Pseudoceratium regium* Singh, 1971. A1-45, 12100-12250ft., Slide 3, K26/4, AGC 648. (Aptian).

Fig. 11. *Cribroperidinium* sp. A. A1-36, 7870-7880ft., Slide 3, K38/1, AGC 649. (Aptian-Albian).
Explanation of Plate 59
All figures are × 500

Fig. 1. *Retricolpites vulgaris* Pierce, 1961. A1-NC 92, 6200-6210 ft., Slide 4, P34/4, AGC 650. (Aptian-Cenomanian).

Fig. 2. *Psilatricolpites* sp. A1-NC 92, 6200-6210 ft., Slide 4, S35/0, AGC 651. (Aptian-Cenomanian).

Fig. 3. *Eucomiidites* sp. A1-NC 92, 6200-6210 ft., Slide 4, M26/0, AGC 652. (Barremian-Cenomanian).

Fig. 4. *Ephedripites* sp. A. A1-NC 92, 6200-6210 ft., Slide 4, W23/3, AGC 653. (Barremian-Cenomanian).

Figs. 5, 6. *Afropollis* sp. 5. A1-NC 92, 6200-6210 ft., Slide 4, Y23/3, AGC 654. 6. A1-NC 92, 6200-6210 ft., Slide 4, X25/3, AGC 655. (Aptian-earliest Cenomanian).

Fig. 7. *Classopollis* sp. (30 µ) A1-28, 7613 ft., Slide 2, P33/3, AGC 656. (Aptian-Albian).

Figs. 8, 11. *Callialasporites dampieri* (Balme, 1957) Sukh Dev, 1961. 8. A1-NC 92, 6630-6640 ft., Slide 3, T37/3, AGC 657. 11. B1a-18, 7300-7400 ft., Slide 4, T45/0, AGC 658. (Neocomian-Aptian).

Fig. 9. cf. *Trilites* sp. A1-36, Core 8, 9600-9611 ft., Slide 1 unox., Y30/0, AGC 659. (Aptian-Albian).

Fig. 10. *Reyrea polymorpha* Herngreen, 1973. A1-36, 7870-7880 ft., Slide 4, V35/2, AGC 660. (Aptian-Albian).

Fig. 12. *Ephedripites* sp. B. A1-NC 92, 6200-6210 ft., Slide 4, X32/3-Y32/1, AGC 661. (Aptian-Albian).

Fig. 13. *Callialasporites trilobatus* (Balme, 1957) Sukh Dev, 1961. A1-NC 92, 6700-6710 ft., Slide 4, T36/2, AGC 662. (Neocomian-Aptian).
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Aptian Miospores

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Explanation of Plate 60
All figures are ×500

Fig. 1. *Tricolpites* sp. A. A1-NC 92, 6200-6210ft., Slide 4, V30/3-W30/1, AGC 663. (Albian-Cenomanian).

Figs. 2, 3. cf. *Nyssapollenites* sp. 2. A1-NC 92, 6200-6210ft., Slide 4, N34/0, AGC 664. 3. A1-NC 92, 6200-6210ft., Slide 4, F29/0, AGC 665. (Albian-Cenomanian).

Fig. 4. *Classopolis brasiliensis* Herngreen, 1975. A1-35, 10300-10348ft., Slide 1, G34/1, AGC 666. (Cenomanian).

Fig. 5. *Elaterocolpites castelaini* Jardiné & Magloire, 1965. G1-2, 7170-7210ft., Slide 2, G34/0-34/3, AGC 667. (Albian).

Fig. 6. *Valensiella ovula* (Deflandre, 1947) Eisenack, 1963. R3-82, 3416m., Slide 1, V32/0, AGC 668. (Albian-Cenomanian).

Fig. 7. *Elaterosporites klazii* (Jardiné & Magloire, 1965) Jardiné, 1967. G1-2, 7170-7210ft., Slide 2, U26/0, AGC 669. (Albian).

Fig. 8. *Xenascus ceratioides* (Deflandre, 1937) Lentin & Williams, 1973. B1-36, 10734-10738ft., Slide 3, U36/4, AGC 670. (Albian-Cenomanian).

Fig. 9. *Pilosisporites trichopapillosus* (Thiergart, 1949) Delcourt & Sprumont, 1955. B1a-18, 6100-6200ft., Slide 4, T32/0, AGC 671. (Neocomian-Albian).

Fig. 10. *Cyclonephelium vannophorum* Davey, 1969. A1-NC 92, 6300-6310ft., Slide 5, L27/3, AGC 672. (Neocomian-Cenomanian).

Fig. 11. *Sofrepites legouxae* Jardiné, 1967. (Contamination? Drilling Mud?) B1-36, Core 22, 10734-10738ft., Slide 2, U26/0, AGC 673. (Albian).

Fig. 12. *Coronifera* cf. *oceanica* Cookson & Eisenack, 1958. E1-2, 5100-5200ft., Slide 5, V43/3, AGC 674. (Late Neocomian-Albian).
