

**SUMMARY OF THE RECOMMENDATIONS OF THE COMMISSION ON THE  
LIMITS OF THE CONTINENTAL SHELF (CLCS) IN REGARD TO THE PARTIAL  
SUBMISSION MADE BY IRELAND ON 25 MAY 2005<sup>1</sup>**

Recommendations adopted by the CLCS on 5 April 2007

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<sup>1</sup> The aim of this summary is to provide information which is not of confidential or proprietary nature in order to facilitate the function of the Secretary-General in accordance with CLCS/40/Rev. 1, Annex III, Part V, Rule 11.3. The summary is based on excerpts of the Recommendations and should be made public together with Table 3 of these Recommendations. The only additional material included herein are some figure captions that have been inserted to aid clarity.

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## ***I. INTRODUCTION***

1. Ireland made a Submission to the Commission on the Limits of the Continental Shelf (hereinafter “the Commission”), through the Secretary-General of the United Nations (hereinafter “the Secretary-General”), on 25 May 2005. This Submission was made pursuant to the provisions contained in article 76, paragraph 8, and Article 4 of Annex II to the 1982 United Nations Convention on the Law of the Sea (hereinafter “the Convention”).
2. The Commission received, through the Secretary-General, two notes verbales containing comments from other States regarding the data reflected in the executive summary of the partial Submission made by Ireland, including all charts and coordinates as made public by the Secretary-General in accordance with rule 50 of the rules of procedure of the Commission (hereinafter “the rules of procedure” – CLCS/40). The two notes verbales were sent, respectively, by Denmark on 19 August 2005 and Iceland on 24 August 2005. These notes were examined and the contents noted by the Commission, as appropriate. Both States indicated that the Submission made by Ireland and any recommendations by the Commission are without prejudice to any future Submissions made by them.

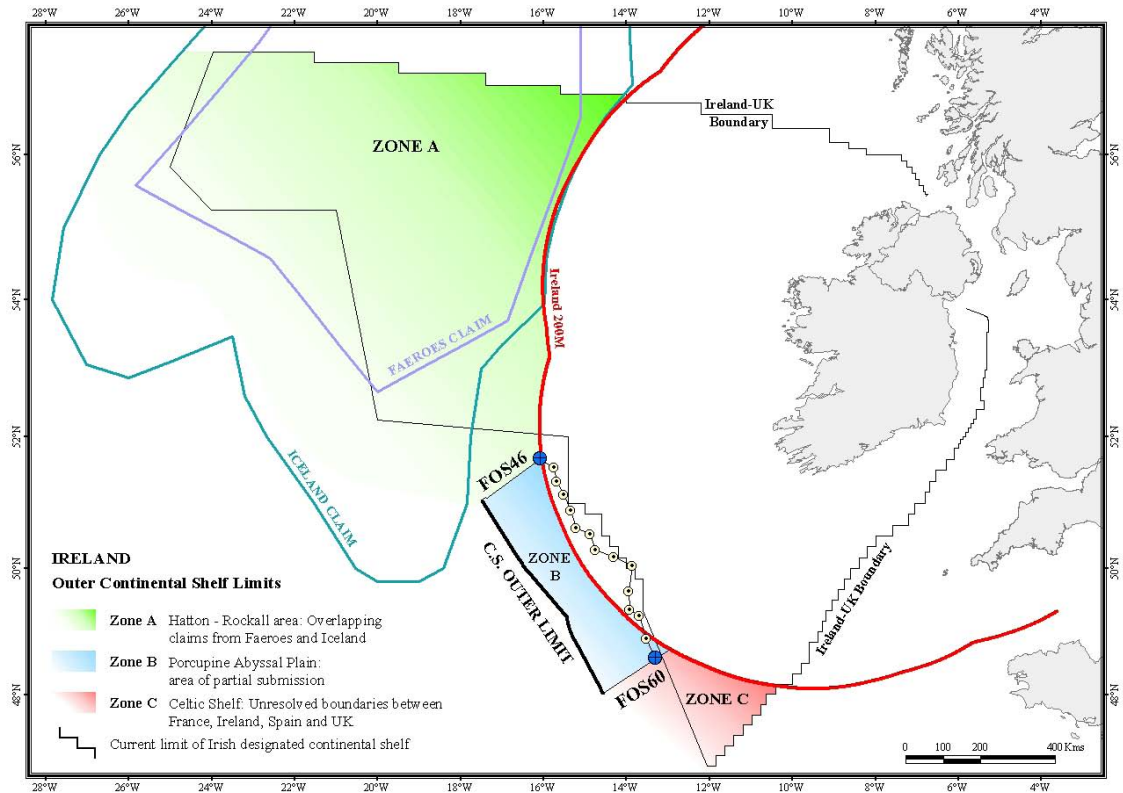
## ***II. THE SUBMISSION OF IRELAND AND ITS CONSIDERATION BY THE COMMISSION AND THE SUBCOMMISSION***

### ***A. Consideration of the Submission***

3. The Subcommission established at the sixteenth session of the Commission examined the Submission during the sixteenth, resumed sixteenth, seventeenth and eighteenth sessions. In the course of the examination, the Subcommission held a total of 42 meetings, including 8 meetings with the Delegation of Ireland, in the course of the sixteenth, resumed sixteenth, seventeenth and eighteenth sessions. It posed a total of 25 written questions to the Irish Delegation, and the Delegation provided responses in writing.

### ***B. Matters related to unresolved disputes***

4. The partial Submission is made by Ireland in respect of the area abutting the Porcupine Abyssal Plain, in accordance with paragraph 3 of Annex I to the rules of procedure, in order not to prejudice unresolved questions relating to the delimitation of boundaries between Ireland and some of its neighbours in other portions of the extended continental shelf claimed by Ireland. Submissions in respect of these other portions of extended continental shelf will be made by Ireland at a later stage.
5. The issue of overlapping claims and unresolved maritime boundaries is dealt with in the executive summary of the partial Submission of Ireland as per Figure 1.3 (reproduced herein as Figure 1).



**Figure 1. Zonation of Ireland’s extended continental shelf showing overlapping claims and unresolved maritime boundaries with neighbouring States. Zone B is the subject of this partial submission and the outer limit of the continental shelf as submitted by Ireland**

6. The Commission confirms that these Recommendations are without prejudice to any future Submission made by any State with respect to the extended continental shelf and to the question of delimitation of the continental shelf between States with opposite or adjacent coasts.

### **C. Examination of the Submission**

#### **1. Main scientific and technical examination of the submission**

7. As shown in Figure 2, in the Submission, a total of 39 Fixed Points (hereinafter “FPs”) were generated from five selected points of the foot of the continental slope (hereinafter “FOS”), namely (as Part I, per Appendix 1.1, page 6, of the Executive Summary): FP 1 from FOS 46; FP 2 from FOS 50; FPs 3-10 from FOS 51; FPs 11-32 from FOS 57; and FPs 33-39 from FOS 60. Two FPs were established by the Gardiner Formula; 37 FPs by the Hedberg Formula;

#### **a. Foot of continental slope points (FOSs)**

8. The points of the FOSs were determined on 2D profiles from a 3D bathymetric grid using CARIS LOTS™.

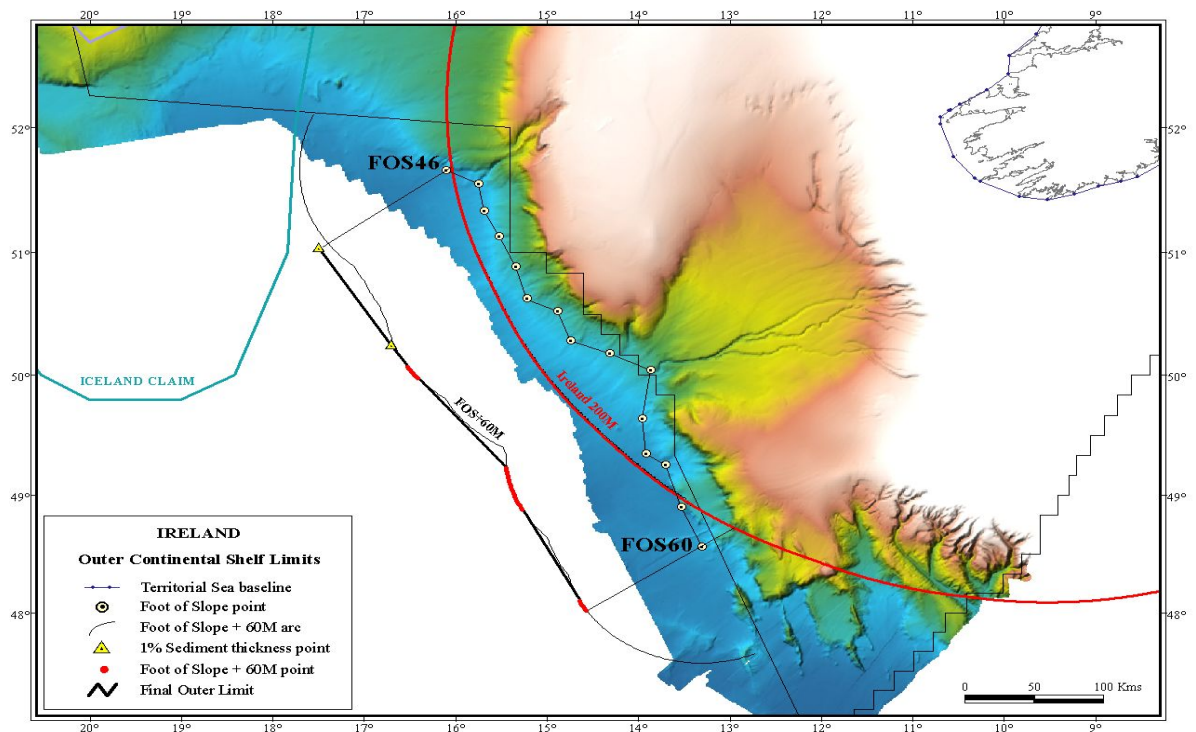


9. A total of 15 FOSs points were selected, of which 5 of them were used to generate 39 FPs:

<b>46 – used;</b>	<b>51 – used;</b>	56;
47;	52;	<b>57 – used;</b>
48;	53;	58;
49;	54;	59;
<b>50 – used</b>	55;	<b>60 – used</b>

***b. Outer limits***

10. The outer limits were constructed in CARIS LOTS™ combining the 1 per cent Sediment thickness (“Gardiner”) lines and the FOS + 60 M (“Hedberg”) lines.
11. Subsequently, in the course of the examination, the Irish Delegation adjusted the proposed limit by introducing a new FP generated from FOS 53. In the view of the Subcommittee, this adjustment was of a minor nature and did not require new publicity.
12. The FP 15 generated from FOS 53, proposed during the examination, was not endorsed by the Subcommittee on scientific and technical grounds. The Delegation accepted this view.

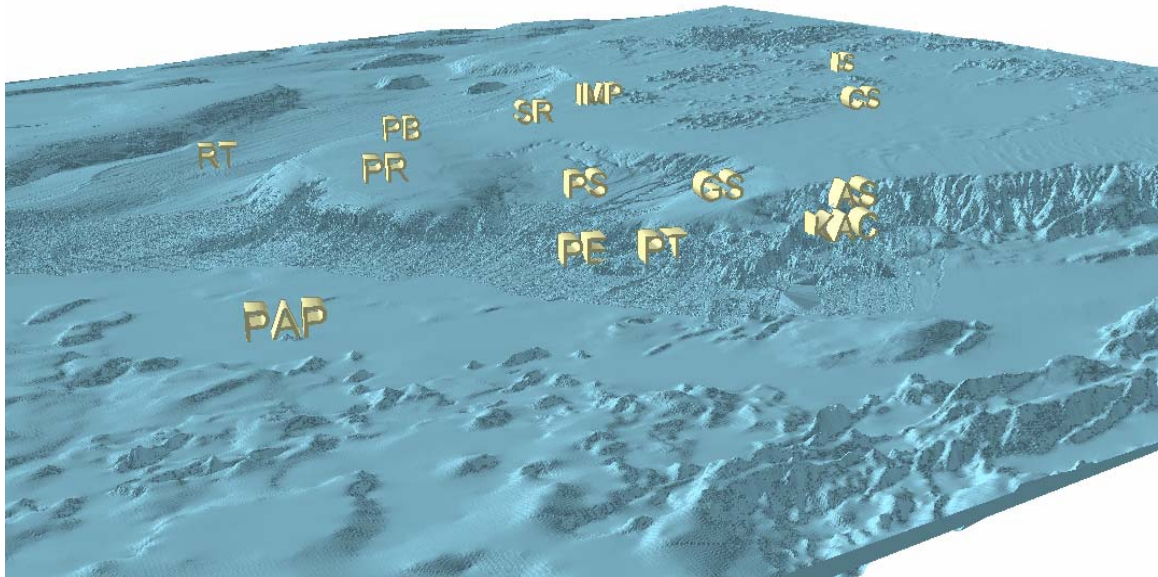


***Figure 2. Details of the formula lines used to define the outer limit of the extended continental shelf in the area abutting the Porcupine Abyssal Plain as submitted by Ireland.***

## 2. Analysis of Fixed Points Generated from Selected FOSs

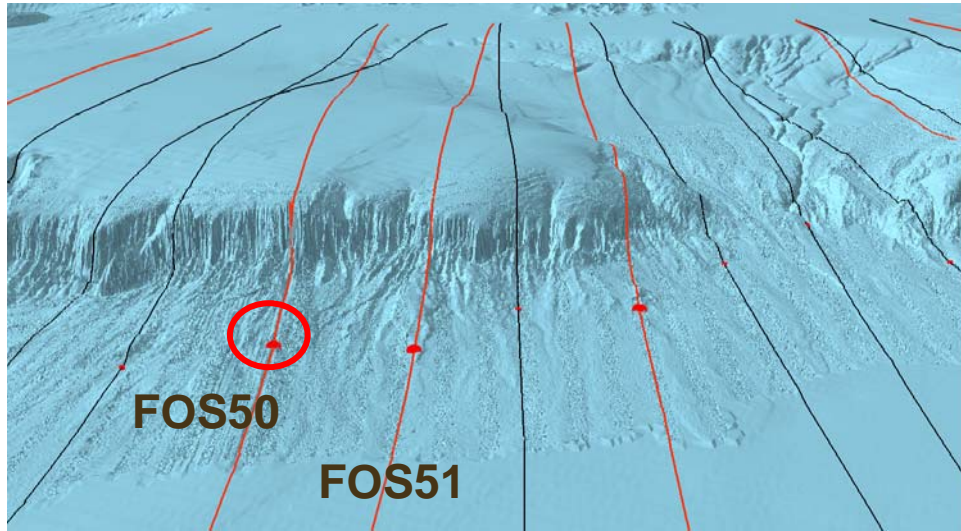
### a. Overview

13. The geomorphological analysis of the Irish continental margin in the partial Submission reveals a two-segment slope. Slope failure/erosion of margin of Porcupine Bank has produced a lower slope composed of coalescing slump, slide and debris flow deposits separated by channels and gulleys. These depositional features are characteristic of slopes and not rises. This is supported by evidence provided by a Subcommission 3D (TIN) Bathymetric Model prepared from multibeam (corrected ping) and other data submitted by Ireland [see Figures 3-6].

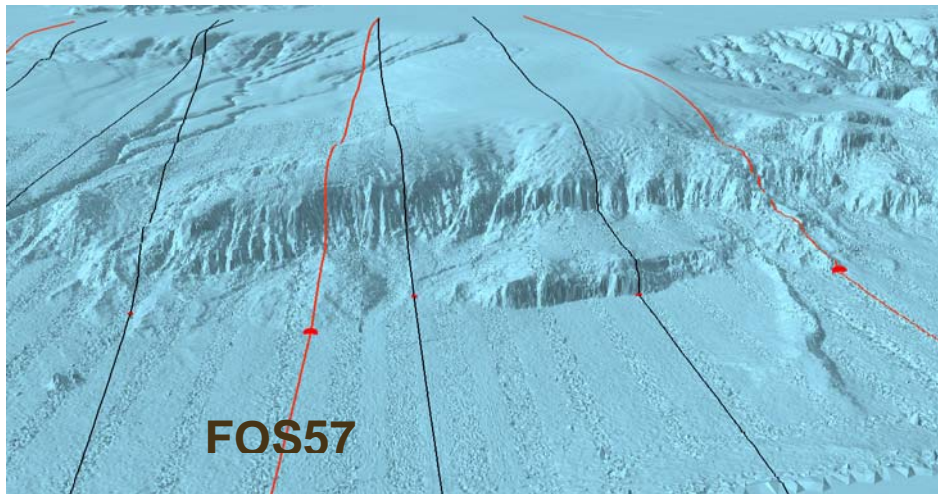


**Figure 3. Geomorphological setting of the area abutting the Porcupine Abyssal Plain.**

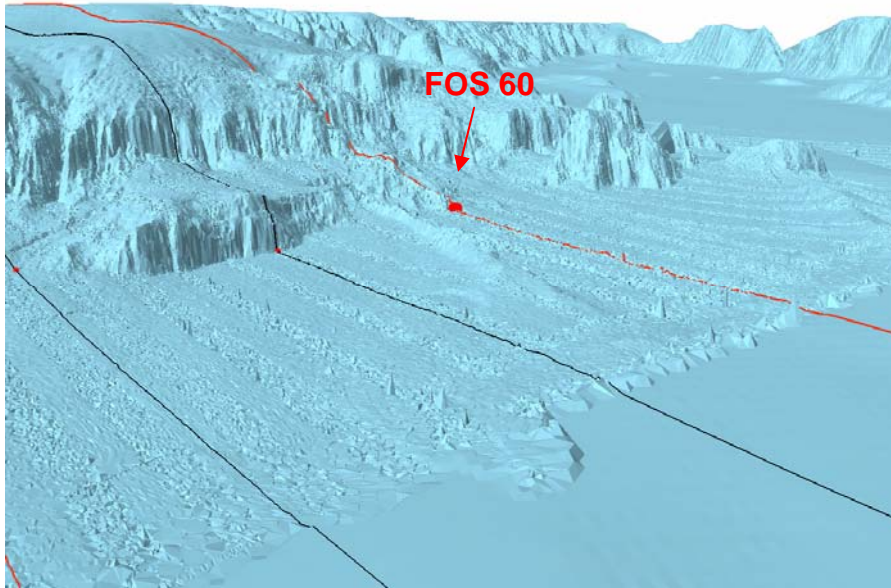
AS = Austel Spur; CS = Celtic Sea; GS = Goban Spur; IMP = Irish Mainland Platform; IS = Irish Sea; KAC = King Arthur Canyon; PAP = Porcupine Abyssal Plain; PB = Porcupine Basin; PE = Pendragon Escarpment; PR = Porcupine Ridge; PS = Porcupine Seabight; PT = Pendragon Terrace; RT = Rockall Trough; SR = South Rockall.



*Figure 4. 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam corrected ping) and other data submitted by Ireland showing the morphological characteristics of the Porcupine Bank margin and various FOS locations.*

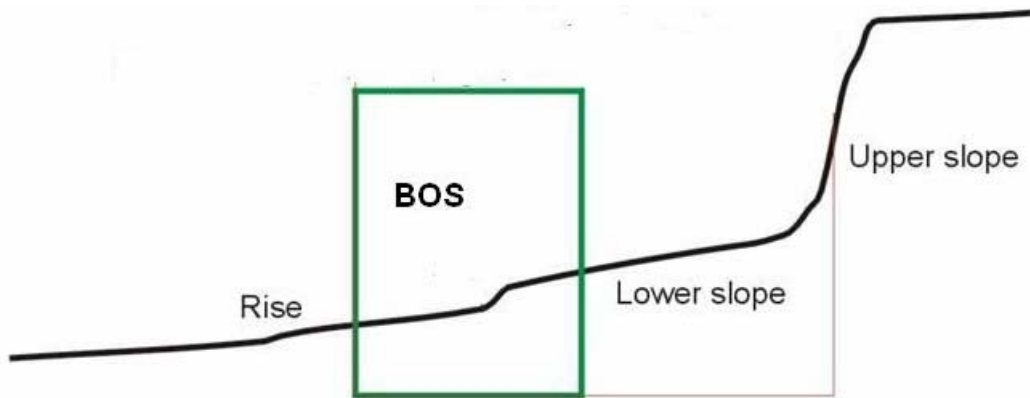


*Figure 5. 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam corrected ping) and other data submitted by Ireland showing the morphological characteristics of the Goban Spur margin and FOS locations.*



*Figure 6. 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam corrected ping) and other data submitted by Ireland showing the morphological characteristics of the Goban Spur margin and various FOS locations.*

14. The base of the continental slope (hereinafter “BOS”) in this part of the Porcupine Bank margin lies at the outer edge of a complex lower slope formed by mass-transport depositional processes associated with slope failure and erosion of the Porcupine Bank margin) and not at a more landward maximum change in regional gradient [see Figure 7].
15. This approach is consistent with paragraphs 5.4.5 and 5.4.6, as well as paragraphs 5.4.12 and 6.3.12 of the Guidelines.



*Figure 7. Schematic bathymetric profile across the Porcupine Bank margin showing the BOS proposed by Ireland.*

***b. Commission's views on the foot of continental slope (FOS) locations***

16. It is recommended that the location of FOSs 46, 50, 51, 57 and 60 are acceptable based on the reasoning set out below:

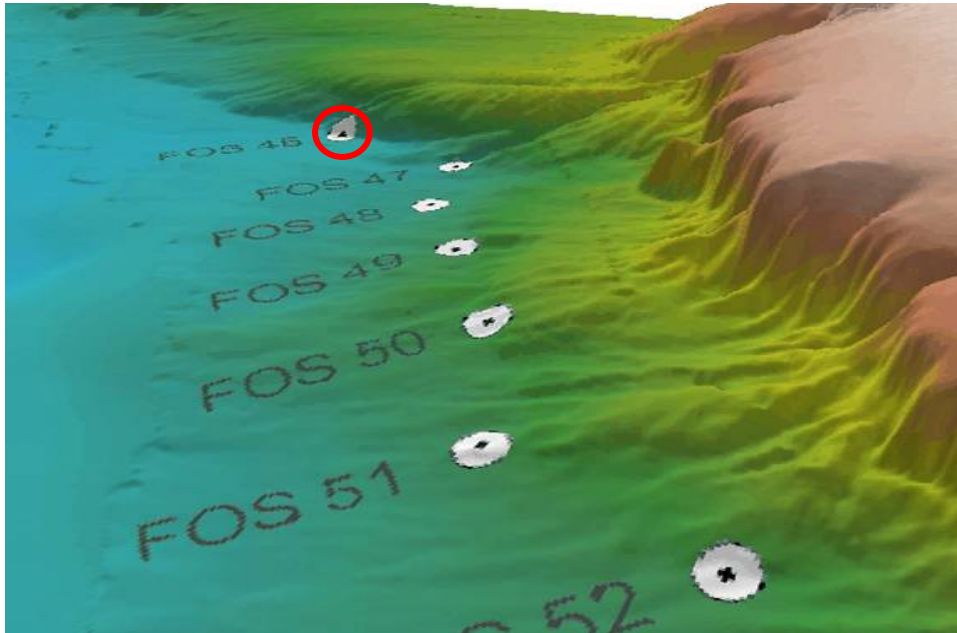
***(i) FOS 46***

17. FOS 46 is located in the region referred to as the Mouth of the Rockall Trough, which is defined as a two-segment slope area by Ireland. For this FOS, the BOS zone has been defined by Ireland on the basis of geophysics – that is, geophysical data (seismic and potential field data) has been used to assist the morphological determination of the BOS under paragraphs 5.4.5 and 5.4.6 of the Guidelines. The BOS zone appears to straddle the outer edge of the ocean/continent transition in this region.
18. FOS 46 has been established by the criterion of maximum change in the gradient at its base using the Douglas-Peucker Algorithm of CARIS LOTS™, which automatically generated only one potential FOS at this location on the associated bathymetric profile. There is a distinctive regional change in gradient in this area from the lower slope with average gradients of about 2° (varying locally from about 1-8°) to the rise/deep ocean floor with gradients of less than 0.2° [see Figure 8].

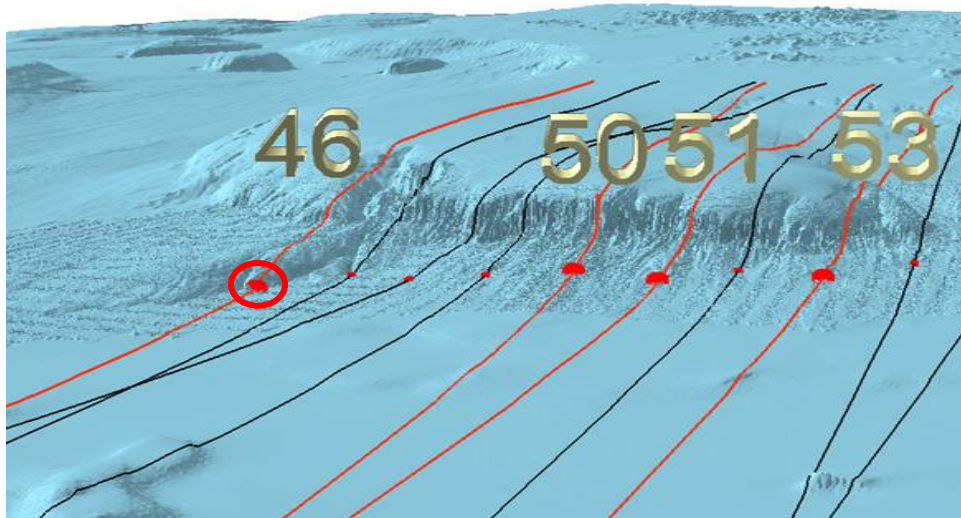


**Figure 8. Detailed and extended bathymetric profiles across the region referred to by Ireland as the Mouth of the Rockall Trough showing the location of FOS 46.**

19. The 3D views of the seafloor contained in Figures 9 and 10 below clearly show the two-segment characteristic of the slope in this area involving both the margin of Porcupine Bank and the floor of the Rockall Trough. Figure 9 is a 3D view looking northwest along the Porcupine Bank margin towards the Rockall Trough that was prepared by Ireland from a bathymetric grid incorporating multibeam and other bathymetric data. Figure 10 is a 3D view (TIN) looking northeast towards the Rockall Trough and Porcupine Bank that was prepared by the Commission from multibeam bathymetric (corrected ping) and other data supplied by Ireland. Various FOS locations are shown in these figures and FOS 46 is highlighted by the red circle.
20. The Commission accepts that FOS 46 lies at the BOS and recommends its use in determining outer limit fixed point FP 2 that was established using the 1 per cent sediment thickness formula.



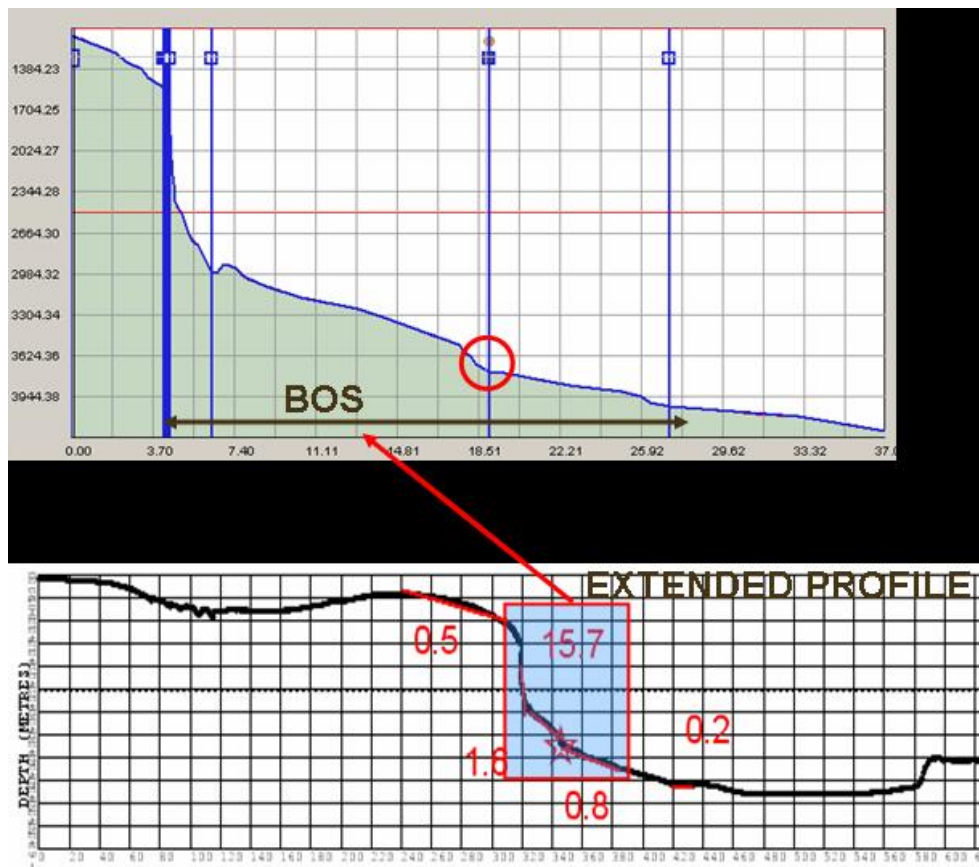
**Figure 9.** 3D view looking northwest along the Porcupine Bank margin towards the Rockall Trough prepared by Ireland from a bathymetric grid incorporating multibeam and other bathymetric data. Shows various foot of continental slope locations with FOS 46 highlighted by the red circle.



**Figure 10.** 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam bathymetric (corrected ping) and other data supplied by Ireland looking northeast towards the Rockall Trough and Porcupine Bank. Shows various FOS locations with FOS 46 highlighted by the red circle.

**(ii) FOS 50**

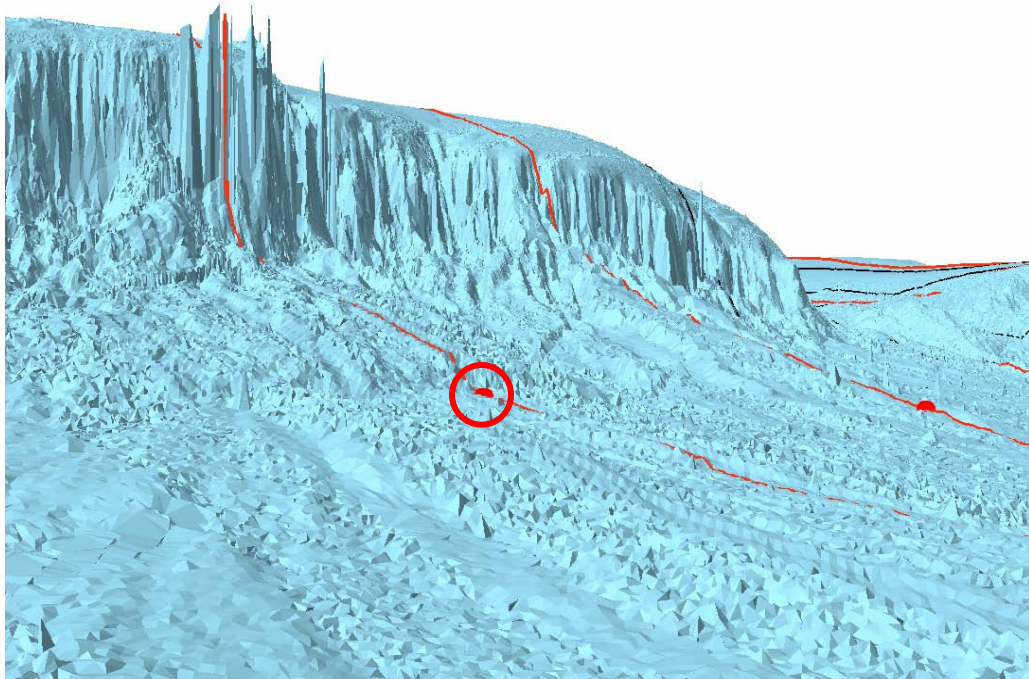
21. FOS 50 is located in the Porcupine Bank area. The BOS zone is located over the outer part of a two-segment slope defined on the basis of morphology and supported by some geological and geophysical evidence, particularly multibeam bathymetric data. The BOS zone lies at the outer edge of a complex lower slope formed by mass transport deposits resulting from slope failure and erosion of the Porcupine Bank margin [see Figures 11, 12 and 13]. The Commission accepts that these features are characteristic of continental slopes and not continental rises. Regional gradients on this profile are up to  $16^\circ$  on the upper slope, and average about  $1.8^\circ$  (varying locally from  $1-6^\circ$ ) on the lower slope, and  $0.2-0.8^\circ$  on the rise [see Figure 11].
22. FOS 50 has been established by the criterion of maximum change in the gradient at its base using the Douglas-Peucker Algorithm of CARIS LOTS™, which automatically generated several potential FOS locations on this profile. The exact FOS location was supplemented by additional evidence, particularly 3D bathymetric images.



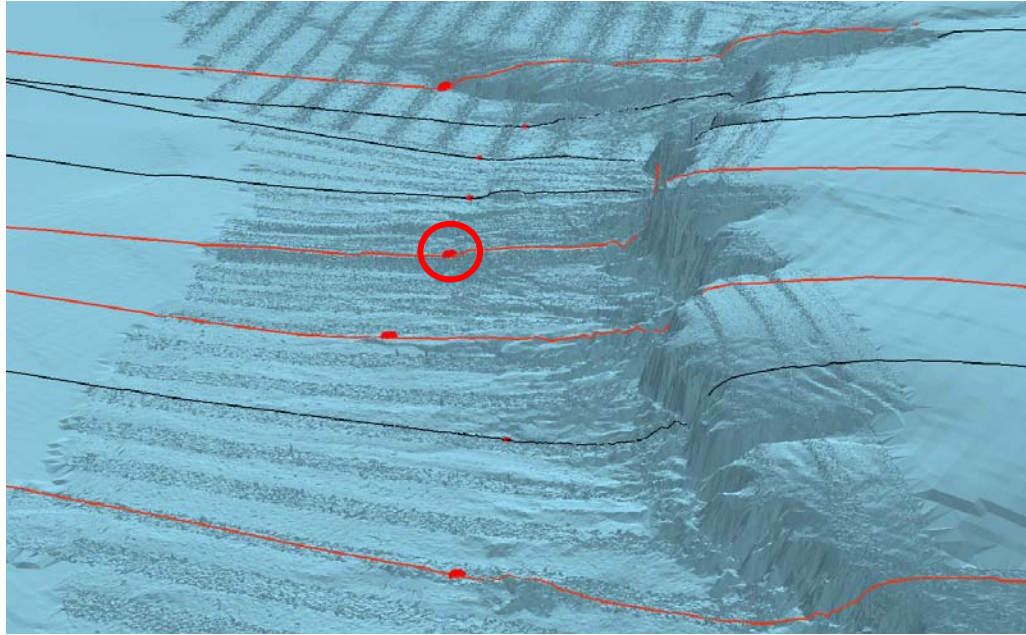
**Figure 11. Detailed and extended bathymetric profiles across the Porcupine Bank margin showing the location of FOS 50.**



23. The 3D views of the seafloor contained in Figures 12 and 13, show the two-segment characteristic of the slope and the complex lower slope formed by mass transport deposits resulting from slope failure and erosion of the Porcupine Bank margin. The Commission recognises these deposits as depositional features of the lower slope. Figures 12 and 13 are 3D views (TINs) looking east and northwest, respectively, along the Porcupine Bank margin. These images were prepared by the Commission from multibeam bathymetric (corrected ping) and other data supplied by Ireland. Various bathymetric profile locations are shown in these figures and FOS 50 is highlighted by the red circle.
24. The Commission accepts that FOS 50 lies at the BOS and recommends its use in determining outer limit FP 2 established using the 1 per cent sediment thickness formula.



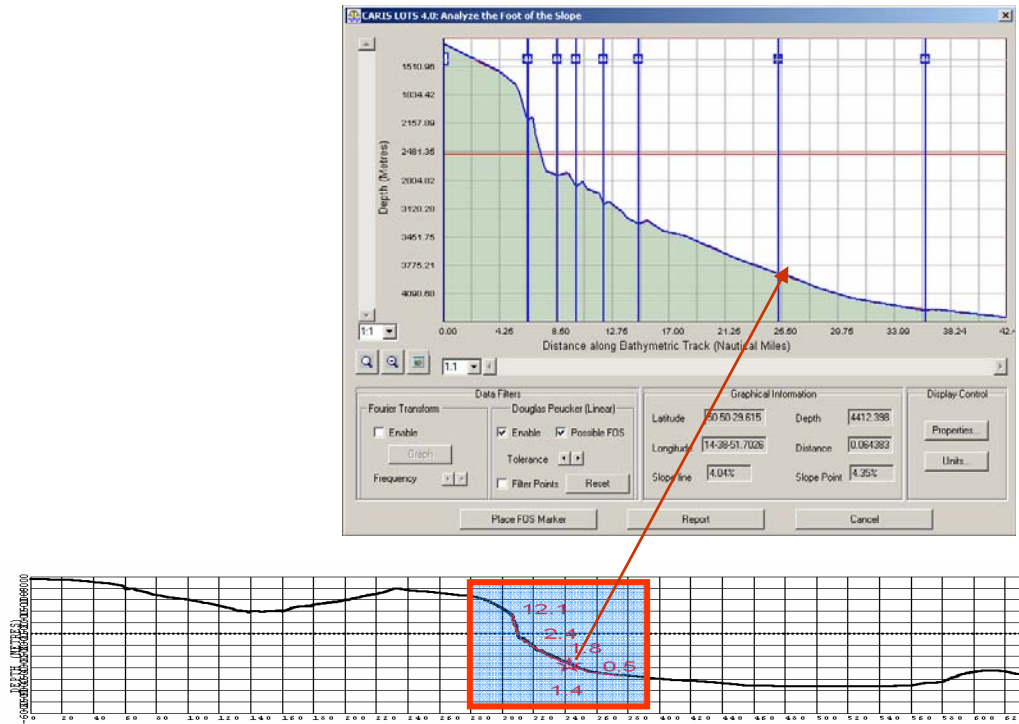
*Figure 12. 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam corrected ping) and other data submitted by Ireland looking east towards FOS 50 (highlighted by the red circle).*



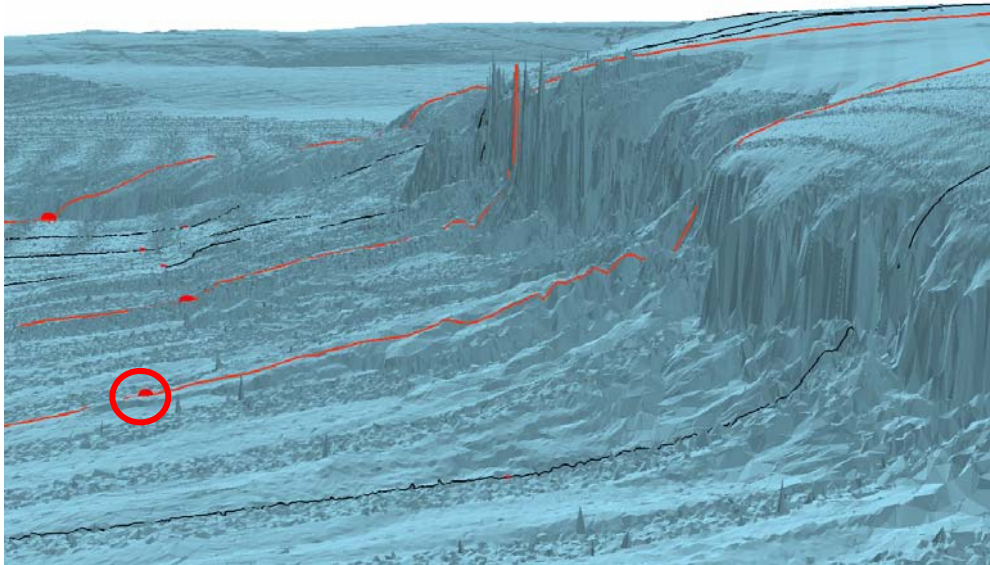
***Figure 13. 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam corrected ping) and other data submitted by Ireland looking northwest towards FOS 50 (highlighted by the red circle).***

**(iii) FOS 51**

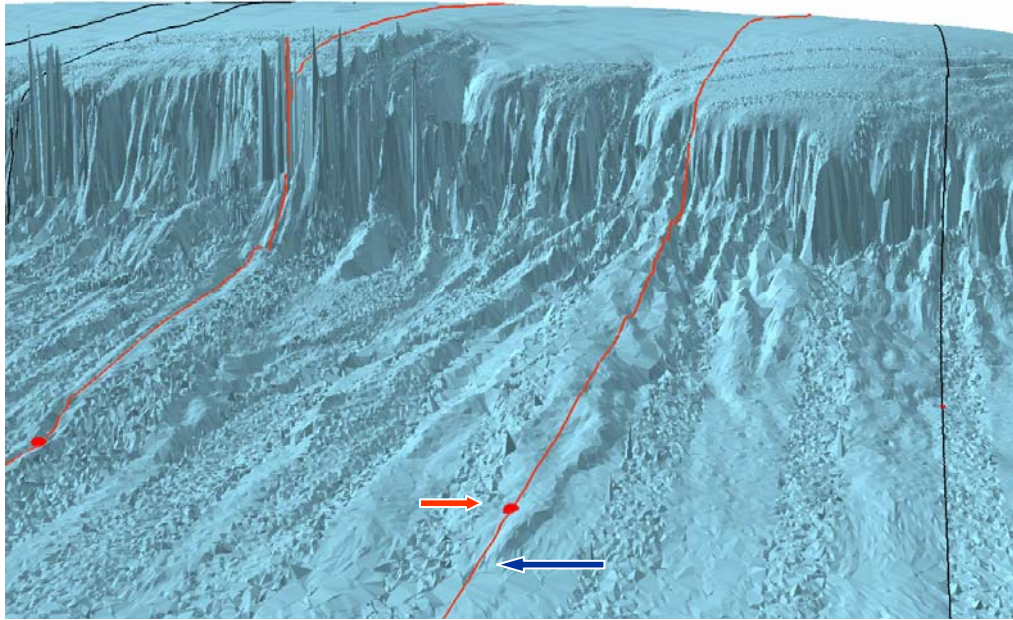
25. The location of FOS 51 is at the western edge of the Porcupine Bank.
26. FOS 51 point is selected on the basis of morphology on the slope-rise profile by using CARIS LOTS™ at a local change of gradient in unclear distinction between the slope and the rise [see Figure 14].
27. Established on the basis of two-segment slope concept according to which the largest peak in maximum change of gradient is interpreted as the boundary between upper and lower slope. The BOS is defined on the basis of morphology with some geological and geophysical evidence.



**Figure 14. Detailed and extended bathymetric profiles across the Porcupine Bank margin showing the location of FOS 51.**



**Figure 15. 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam corrected ping) and other data submitted by Ireland looking northwest towards FOS 51 (highlighted by the red circle).**



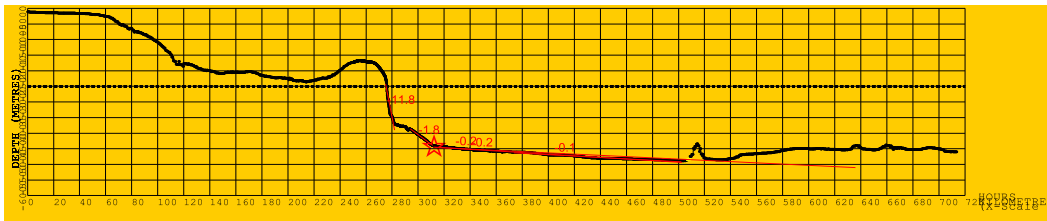
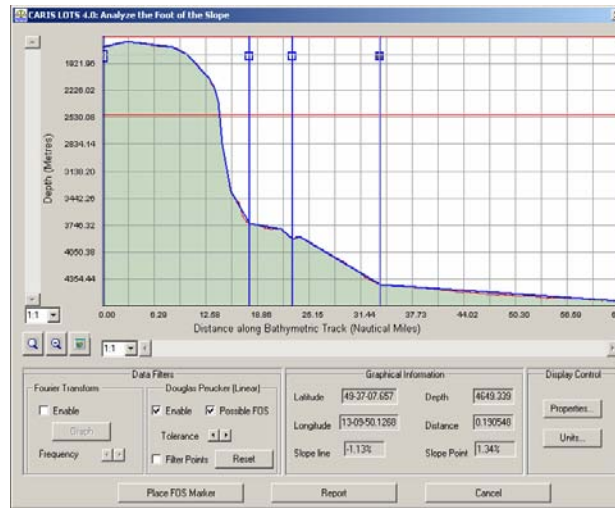
**Figure 16. 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam corrected ping and other data submitted by Ireland looking northeast towards FOS 51 (highlighted by the red arrow). The blue arrow shows an alternative location for the FOS.**

28. The 3D view contained in Figure 15, was prepared by the Subcommittee on the basis of multi-beam bathymetry data for FOS 51. It clearly shows the lower slope, which is natural extension of the upper part and appears to be an integral part of the single whole morphological feature of the slope with a lower part extensively modified by processes of slope failure. The image of the lower slope [Figure 16] differs substantially from the image of the surrounding rise area. From these 3D images it also appears that the proposed FOS 51 is located within the “lower slope”.

29. The Commission recommends that the selected FOS 51, from which the FPs 2-20 were established using the FOS + 60 M formula, be accepted.

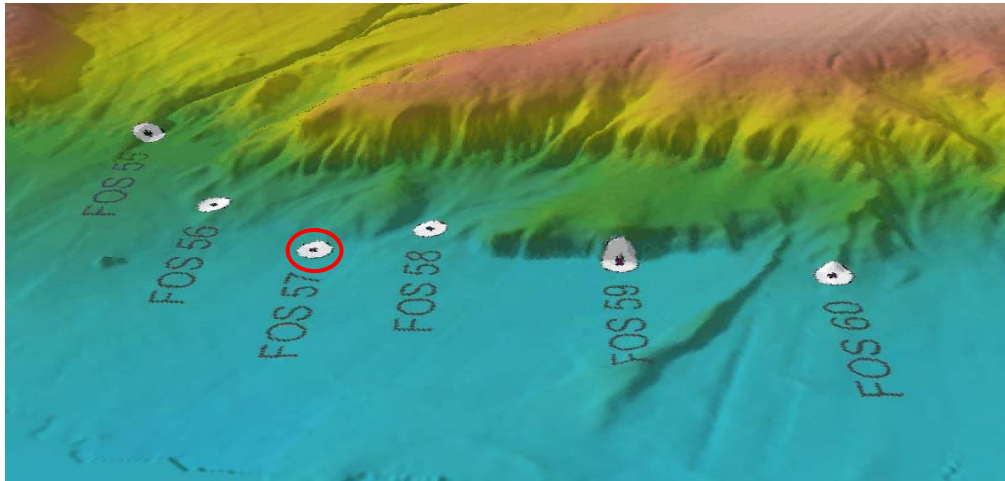
**(iv) FOS 57**

30. FOS 57 point is selected on the basis of morphology on the slope-rise profile by using CARIS LOTS™ at the base of the lower slope, in the context of their two-segment continental slope concept [see Figure 17].

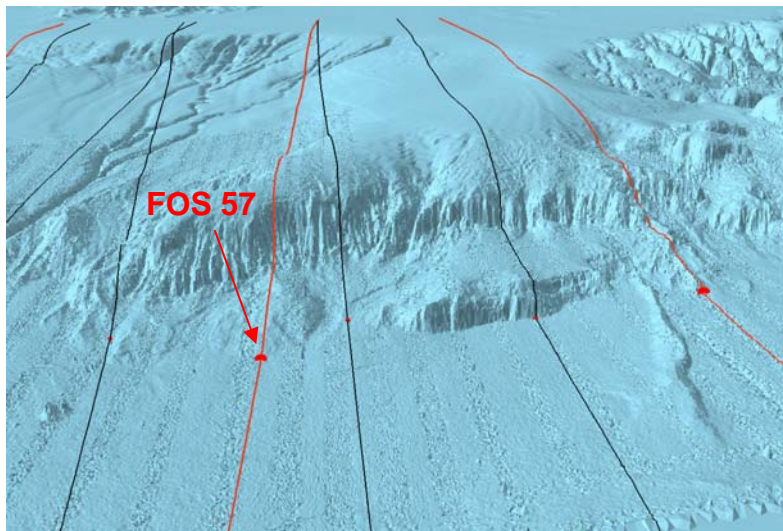


**Figure 17. Detailed and extended bathymetric profiles across the Goban Spur margin showing the location of FOS 57.**

31. The 3D image in the area of FOS 57 [see Figure 18] shows a lower slope feature generated by slumping and slope failure.
32. Low rate of sedimentation, due to the absence of any important continental sediment source, resulted in reduced lower slope and hardly any continental rise development.



**Figure 18.** 3D view looking northeast towards the Goban Spur margin prepared by Ireland from a bathymetric grid incorporating multibeam and other bathymetric data. Shows various foot of continental slope locations with FOS 57 highlighted by the red circle.



**Figure 19.** 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam bathymetric (corrected ping) and other data supplied by Ireland looking east towards the Goban Spur margin. Shows various FOS locations with FOS 57 highlighted by the red arrow.

33. The Commission recommends that the selected FOS 57, from which the FPs 21-32 were established using the FOS + 60 M formula, be accepted.

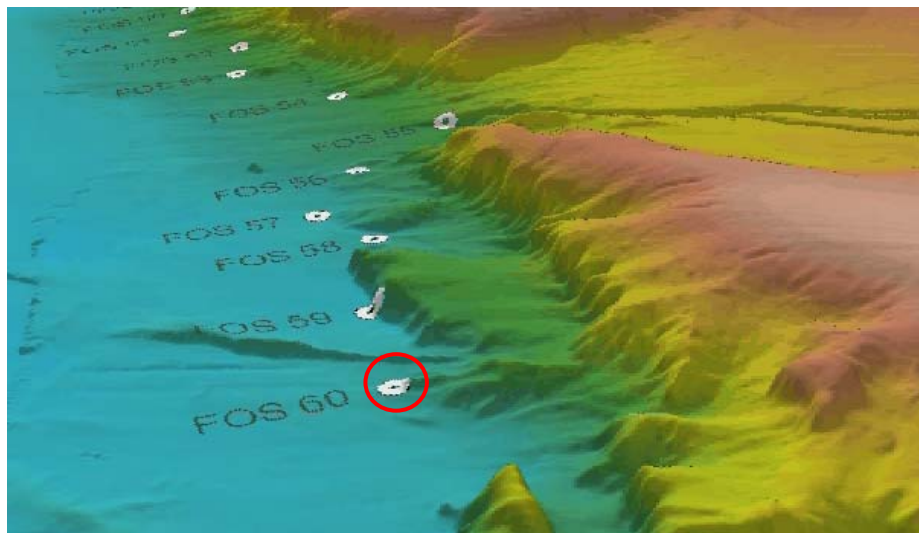
**(v) FOS 60**

34. FOS 60 is established, with sufficient geophysical evidence, at the BOS. It is selected on the basis of morphology where the maximum change in the gradient occurs, where the

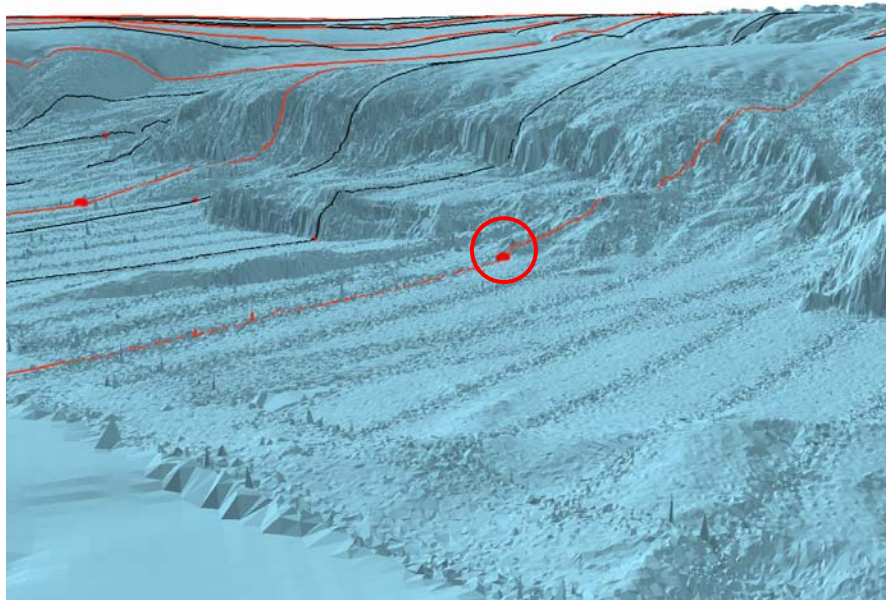
rise has a gradient of  $0.4^\circ$  (that is within the expected range of  $< 0.5^\circ$  for a rise), and the regional gradient of the lower slope is  $\sim 2^\circ$  [see Figures 20 - 23].



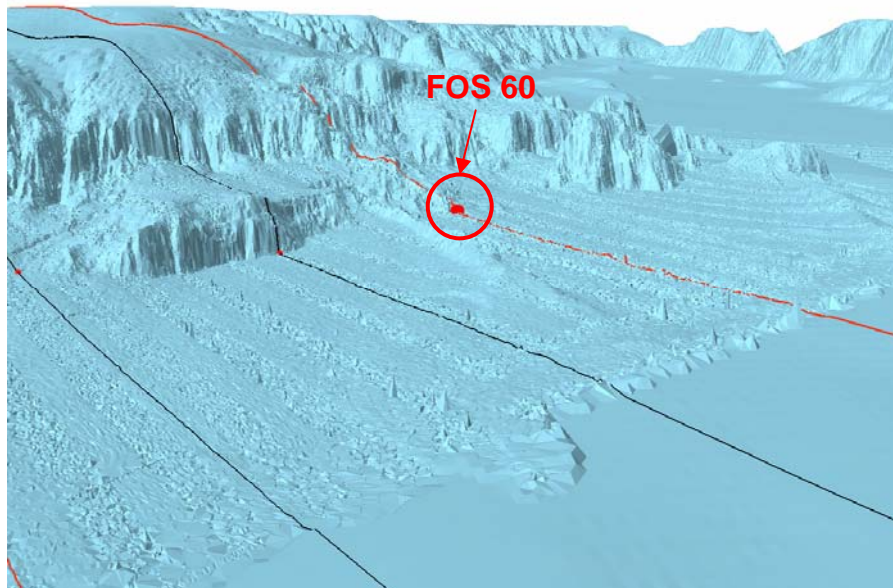
**Figure 20.** Detailed and extended bathymetric profiles across the Goban Spur margin showing the location of FOS 60.



**Figure 21.** 3D view looking northwest along the Goban Spur margin prepared by Ireland from a bathymetric grid incorporating multibeam and other bathymetric data. Shows various foot of continental slope locations with FOS 60 highlighted by the red circle.



*Figure 22. 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam bathymetric (corrected ping) and other data supplied by Ireland looking northeast towards the Goban Spur margin. Shows various FOS locations with FOS 60 highlighted by the red circle.*



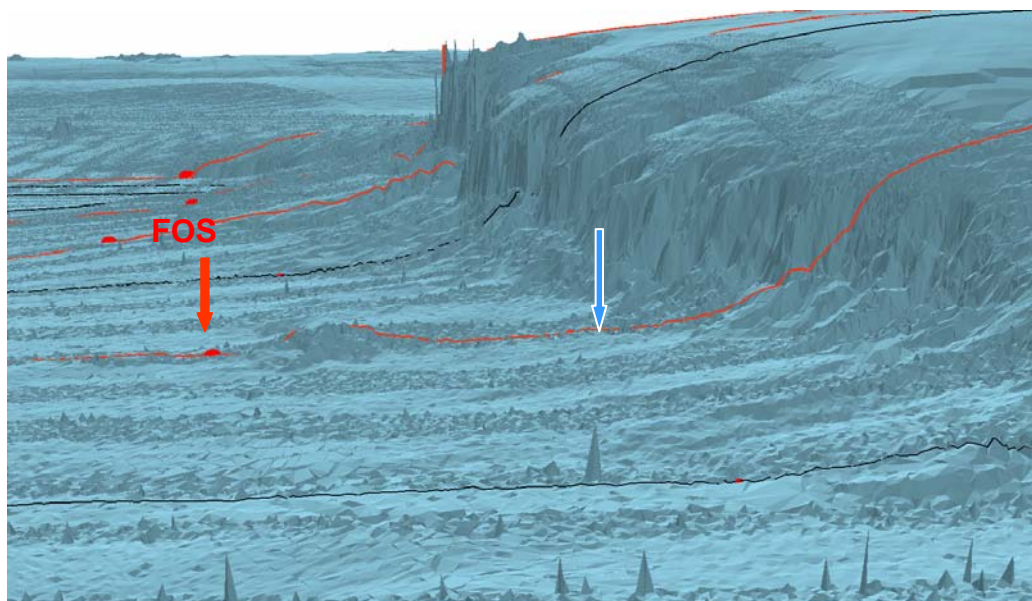
*Figure 23. 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam bathymetric (corrected ping) and other data supplied by Ireland looking southeast along the Goban Spur margin. Shows various FOS locations with FOS 60 highlighted by the red circle.*



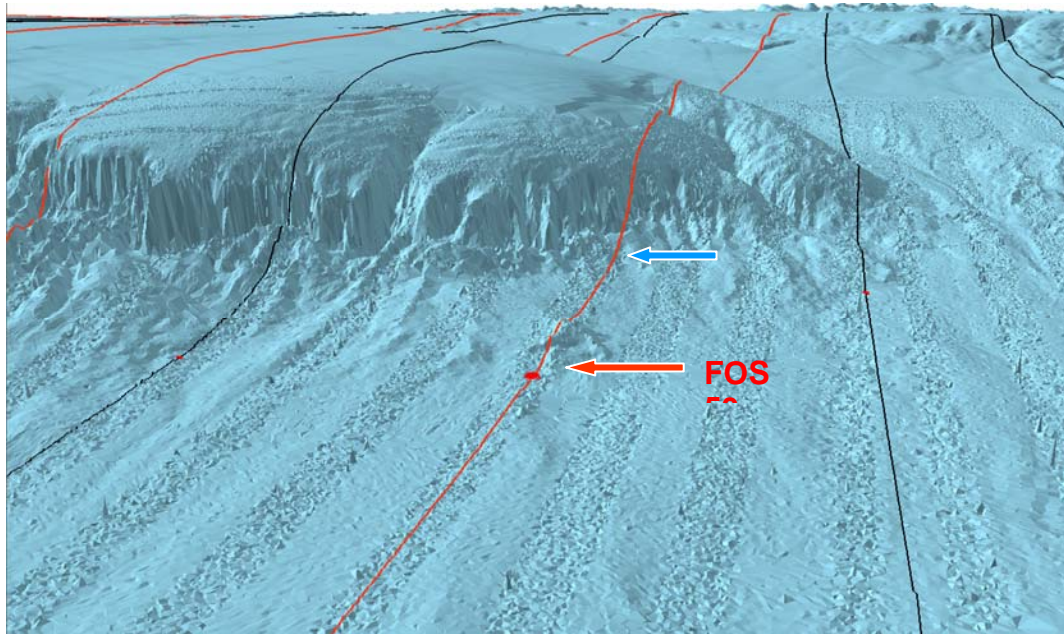
35. The Commission recommends that the selected FOS 60, from which the FPs 33-39 were established using the FOS + 60 M formula, be accepted.

*c. Consideration of adjustments to outer limit*

36. The Commission examined the proposal of the Irish Delegation to adjust the proposed limit by introducing a new fixed point, FP 15, generated from FOS 53. This was not endorsed by the Commission on scientific and technical grounds. The Delegation accepted this view.
37. The Commission concluded that the location of FOS 53 that generated the revised FP 15 could not be justified on scientific and technical grounds. The 3-D view of the Irish margin prepared by the Subcommittee on the basis of multi-beam bathymetry data for FOS 53 clearly shows that the high is separated from the lower slope [see Figure 24]. The image also indicates that the high is a mound-like structure within the surrounding rise area.



*Figure 24. 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam bathymetric (corrected ping) and other data supplied by Ireland looking north along the Porcupine Bank margin. Shows various FOS locations with FOS 53 highlighted by the red arrow and the more landward FOS location preferred by the Commission shown by the blue arrow.*



**Figure 25. 3D (TIN) bathymetric model prepared by the Subcommittee from multibeam bathymetric (corrected ping) and other data supplied by Ireland looking east along the Porcupine Bank margin. Shows various FOS locations with FOS 53 highlighted by the red arrow and the more landward FOS location preferred by the Commission shown by the blue arrow.**

38. In the absence of any evidence to prove otherwise, the location of FOS 53 [see Figure 25 - red arrow] should be taken as being on the rise and the FOS should be relocated to the maximum change in gradient landward of the seafloor high, in the region indicated by the blue arrow.
39. The introduction of FP 15 from FOS 53 was not endorsed by the Commission on scientific and technical grounds. The Delegation of Ireland accepted this view and excluded FOS 53 from the construction of the final outer limit.

***d. Verification of seismic information and sediment thickness points***

40. Multichannel seismic reflection line PAD95-12 crosses both FOS 46 and outer limit fixed point FP 1 that was defined using the one per cent sediment thickness formula based on computations from FOS 46. Similarly, multichannel seismic reflection line PAD95-13 crosses both FOS 50 and outer limit fixed point FP 2 that was defined using the one per cent sediment thickness formula based on computations from FOS 50. The seismic data on lines PAD95-12 and -13 is of good quality and is appropriate for use in the determination of 1 per cent sediment thickness points.
41. The reflection time to depth conversion for the PAD95 seismic lines was conducted using interval velocities derived from seismic stacking velocities using the Dix equation at each velocity analysis location. Ireland used a conservative approach in its time/depth conversion by choosing the interval velocity of the sedimentary section minus 10 per cent to estimate sediment thickness. A comparison between the measured sonic velocities on cores from DSDP sites in the region with the interval velocities derived from seismic

profiles through the DSDP sites showed relatively good agreement despite the inherent problems involved in such comparisons. The Commission accepts that plausible stacking velocities and thus derived interval velocities were utilised by Ireland.

42. The Commission's analyses, verifications and checking of the velocity data and supporting information submitted validates the interval velocities employed by Ireland in the time to depth conversion, and its use in the determination of sediment thickness.
43. The Commission agrees with Ireland's conclusion that it can be established that there is a continuous sedimentary apron along the margin in the region of the sediment thickness points, and that continuity of sediments exists between the sediment thickness points and the relevant FOSs. Regional seismic and potential field data indicates that some small areas of basement outcrop at the seafloor on the seismic line between the sediment thickness point defining FP 2 and related FOS 50, are localised highs and do not disrupt continuity back to the FOS zone.
44. The Commission agreed that Ireland's approach to the determination of the sediment thickness points is verifiable and acceptable.

***(i) Application of the Sediment Thickness Formula***

45. Two sediment thickness points lie beyond 200 M and the 60 M formula line in the northern part of the region and are therefore relevant to the outer limit in the partial Submission of Ireland
46. Initially the two sediment thickness points did not meet the 1 per cent criterion, but, following discussions and clarifications, the Delegation of Ireland made minor amendments to their locations that brought them into conformity with article 76.

***e. Verification of constraint lines***

47. Envelope of 350 M arcs: the envelope of arcs defined at a distance of 350 M from the baselines from which the territorial sea is measured forms the outer constraint line throughout the region of the partial Submission of Ireland. This constraint line was verified and agreed [see Figure 27].
48. 2,500 m isobath + 100 M: the envelope of arcs at 100 M from the 2,500 m isobath does not exceed the breadth of the 350 M constraint line at any location throughout this region [see Figure 27].

***f. Verification and conformity of the outer limit***

49. The 60 M formula line exceeds the breadth of the sediment thickness formula line along all but the northern part of the region and thus contributes directly to the determination of the outer limit of the continental shelf throughout most of the region.
50. Two sediment thickness formula points lie beyond 200 M and the 60 M formula line in the northern part of the region and therefore contribute directly to the outer limit in this portion of the partial Submission of Ireland
51. Ireland's approach to the determination of the sediment thickness points has been verified and accepted.
52. The formula line does not extend beyond the 350 M constraint at any location.

### ***III. RECOMMENDATIONS***

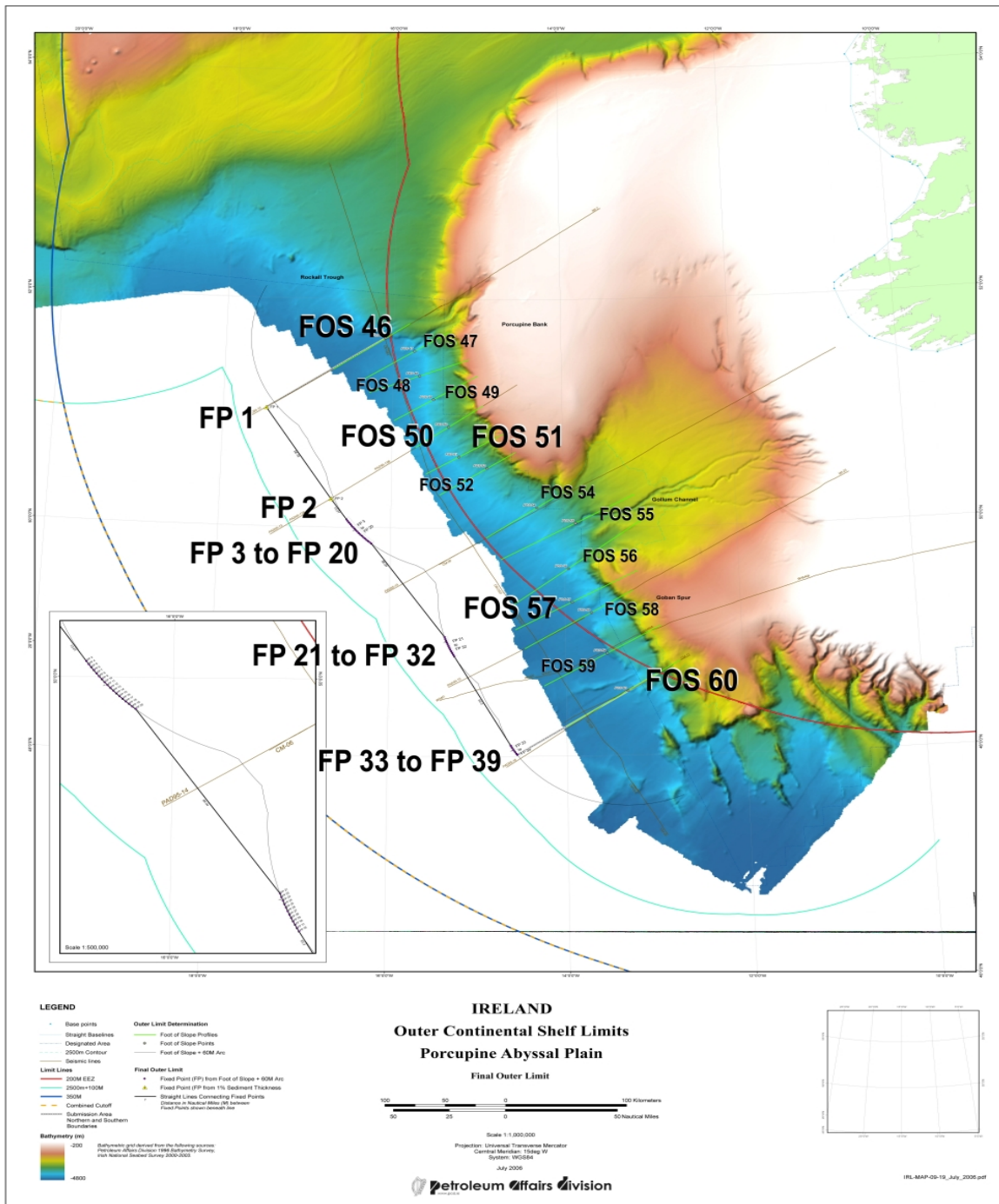
53. The partial Submission satisfied the test of appurtenance, and Ireland is entitled to delineate the outer limit of its extended continental shelf beyond 200 M;
54. The location of the BOS, as well as the concept of a two-segment continental slope, is accepted;
55. The selection of FOSs 46, 50, 51, 57 and 60 is endorsed;
56. The adjusted sediment thickness points forming new FP 1 and FP 2 generated from FOSs 46 and 50 respectively, are accepted;
57. The Commission recommends that the outer limit of the extended continental shelf of Ireland in the area abutting the Porcupine Abyssal Plain is to be established as per Table 3 as illustrated in Figure 27.<sup>2</sup>

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<sup>2</sup> Figure 26 and Tables 1 and 2 of the full recommendations are not contained within these excerpts.

**Table 3. Fixed points recommended by the Commission to be used to define the outer limit of the extended continental shelf of Ireland in the area abutting the Porcupine Abyssal Plain.**

FP	Latitude N	Longitude W	Method	Source	From FP	To FP	Distance (m)	Distance (M)
1	51.0369536	-17.4934128	1% Sediment Thickness	FOS 46				
2	50.2489863	-16.7005384	1% Sediment Thickness	FOS 50	1	2	104056.81	56.19
3	50.0691902	-16.5126452	FOS + 60 M arc	FOS 51	2	3	24088.13	13.01
4	50.0554937	-16.4979397	FOS + 60 M arc	FOS 51	3	4	1851.94	1.00
5	50.0419552	-16.4828907	FOS + 60 M arc	FOS 51	4	5	1851.88	1.00
6	50.0285778	-16.4675026	FOS + 60 M arc	FOS 51	5	6	1851.88	1.00
7	50.0153645	-16.4517798	FOS + 60 M arc	FOS 51	6	7	1851.92	1.00
8	50.0023213	-16.4357247	FOS + 60 M arc	FOS 51	7	8	1851.83	1.00
9	49.9894483	-16.4193439	FOS + 60 M arc	FOS 51	8	9	1851.95	1.00
10	49.9767514	-16.4026397	FOS + 60 M arc	FOS 51	9	10	1851.97	1.00
11	49.9642336	-16.3856211	FOS + 60 M arc	FOS 51	10	11	1851.81	1.00
12	49.9518981	-16.3682904	FOS + 60 M arc	FOS 51	11	12	1851.79	1.00
13	49.9397464	-16.3506497	FOS + 60 M arc	FOS 51	12	13	1852.04	1.00
14	49.9277843	-16.3327081	FOS + 60 M arc	FOS 51	13	14	1851.89	1.00
15	49.9160151	-16.3144701	FOS + 60 M arc	FOS 51	14	15	1851.75	1.00
16	49.9044388	-16.2959378	FOS + 60 M arc	FOS 51	15	16	1852.00	1.00
17	49.8930614	-16.2771204	FOS + 60 M arc	FOS 51	16	17	1851.82	1.00
18	49.8818844	-16.2580199	FOS + 60 M arc	FOS 51	17	18	1851.91	1.00
19	49.8709124	-16.2386410	FOS + 60 M arc	FOS 51	18	19	1851.92	1.00
20	49.8601470	-16.2189926	FOS + 60 M arc	FOS 51	19	20	1851.83	1.00
21	49.0478481	-15.3693211	FOS + 60 M arc	FOS 57	20	21	109346.26	59.04
22	49.0320589	-15.3612745	FOS + 60 M arc	FOS 57	21	22	1851.86	1.00
23	49.0163592	-15.3528370	FOS + 60 M arc	FOS 57	22	23	1851.81	1.00
24	49.0007521	-15.3440066	FOS + 60 M arc	FOS 57	23	24	1851.99	1.00
25	48.9852450	-15.3347876	FOS + 60 M arc	FOS 57	24	25	1851.81	1.00
26	48.9698395	-15.3251846	FOS + 60 M arc	FOS 57	25	26	1851.85	1.00
27	48.9545401	-15.3151976	FOS + 60 M arc	FOS 57	26	27	1851.94	1.00
28	48.9393514	-15.3048333	FOS + 60 M arc	FOS 57	27	28	1851.88	1.00
29	48.9242780	-15.2940895	FOS + 60 M arc	FOS 57	28	29	1851.93	1.00
30	48.9093243	-15.2829750	FOS + 60 M arc	FOS 57	29	30	1851.78	1.00
31	48.8944919	-15.2714901	FOS + 60 M arc	FOS 57	30	31	1851.97	1.00
32	48.8797885	-15.2596368	FOS + 60 M arc	FOS 57	31	32	1851.84	1.00
33	48.0979064	-14.6273868	FOS + 60 M arc	FOS 60	32	33	98708.60	53.30
34	48.0833284	-14.6153696	FOS + 60 M arc	FOS 60	33	34	1851.73	1.00
35	48.0688832	-14.6029975	FOS + 60 M arc	FOS 60	34	35	1851.96	1.00
36	48.0545769	-14.5902751	FOS + 60 M arc	FOS 60	35	36	1851.94	1.00
37	48.0404143	-14.5772069	FOS + 60 M arc	FOS 60	36	37	1851.80	1.00
38	48.0263984	-14.5637951	FOS + 60 M arc	FOS 60	37	38	1851.80	1.00
39	48.0170407	-14.5545155	FOS + 60 M arc	FOS 60	38	39	1249.71	0.67



**Figure 27. Details of the outer limit of the continental shelf in the area abutting the Porcupine Abyssal Plain as agreed to by the Commission and as set out in Table 3. The Commission recommends that Ireland establish the outer limit of its continental shelf in the area on this basis.**