United Nations Convention on the Law of the Sea



Commission on the Limits of the Continental Shelf

SUMMARY OF RECOMMENDATIONS OF THE COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF IN REGARD TO THE PARTIAL REVISED SUBMISSION MADE BY BRAZIL IN RESPECT OF THE BRAZILIAN EQUATORIAL MARGIN ON 8 SEPTEMBER 2017

Recommendations prepared by the Subcommission established for the consideration of the partial revised Submission made by Brazil in respect of the Brazilian Equatorial Margin

Adopted by the Subcommission on 13 November 2024

Approved by the Commission, with amendments, on 27 February 2025¹

¹ 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 paragraph 11(3) of annex III to the Rules of Procedure. This Summary is based on excerpts of the Recommendations and may refer to material not necessarily included either in the full Recommendations or this Summary.

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GLOSSARY OF TERMS

60 M formula line	The line delineated by reference to fixed points not more than 60 nautical miles from the foot of the continental slope
60 M formula point	Fixed point not more than 60 nautical miles from the foot of the continental slope
200 M line	The line at a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured
2,500 m isobath	A line connecting the depth of 2,500 metres
Article 76	Article 76 of the Convention
Baselines	The baselines from which the breadth of the territorial sea is measured
BOS	The base of the continental slope
Commission	The Commission on the Limits of the Continental Shelf
Convention	The United Nations Convention on the Law of the Sea of 10 December 1982
Depth Constraint	The constraint line determined at a distance of 100 M from the 2,500 m isobath
Distance Constraint	The constraint line determined at a distance of 350 M from the baselines
Distance formula line	Line delineated by reference to fixed points determined at a distance of not more than 60 nautical miles from the foot of the continental slope
Distance formula point	Fixed point determined at a distance of not more than 60 nautical miles from the foot of the continental slope
DOALOS	Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations
FOS	Foot of the continental slope
Guidelines	The Scientific and Technical Guidelines of the Commission (CLCS/11 and CLCS/11/Add.1)
М	Nautical mile
Rules of Procedure	The Rules of Procedure of the Commission (CLCS/40/Rev.2, adopted on 20 August 2024, which supersede and replace earlier documents containing Rules of Procedure: CLCS/40/Rev.1 (11 April 2008) and CLCS/40 (2 July 2004))
Secretary-General	The Secretary-General of the United Nations
Sediment thickness formula line	The line delineated by reference to the outermost fixed points at each of which the thickness of sedimentary rocks is at least 1 per cent of the shortest distance from such point to the FOS
Sediment thickness formula point (STP)	Outermost fixed point at which the thickness of sedimentary rocks is at least 1 per cent of the shortest distance from that point to the FOS

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I. INTRODUCTION

- 1 On 8 September 2017, Brazil submitted to the Commission, through the Secretary-General,¹ information on the limits of the continental shelf beyond 200 M from the baselines from which the breadth of the territorial sea is measured in respect of the Brazilian Equatorial Margin, in accordance with paragraph 8 of article 76 of the Convention.
- 2 The Convention entered into force for Brazil on 16 November 1994.
- It is recalled that, on 17 May 2004, Brazil had made a Submission to the Commission. On 4 April 2007, the Commission adopted the *Recommendations of the Commission* on the Limits of the Continental Shelf in regard to the Submission made by Brazil on 17 May 2004 of Information on the Proposed Outer Limits of its Continental Shelf beyond 200 Nautical Miles. In these Recommendations the Commission recommended, inter alia, that Brazil "[...] make a revised or new submission in respect of the outer limits of its continental shelf beyond 200 nautical miles in the Northern and Amazonas Fan Region"² and with respect to the Northern Brazilian and Fernando De Noronha Ridges Region,³ that Brazil "[...] investigate whether the Test of Appurtenance can be satisfied from the base of the continental slope locations adjacent to the continental shelf and slope of the main land mass of Brazil at a depth of approximately 3,000 m"⁴ and "[...] investigate whether additional geophysical data and information might be required to support a submission for the determination of the outer limits of the continental shelf beyond 200 nautical miles."⁵
- 4 Pursuant to those Recommendations, Brazil made a partial revised Submission in respect of the Brazilian Equatorial Margin, on 8 September 2017 ("the Submission").
- 5 On 11 September 2017, the Secretary-General issued Continental Shelf Notification CLCS.2.REV2.2017.LOS⁶ giving due publicity to the Executive Summary of the partial revised Submission in accordance with rule 50 of the Rules of Procedure. Pursuant to rule 51 of the Rules of Procedure, the consideration of the partial revised Submission was included in the agenda of the forty-sixth session of the Commission.
- 6 Pursuant to section 2 of annex III to the Rules of Procedure, a presentation of the partial revised Submission was made to the plenary of the forty-sixth session of the

¹ On whose behalf the Submission was received by DOALOS.

² Paragraph 124 of the Recommendations of the Commission on the Limits of the Continental Shelf in regard to the Submission made by Brazil on 17 May 2004 of Information on the Proposed Outer Limits of its Continental Shelf beyond 200 Nautical Miles.

³ It is noted that the Submission made by Brazil on 17 May 2004 was divided into five regions. The present revised Submission in respect of the Brazilian Equatorial Margin comprises two of the regions in the 2004 Submission, namely the regions designated as the "Northern and Amazonas Fan Region" and "the Northern Brazilian and Fernando de Noronha Region." These regions in the 2004 Submission are designated as the "Amazons Fan Region" and "Norte Brasileira Ridge, Norte Brasileiro Plateau and Paracuru Plateau" regions in the present partial revised Submission.

⁴ Paragraph 145 of the Recommendations of the Commission on the Limits of the Continental Shelf in regard to the Submission made by Brazil on 17 May 2004 of Information on the Proposed Outer Limits of its Continental Shelf beyond 200 Nautical Miles.

⁵ Paragraph 147 of the Recommendations of the Commission on the Limits of the Continental Shelf in regard to the Submission made by Brazil on 17 May 2004 of Information on the Proposed Outer Limits of its Continental Shelf beyond 200 Nautical Miles.

⁶ See Continental Shelf Notification CLCS.2.REV2.2017.LOS at <u>https://www.un.org/Depts/los/clcs_new/submissions_files/bra02_rev17/clcs_2_rev_2_2017_Eng.pdf</u>.

Commission on 8 February 2018 by the head of the delegation of Brazil, Mauro Vieira, Permanent Representative of Brazil to the United Nations; Philip Fox D. Gough, Minister-Counsellor, Permanent Mission of Brazil to the United Nations; and Izabel King Jeck, Geologist, Directorate of Hydrography and Navigation, Brazilian Navy. The Delegation of Brazil also included a number of scientific, technical, naval and legal advisers. In addition to elaborating on substantive points of the Submission, Mr. Gough informed the Commission that one of its current members, Jair Alberto Ribas Marques,⁷ had assisted Brazil by providing scientific and technical advice and that the area of continental shelf covered by the Submission was not subject to any disputes.

- 7 The Commission received no communications from other States in relation to the Submission.
- 8 During the forty-ninth session, the Commission recalled its decision taken at the forty-sixth session⁸ that the Submission in respect of the Brazilian Equatorial Margin would be considered by the Subcommission established to consider the Submission of Brazil after it had completed its examination of the partial revised Submission in respect of the Brazilian Southern Region. The Commission recalled that the composition of that Subcommission was as follows: Lawrence Folajimi Awosika (Chair), Martin Vang Heinesen (Vice-Chair), Domingos de Carvalho Viana Moreira, Yong Ahn Park (Vice-Chair), Toshitsugu Yamazaki and Gonzalo Alejandro Yáñez Carrizo, with a seventh member to be appointed at a later stage.⁹
- 9 The Subcommission met at the fiftieth session, from 5 to 9 August 2019, to commence its consideration of the partial revised Submission and to conduct a preliminary analysis thereof pursuant to paragraph 5(1) of annex III to the Rules of Procedure.
- 10 The Subcommission commenced the main scientific and technical examination of the Submission on 14 October 2019, during the fifty-first session and analysed the partial revised Submission through to the fifty-seventh session.
- 11 At the fifty-eighth session of the Commission, owing to the expiration of the term of office of Members of the Commission and the partial change in membership of the Commission following the elections held at the thirty-second Meeting of States Parties to the Convention, the Commission appointed Harald Brekke, Miloud Loukili and Rajan Sivaramakrishnan to fill the vacancies in the Subcommission, joining Messrs. Moreira, Yamazaki and Yáñez, as members of the Subcommission. The Subcommission elected Mr. Yamazaki as its Chair and Messrs. Sivaramakrishnan and Yáñez as Vice-Chairs.
- 12 The Subcommission continued its analysis of the Submission from the fifty-eighth through to the sixty-second sessions. At the sixty-first session, the Commission appointed Artem Kireev as a member of the Subcommission. Furthermore, owing to the resignation of Mr. Loukili, the Commission appointed Tolojanahary Randriamiarantsoa to the Subcommission.
- 13 On 15 August 2024, during the sixty-second session, the Subcommission provided a comprehensive presentation of its views and general conclusions arising from the examination of the Submission in accordance with paragraph 10.3 of annex III to the Rules of Procedure. On 16 August 2024, the Delegation provided its response to the

⁷ Mr. Marques was a member of the Commission from 2012 to 2021.

⁸ CLCS/103, para. 65.

⁹ CLCS/100, para. 10 (b).

10.3 presentation by the Subcommission, pursuant to paragraph 10.4 of annex III to the Rules of Procedure.

- 14 In total, the Subcommission held 30 meetings with the Delegation in which it posed questions in writing and presented preliminary considerations involving documents and presentations. The Delegation provided responses to the questions posed both in writing and as presentations and provided additional material. The Subcommission conducted its interactions with the Delegation according to the Rules of Procedure and practice of the Commission.
- 15 The Subcommission adopted its Recommendations on 13 November 2024 and submitted them to the Commission for consideration and approval on 19 November 2024.
- 16 On 24 February 2025, the Subcommission made a presentation to the Commission of the substance and rationale for its Recommendations. On the same date, the Delegation made a presentation to the Commission in accordance with paragraph 15.1 bis of annex III to the Rules of Procedure.
- 17 The Commission approved these Recommendations on 27 February 2025, taking into consideration article 76 and annex II to the Convention, the Guidelines and the Rules of Procedure.
- 18 The Recommendations of the Commission are based on the scientific and technical data and other material provided by the Delegation in relation to the implementation of article 76. The Commission makes these Recommendations to Brazil in fulfilment of its mandate as contained in article 76 and in articles 3 and 5 of annex II to the Convention.
- 19 The Recommendations of the Commission only deal with issues related to article 76 and annex II to the Convention and shall not prejudice matters relating to delimitation of boundaries between States with opposite or adjacent coasts, or prejudice the position of States which are parties to a land or maritime dispute, or application of other parts of the Convention or any other treaties.
- 20 The Commission makes Recommendations to coastal States on matters related to the establishment of the outer limits of their continental shelf in accordance with article 76, paragraph 8 of the Convention. Pursuant to this paragraph, the limits of the continental shelf established by a coastal State on the basis of these Recommendations shall be final and binding.
- 21 Throughout the examination of the Submission, the Subcommission requested and received support from the Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs.

II. CONTENTS OF THE PARTIAL REVISED SUBMISSION

A. Original Submission

22 The Submission contained three parts: an Executive Summary; a Main Body which is the analytical and descriptive part; and Scientific and Technical Data.

B. Communications and additional material

23 In the course of the examination of the partial revised Submission by the Subcommission, the Delegation submitted additional material, including in response to questions and requests for clarification by the Subcommission.

24 In addition to the data contained in the Submission of 17 May 2004, the partial revised Submission contained substantial amounts of new data covering the entire margin in the Brazilian Equatorial Margin (Figure 1).



Figure 1*: Map of the data coverage of the Submission. (A) Multi-channel seismic lines, (B) Mini airgun seismic and sparker lines. Green: data used for the Submission in 2004, Blue: additional data used for the 2017 Submission. (C) Subbottom profiles, which were available only for the 2017 Submission.

III. EXAMINATION OF THE PARTIAL REVISED SUBMISSION BY THE SUBCOMMISSION

A. Examination of the format and completeness of the partial revised Submission

25 Pursuant to paragraph 3 of annex III to the Rules of Procedure, the Subcommission examined and verified the format and completeness of the Submission.

B. Preliminary analysis of the partial revised Submission

26 Pursuant to paragraph 5 of annex III to the Rules of Procedure, the Subcommission undertook a preliminary analysis of the partial revised Submission, in accordance with article 76 and the Guidelines and determined that:

^{*} The illustrative maps marked by an asterisk are prepared by the Subcommission or by the Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations, upon the request of the Subcommission established to consider the Submission made by Brazil on the basis of the submitted information. The designation employed and the presentation of material on these maps does not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

- (a) The outer edge of the continental margin, established from the FOS of the Region by applying the provisions of paragraph 4 of article 76 of the Convention, extends beyond the 200 M limits of Brazil to delineate the outer limits of its continental shelf beyond its 200 M limits in this region (i.e. the test of appurtenance for the region was satisfied by Brazil);
- (b) The question as to whether the proposed outer limits of the continental shelf of Brazil beyond 200 M in the Brazilian Equatorial Margin consist of an appropriate combination of foot of the continental slope points and constraint lines would be addressed in the context of the main scientific and technical examination of the Submission;
- (c) The construction of the outer limits contains straight line segments not exceeding 60 M in length;
- (d) The advice of any other member of the Commission and/or a specialist in accordance with rule 57 of the Rules of Procedure, or the cooperation of relevant international organizations, in accordance with rule 56, would not be sought; and
- (e) Additional time would be required to review all the data and to prepare its Recommendations during future sessions of the Commission.

C. Main scientific and technical examination of the partial revised Submission

- 27 Pursuant to paragraph 9, section IV of annex III to the Rules of Procedure, the Subcommission conducted an examination of the partial revised Submission based on the Guidelines and evaluated the following, as applicable:
 - (a) The data and methodology employed to determine the location of the FOS;
 - (b) The methodology used to determine the formula line at a distance of 60 M from the FOS;
 - (c) The data and methodology used to determine the formula line delineated by reference to the outermost fixed points at each of which the thickness of sedimentary rocks was at least 1 per cent of the shortest distance from such point to the FOS, or not less than 1 kilometre in the cases in which the Statement of Understanding applies;
 - (d) The data and methodology employed to determine the 2,500 metre isobath;
 - (e) The methodology used to determine the depth constraint line;
 - (f) The data and methodology used to determine the distance constraint line;
 - (g) The construction of the formulae line as the outer envelope of the two formulae;
 - (h) The construction of the constraint line as the outer envelope of the two constraints;
 - (i) The construction of the inner envelope of the formulae and constraint lines;
 - (j) The delineation of the outer limit of the continental shelf by means of straight lines not exceeding 60 M in length with a view to ensuring that only the portions/areas of the seabed that satisfy all the provisions of article 76 and the Statement of Understanding are enclosed;

- (k) The estimates of the uncertainties in the methods applied, with a view to identifying the main source(s) of such uncertainties and their effect on the Submission; and
- (I) Whether the data submitted are sufficient in terms of quantity and quality to justify the proposed limits.
- 28 In conducting its examination of the Submission, the Subcommission:
 - (a) Proceeded with a detailed examination of the data and information supporting every FOS point selected for the establishment of the outer edge of the continental margin;
 - (b) Sought clarifications, where necessary, through exchanges with the Delegation;
 - (c) Presented preliminary views and conclusions to the Delegation; and
 - (d) Made a comprehensive presentation of its views and general conclusions to the Delegation at an advanced stage of the examination of the Submission, as provided for in paragraph 10.3 of annex III to the Rules of Procedure.

IV. RECOMMENDATIONS OF THE COMMISSION WITH RESPECT TO THE EQUATORIAL MARGIN

1. Geographical and geological description

29 The present Submission is in the Equatorial Margin of Brazil between latitudes 2°S to 9°N, and consists mainly of the Amazonas Fan, fracture zones, several seamount chains, plateaux, and the Ceará Rise (Figure 2).



Figure 2*: Location map of the Submission. Morphological features of the seafloor, the 200 M limit (magenta), and the BOS as defined by Brazil (cyan). (A) The Amazonas Fan domain, and (B) the Norte Brasileira Ridge and associated plateaux domain. Lower left corner shows the total view of the Brazilian margin, highlighting the area of the present Submission.

30 Brazil describes that the Brazilian Equatorial Margin is a transform passive margin. The early stage of the passive margin evolution involved rifting processes characterized by normal faults, magmatic products, and transform faults, as shown in Figure 3. There, NW-SE rift segments alternate with W-E segments associated with fracture zones, which were produced by a pull-apart simple shear mode of deformation. This particular tectono-magmatic configuration compartmentalized distinct styles of oceanic basins when subsequent thermal subsidence and sedimentary loading took place (Mascle and Blarez, 1987).



Antobreh, 2009

Figure 3*: Tectonic context of the early stages of the opening of the Atlantic Ocean in a rifting/shearing setting, in which the area of the Submission is located. [Modified from Antobreh, 2009, Figure 2]

31 Two geographical domains with distinct geological evolution are identified in the present Submission (Figure 2): (1) the Amazonas Fan domain in the northwest, and (2) the Norte Brasileira Ridge and associated plateaux domain in the southeast.

1.1 <u>The Amazonas Fan domain</u>

32 According to Brazil, the Amazonas Fan covers an area of 360,000 km² with a sedimentary volume of 700,000 km³, which is bound to the north by the Demerara Abyssal Plain, to the northeast by the Ceará Rise, and to the east by the Ceará Abyssal Plain (Figure 2). The Amazonas Fan morphology reflects the action of depositional processes and gravitational tectonics, presenting a complex sedimentary architecture formed by channel-levee systems, terminal lobes, and mass transport deposits (MTD). The Ceará Rise obstructs the sediment transport of the Amazonas Fan to the northeast. The southeastern part of the Amazonas Fan is characterized by a megaslide complex, which is constrained also by the NW-SE orientation of the Ceará Rise.

- 33 Brazil explains that the origin of the Amazonas River system dates to middle late Miocene (Hoorn, 1994). Between 11.8 and 11.3 Ma, the Amazonas River became a transcontinental river, when sediments from the Andes reached, for the first time, the Foz do Amazonas Basin (Hoorn, 1994; Figueiredo et al., 2009). During late Pliocene to Pleistocene, the drainage volume, configuration and the modern dimensions of the fan were established (Dobson et al., 2001). Throughout the Quaternary, turbidity currents have significantly and constantly [influenced] the Amazonas Fan. The sedimentary load deposited by these currents is a mix of silts and sands, with the silt fraction predominating (Pirmez and Imran, 2003).
- 34 According to Brazil, the base of the channel deposits, characterized by vertical stacking of high amplitude seismic reflectors (Flood et al., 1991), is composed of massive conglomeratic sands (Damuth, 2002) (Figure 4). Marginal levees are found adjacent to these deposits, showing the wedge-like typical morphology. They are basically made up of silts and clays and reach thicknesses of 70 m. In the distal portion of the channel-levee systems of the Amazonas Fan, in low gradient seabed areas, the sediments transported by gravitational flows channelled along hundreds of kilometres spread out and form a complex of depositional lobes whose composition is marked by the prevalence of sands in water depths of 4,100 m to 4,700 m (Damuth, 2002; Jegou et al., 2008).



Figure 4: Well-developed channel-levee system in the Amazonas Fan. [Figure 25 of the Main Body]

1.2 The Norte Brasileira Ridge and associated plateaux domain

35 The Norte Brasileira Ridge extends along approximately 1,000 km and is formed by the alignment of seamounts in three different segments: i) a W-E segment near the equator, denominated the W-E North segment, ii) a NW-SE segment and iii) another W-E segment denominated the W-E South segment (Figure 5).



Figure 5*: Morphological features in the Norte Brasileira Ridge and associated plateaux domain, the BOS defined by Brazil (cyan), and the 200 M limit (magenta). Panel B of Figure 2. (Bathymetric colour scale as per Figure 2)

36 The Norte Brasileira Ridge acted as a barrier for the sedimentary flows derived from the continent, confining the sediments in the Norte Brasileiro and Paracuru plateaux. According to Brazil, the extensive sediment thickness underlying the Norte Brasileiro Plateau indicates a large deep pull-apart basin, which developed during the W-E right-lateral separation of the South American and African plates, along the Romanche and Sao Paulo transform faults (Figure 3). To the southeast of the Norte Brasileiro Plateau, a series of seamounts parallel to the margin left some small basins and terraces (Ceará Terrace and Paracuru Plateau), which trap the sediments coming from the continent (Figure 5).

2. The determination of the foot of the continental slope (article 76, paragraph 4(b))

37 The FOS shall be established in accordance with article 76, paragraph 4(b), of the Convention.

2.1 Considerations

38 In this Submission, the identification of the BOS was based on morphologic and bathymetric evidence, supplemented by geological and geophysical data. The location of the BOS as submitted in the revised Submission of 8 September 2017 is shown in Figure 6, which also shows the approximate location of the depth interval proposed for searching the BOS in the recommendations of 4 April 2007 to the original Submission.



Figure 6*: Outline of the BOS identified by Brazil in its revised Submission of 8 September 2017 (light blue). Also shown in red, for reference, is the depth interval proposed for searching the BOS in the recommendations of 4 April 2007 to the original Submission. [Modified from Figure 73 of the Main Body]

- 39 In this Submission, Brazil submitted new data and information that includes multibeam bathymetry and seismic data (Figure 1), as well as new geological and sedimentological interpretations. These new data and information were used by Brazil to identify the BOS seaward of that recommended to the original Submission.
- 40 The Subcommission divides the Amazonas Fan domain into two morphologically and geologically distinctive regions for consideration: the NW Amazonas Fan, and the SE Amazonas Fan (Figure 7). The NW Amazonas Fan region includes the northwestern and central portion of the Amazonas Fan. The SE Amazonas Fan region is characterized by the occurrence of a large submarine landslide, the Pará-Maranhão Megaslide Complex.
- In the Submission, 14 FOS points determined by the maximum change in the gradient at its base were used to generate formula points and lines beyond the 200 M (Figure 7). Brazil denominated those FOS points used to define the outer limit of the continental shelf beyond 200 M as critical, and those used to contribute to the determination of the formulae line beyond the constraints as relevant. FOS points FOS-2, 3, 6, and 7 are located in the NW Amazonas Fan region, and FOS-8 and 11 are located in the SE Amazonas Fan region. In the Norte Brasileira Ridge and associated plateau domain, eight FOS points, FOS-21, 25, 26, 27, 37, 39, 47, and 49, are located. The evidence to the contrary rule of paragraph 4 (b) of article 76 was not applied by Brazil.



Figure 7*: BOS (cyan), FOS points initially identified by Brazil (black: critical and relevant; yellow: critical; red: relevant; blue: others), and the 200 M limit (magenta). Dash-dot black boxes indicate the subdivision of the Submission area made by the Subcommission for consideration. (Bathymetric colour scale as per Figure 2)

2.1.1 NW Amazonas Fan region

42 The northwestern and central portion of the Amazonas Fan is traditionally divided into the upper, middle and lower fan (Damuth et al., 1983; Damuth and Flood, 1983) (Figure 8). The upper-middle fan boundary generally corresponds to a break in seafloor gradient around 3,000 m, and the middle-lower fan boundary is a zone of transition from the channel-levee dominated region to the terminal lobe dominated region around 4,000 m with another break in seafloor gradient.



Figure 8*: Physiographic division of Amazonas Fan into the upper, middle, and lower fan (Damuth et al., 1983). The boundaries between the upper and middle fan and middle and lower fan are highlighted in yellow. [Modified from Figure 6 of the Main Body]

- 43 According to the revised Submission of 8 September 2017, the classification into the upper, middle and lower fan is only valid for descriptive purposes and should not be considered as a geologic or physiographic subdivision of the feature (Main Body, para 61; with reference to Damuth et al., 1988).
- 44 The gradient band analysis conducted by the Subcommission shows a consistent break in seafloor gradient in the region of the BOS identified by Brazil in the NW

Amazonas Fan region (Figure 9). There the Subcommission observes a change in the seafloor gradient, from typically $\leq 0.2^{\circ}$ on the seaward side to $0.2^{\circ} - 0.5^{\circ}$ on the landward side. Seismic profiles also show a seafloor gradient change that roughly corresponds to the boundary of the middle/lower fan, as well as another gradient change near the boundary of upper/middle fan (Figure 10).



Figure 9*: Seafloor gradient contour map of the NW Amazonas Fan region. FOS points 1-7 (red dots) are generally located along a well-defined change in the seafloor gradient as illustrated by the narrow spacing of the contours around 0.3°.



Figure 10*: Example of the change in the seafloor gradient in the NW Amazonas Fan region along seismic line B6_seq211.

- 45 According to Brazil, the geological processes that occurred throughout, from the upper to middle fan, are very similar and thus allow the upper and middle fan to be considered as a single geologic and physiographic entity. Brazil located the BOS at the transition from the domain of meandering channels and MTD to the domain of terminal lobes of turbidite channels. The transition accompanies in general a seafloor gradient decrease, which causes the loss of competence of the channels and consequent sand deposition.
- 46 The Subcommission notes that in submarine fans, sediments are provided mainly by turbidites, which occur intermittently. In turbidite bodies, particle size and concentration decrease from the bottom to top. The lower and major part of turbidite bodies, which consists mainly of sands, passes through channels and is transported to lobes. On the other hand, the upper, lighter muddy part sometimes overbanks and deposits as levees (Figure 11).



Figure 11*: Cartoon showing turbidites flowing along channel-levees.

- 47 The upper and middle fan of the NW Amazonas Fan region is dominated by channellevee complexes, and the lower fan is dominated by lobes. In the upper and middle fan, more than 70 per cent of sediments are mud (clay), whereas in the lower fan more than 70 per cent of sediments are sand (Piper and Normark, 2001). This sediment compositional difference indicates that deposition of sand occurs mainly in the lobe area, but not in the channel-levee area. This difference is interpreted as the lobe area as indicative of a rise environment, whereas the channel-levee area is indicative of a slope environment. The transition from the channel-levee dominated area to the terminal lobe dominated area indicates a change from a relatively high energy slope environment to a lower energy rise environment. Thus, this transition can be geological supporting evidence that the seafloor gradient change observed near the boundary between the middle and lower fan represents the BOS.
- 48 Seismic sections crossing the BOS in the NW Amazonas Fan region confirm that the BOS identified by Brazil coincides with a transition zone from an area with a rugged, chaotic surface morphology dominated by channel-levee deposits to an area of considerably smoother surface morphology dominated by terminal lobes (Figure 12).



Figure 12*: Examples of multi-channel seismic and subbottom profiler profiles across the BOS on line B6_seq211 (left) along which FOS-2 was identified and line B3_4_seq254 (right) along which FOS-6 was identified by Brazil in the NW Amazonas Fan region, showing the transition from an area dominated by channel-levees to an area of terminal lobes. Vertical dotted magenta line: 200 M, Cyan arrows: BOS.

- 49 Consequently, the Subcommission agreed with Brazil regarding the location of the BOS in the NW Amazonas Fan region (Figure 7).
- 50 In this region, Brazil identified FOS-2, 3, 6, and 7 as critical and/or relevant FOS points (Figure 7). The Subcommission agreed on FOS-3 and FOS-6 as originally submitted. After an exchange of views, the Subcommission agreed on the revised FOS points FOS-2-Rev and FOS-7-Rev, in which some minor location adjustments were conducted.

2.1.2 SE Amazonas Fan region

51 The geomorphology and geology of the SE Amazonas Fan region are characterized by the occurrence of a large submarine landslide, the Pará-Maranhão Megaslide Complex. The megaslide originates from the steep upper slope at depths between 2,000 m and 2,500 m, and extends mainly towards the east and northeast, reaching the Ceará Rise (Figure 13). In the distal part, lateral confinement of the megaslide caused pressure ridges near the Ceará Rise.



LATERALLY-CONFINED MTD

Figure 13: Map showing the distribution of the uppermost and youngest submarine landslide of the Pará-Maranhão Megaslide Complex (PM4) and the BOS/FOS locations identified by Brazil. [From Slide 35 from presentation BR_EM_26JUL2023]

52 The gradient band analysis shows that a zone of gradient change similar to that of the NW Amazonas Fan Region exists landward with respect to the BOS proposed by Brazil (Figure 14). However, based on new seismic profiles submitted during exchanges of views with the Subcommission, Brazil demonstrated that the morphological high close to FOS-8 and 9 is a preserved mega block with channellevee structures of the Amazonas Fan inside, which resisted the megaslide event. Additional bathymetric profiles provided by Brazil show clear regional gradient changes on the northern and eastern sides of the preserved block. In the BOS near FOS 11 and 12, gravity collapse faults indicative of slope instability are recognized on seismic profiles, and a regional change in the seafloor gradient is discernible there (Figure 15). Brazil also provided additional subbottom profiles showing slope instability features such as creep and collapse faults near and landward of the proposed BOS zone (Figure 16).



Figure 14*: Gradient band analysis in the SE Amazonas Fan region (dashed rectangle); red circles: submitted FOS points; cyan: submitted BOS zone.



Figure 15*: Seismic profiles across the BOS near FOS 11 and 12 showing gravity collapse features. A: line B3_8_seq393, B: line B3_9_seq395.



Figure 16*: Subbottom profile (line 506LP2402) showing slope instability features.

- 53 Consequently, the Subcommission agreed with Brazil regarding the location of the BOS in the SE Amazonas Fan region near FOS-8 to 13 (Figure 13).
- 54 In this region, Brazil identified two FOS points, FOS-8 and 11, as critical (Figure 13). Regarding FOS-8, the Subcommission proposed not to use this as a valid FOS point because there is no significant change in gradient, and considering that the existence of pressure ridges does not necessarily imply a slope environment (Figure 17). On the other hand, clear evidence of a regional change of gradient is observed at FOS-9 (Figure 17). Brazil agreed with the Subcommission to drop FOS-8, and consider FOS-9 for delineating the outer edge of the continental margin. The Subcommission agreed on the locations of the FOS points FOS-9 and 11.



Figure 17*: Seismic lines across FOS-8 (upper) and FOS-9 (lower).

2.1.3 The Norte Brasileira Ridge and associated plateaux domain

- 55 According to Brazil, the extensive sediment thickness underlying the Norte Brasileiro Plateau and the rhombic shape indicate a deep pull-apart basin, which developed during the W-E right-lateral separation of the South American and African plates along the Romanche and Sao Paulo transform faults. The outer flank of the Norte Brasileiro Plateau borders the Ceará Abyssal Plain at about 4,400 m in depth. Brazil identified the BOS on the outer flank of the seamounts of the W-E North and NW-SE segments of the Norte Brasileira Ridge (Figure 2).
- 56 The Subcommission observed morphological continuity from the mainland to the Norte Brasileiro Plateau and a clear morphological offset between the Norte Brasileiro Plateau and the Ceará Abyssal Plain (Figure 18). On seismic and subbottom profiles, the Subcommission observed various features indicative of slope instability, including creep, slope collapse, and surface erosion, in many localities in the Norte Brasileiro Plateau (Figure 19). Consequently, the Subcommission agreed with Brazil the location of the BOS to the north of the W-E North segment and to the east of the NW-SE segment of the Norte Brasileira Ridge.



Figure 18*: Seismic profiles across the Norte Brasileiro Plateau, showing the offset with respect to the Ceará Abyssal Plain. Cyan band in the right panel shows BOS identified by Brazil.



Figure 19: Evidence of slope instability in the Norte Brasileiro Plateau on subbottom profiles. A: erosion (line S4_seq200), B: creep (line B11_seq358), C: slide scar (line B13_seq352).

- 57 Regarding the Paracuru Plateau, the Subcommission observed morphological continuity from the mainland to the Paracuru Plateau (Figure 20, profile A). The Paracuru Plateau is elevated by at least 300 m with respect to the Ceará Abyssal Plain. Consequently, the Subcommission agreed on the BOS definition by Brazil along the outer flanks of the seamounts that limit the Paracuru Plateau.
- 58 Brazil described that the Norte Brasileira Ridge W-E South segment continues eastward from the Paracuru Plateau, and identified the BOS as outlining its northern flank. The Subcommission observed morphological continuity from the mainland to the Norte Brasileira Ridge W-E South Segment (Figure 20, profile B). This ridge segment is elevated about 1,000 m from the abyssal plain. Consequently, the Subcommission agreed on the BOS definition of Brazil along the Norte Brasileira Ridge W-E South segment.



Figure 20*: Bathymetric profiles showing morphological continuity of the Paracuru Plateau and the Norte Brasileira Ridge W-E South segment from the mainland, which are elevated above the Ceará Abyssal Plain. In the middle panel, cyan: BOS identified by Brazil, pink: 200 M. [Modified from BR EM 27 Jul. 2023]

59 In the Norte Brasileira Ridge region, Brazil initially identified FOS-21, 25, 26, 27, 37, 39, 47, and 49 as critical FOS points (Figure 7). After the revision of sediment thickness estimations mentioned below, Brazil identified FOS-21, 25, 26, 27, 38, 39, 47, 49 and 63 as critical FOS points (Figure 21). The Subcommission agreed on FOS-25, 26, 38, 49 and 63 as submitted, and FOS-21-Rev, 27-Rev, 39-Rev, and 47-Rev after minor adjustments of their locations.



Figure 21*: Final critical FOS points identified by Brazil in the Norte Brasileira Ridge region (red stars). Also shown BOS: cyan; 200 M: magenta. (Bathymetric colour scale as per Figure 2)

2.2 <u>Recommendations</u>

60 Based on the morphological information used to identify the position of the BOS and supporting geological information the Commission recommends on the position of the BOS in the Brazilian Equatorial Margin as presented in Figure 7. In that context the Commission concludes that, in the Brazilian Equatorial Margin, the FOS points shown in Figure 22 and listed in Table 1 of annex I fulfil the requirements of article 76 and Chapter 5 of the Guidelines. The Commission recommends that these FOS points should form the basis for the establishment of the outer edge of the continental margin in the Brazilian Equatorial Margin.



Figure 22*: Map showing the final critical and/or relevant FOS positions (red stars); cyan: BOS; magenta: 200 M. (Bathymetric colour scale as per Figure 2)

- 3. The establishment of the outer edge of the continental margin (article 76, paragraph 4(a))
 - 61 The outer edge of the continental margin of the Brazilian Equatorial Margin shall, for the purposes of the Convention, be established in accordance with paragraph 4(a) of article 76 of the Convention.

3.1 The application of the 60 M distance formula (article 76, paragraph 4(a)(ii))

62 In the Brazilian Equatorial Margin, the distance formula line is constructed at not more than 60 M from 15 critical and relevant FOS points, in accordance with the provisions contained in paragraph 4(a)(ii) of article 76 of the Convention (Figure 23).



Figure 23: Application of the 60 M distance formula (orange) based on the 15 critical and relevant FOS points (red stars). Yellow arcs are based on other FOS points that were not considered by the Subcommission. They are not used for constructing the outer edge of the continental margin. Also shown magenta: 200 M. (Bathymetric colour scale as per Figure 2)

- 63 The Commission agrees with the procedure and accuracy by which these points have been constructed by Brazil in the Brazilian Equatorial Margin.
- 3.2 The application of the 1 per cent sediment thickness formula (article 76, paragraph 4(a)(i))
 - 64 In the Brazilian Equatorial Margin, Brazil initially submitted 23 fixed points based on the sediment thickness provision of paragraph 4 (a)(i) of article 76 of the Convention (Figure 24). Brazil proposed these 1 per cent sediment thickness points based on velocity analyses of the seismic data in the vicinity of the 1 per cent sediment thickness points (seismic profile tracks in Figure 24).



Figure 24: One per cent sediment thickness points originally submitted by Brazil (brown dots), and seismic lines used to define them (green). Also shown outer edge of continental margin: white; critical FOS points: yellow star; relevant FOS points: red star; critical and relevant FOS points: black star; distance formula line: yellow; 200 M limit: dark blue. [Figure 75 of the Main Body]

65 Given the disparity in the quality of the multi-channel seismic data, which includes partial low quality semblance plots and uncertainties in the application of the Dix equation, the Subcommission suggested that Brazil may determine an empirical regional TWT-depth model for estimating sediment thickness. Brazil established two regional empirical models accordingly considering the different geological settings in the Submission area: one for the Amazonas Fan domain, and the other for the Norte Brasileira Ridge and associated plateaux domain (Figure 25). In constructing the regional empirical models, Brazil used 23 multi-channel seismic and 660 semblance analyses for the Amazonas Fan domain, and 12 multi-channel seismic lines and 414 semblance analyses for the Norte Brasileira Ridge and associated plateaux domain, respectively.



Figure 25*: Empirical regional TWT-depth models established by Brazil. (A) Amazonas Fan domain, (B) Norte Brasileira Ridge and associated plateaux domain. (C) Portions of seismic profiles used for this calculation, where the seismic profiles show relatively uniform sedimentation and clear basement (pink for the Amazonas Fan domain, green for the Norte Brasileira Ridge and associated plateaux domain). Also shown BOS in cyan.

66 Brazil showed that these empirical models are in agreement with global models (Al Chalabi,1997; Nafe and Drake, 1957; Hamilton, 1985), as well as seismic velocity estimations in nearby areas based on seismic refraction data. The Subcommission confirmed the methodology used and the resulting empirical models established by Brazil.

- 67 Based on sediment thickness calculation using these empirical models, Brazil constructed the sediment thickness formula line to be defined by twenty-five revised sediment thickness formula points. This process was also accompanied by the revision of some critical FOS points mentioned in paragraph 59 above.
- 68 The Subcommission examined the basement picks presented by Brazil and requested clarifications and adjustments for some 1 per cent sediment thickness points. Figure 26 presents examples of the basement picks in the Amazonas Fan domain and Norte Brasileira Ridge and associated plateaux domain. The Subcommission agreed with the basement picks at all final 1 per cent sediment thickness points presented by Brazil.



Figure 26*: Examples of the basement picks in the Amazonas Fan domain and the Norte Brasileira Ridge and associated plateaux domain.

69 The Subcommission concluded that sediment continuity, as outlined in paragraph 8.5.3 of the Guidelines, is proved by the sediment thickness map provided by Brazil, which is based on the dense coverage of seismic lines (Figure 27).



Figure 27*: Final 1 per cent sediment thickness points (brown diamond) superimposed on sediment thickness map. Star: related FOS points (black: critical and relevant; yellow: critical; red: relevant). [Modified from 1-BR-EM_FOS&STPAGU2024]

70 The Commission agrees with the procedure and accuracy by which Brazil established the twenty-five sediment thickness formula points utilizing FOS points on the continental margin of the Brazilian Equatorial Margin (Figure 27) including the data provided, the seismic interpretation, the methods of depth conversion, and the distance calculations. These sediment thickness formula points are listed in Table 2 of annex I to these Recommendations.

3.3 <u>Configuration of the Outer Edge of the Continental Margin</u>

71 In the Brazilian Equatorial Margin, the outer edge of the continental margin extends in a southwestward direction beyond the 200 M line of Brazil from the border with France in respect of the area of French Guiana towards the Norte Brasileira Ridge W-E South segment (Figure 28).



Figure 28*: Map of the outer edge of the continental margin of the Brazilian Equatorial Margin (white line). Also shown sediment thickness formula points: yellow circle; critical, relevant and critical and relevant FOS points: red star; distance formula line: orange/yellow as per Figure 23; 200 M limit: dark magenta; BOS: cyan. (Bathymetric colour scale as per Figure 2)

3.4 <u>Recommendations</u>

72 In the Brazilian Equatorial Margin, the outer edge of the continental margin of Brazil beyond 200 M is based on 25 sediment thickness formula points as described in section 3.2 and 13 distance formula points as described in section 3.1 above (Figure 28). The fixed points are listed in Table 3 of annex I to these Recommendations. The Commission recommends that these points be used as the basis for delineating the outer limits of the continental shelf in this region, subject to the application of the relevant constraints (see section 4 below).

4. The application of the constraint criteria (article 76, paragraphs 5 and 6)

73 The outer limits of the continental shelf cannot extend beyond the constraints as per the provisions contained in paragraphs 5 and 6 of article 76 of the Convention. The fixed points comprising the line of the outer limits of the continental shelf on the seabed either shall not exceed 350 M from the baselines (the distance constraint), or, shall not exceed 100 M from the 2,500 metre isobath (the depth constraint).

4.1 <u>The construction of the distance constraint line</u>

74 The distance constraint line submitted by Brazil in the Brazilian Equatorial Margin is constructed by arcs at 350 M distance from the baselines from which the breadth of the territorial sea of Brazil is measured (Figure 29). The Commission agrees with the procedure and methods applied by Brazil in the construction of this constraint line.

Figure 29: Map of the Brazilian Equatorial Margin showing the Brazil-French Guiana maritime boundary line, the 200 M line of Brazil, the outer edge of continental margin, the 350 M constraint line and the outer limits of the continental shelf. [Figure BR-EM_OL&350M]

4.2 <u>The construction of the constraint line</u>

75 In the Brazilian Equatorial Margin, Brazil has applied a constraint line based only on the distance constraint constructed in accordance with paragraph 5 of article 76 of the Convention (see section 4.1 above). The Commission agrees with the way this constraint line has been constructed.

5. The outer limits of the continental shelf (article 76, paragraph 7)

76 The outer limits of the continental shelf result from the application of the distance constraint line determined according to paragraph 75 above, to the outer edge of the continental margin, determined according to paragraph 72 above. In this regard the Subcommission noted that an appropriate combination of FOS points and constraint lines had been used. The outer limits of the continental shelf of the Brazilian Equatorial Margin consist of fixed points connected by straight lines not exceeding 60 M in length (Figure 29).

6. Recommendations for Brazil (article 76, paragraph 8)

- 77 The Commission recommends that the delineation of the outer limits of the continental shelf in the Brazilian Equatorial Margin be conducted in accordance with paragraph 7 of article 76 of the Convention by straight lines not exceeding 60 M in length, connecting fixed points, defined by coordinates of latitude and longitude listed in Table 4 of annex I to these Recommendations.
- The Commission recommends that Brazil proceeds to establish the outer limits of 78 the continental shelf in the Brazilian Equatorial Margin from fixed point 002-BR-OL-EM-REV to fixed point 463-BR-OL-EM-REV, accordingly. In order not to prejudice maritime boundary delimitation between Brazil and France, the Commission does not recommend on establishment of the outer limits in this area. The Commission recommends, that the final outer limit position, at its western end, should lie at the intersection of the maritime boundary line between Brazil and France and an outer edge straight line segment not exceeding 60 M in length connecting valid outer edge fixed points (001-BR-OECM-EM-REV two and 002-BR-OECM-EM-REV). The Commission recommends that the outer limits of the continental shelf, at its eastern end, should connect to the 200 M line of Brazil at a fixed point at the intersection with the line connecting outer edge fixed points 037-BR-OECM-EM-REV and 038-BR-OECM-EM-REV.

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ANNEX I

TABLES OF GEOGRAPHICAL COORDINATES OF: THE FOOT OF THE CONTINENTAL SLOPE POINTS, THE SEDIMENT THICKNESS FORMULA POINTS, THE OUTER EDGE OF THE CONTINENTAL MARGIN BEYOND 200 M AND THE OUTER LIMITS OF THE CONTINENTAL SHELF BEYOND 200 M AS RECOMMENDED BY THE COMMISSION, BASED ON THE PARTIAL REVISED SUBMISSION MADE BY BRAZIL IN RESPECT OF THE BRAZILIAN EQUATORIAL MARGIN

EQS Doint	Longitude	Latitude	DEPTH
FOS Point	(DD.DEC)	(DD.DEC)	(m)
02-BR-FOS-EM-B6-Rev	-48.1648674	6.6266559	4036.90
03-BR-FOS-EM-B7	-47.6936788	6.3462996	3957.48
06-BR-FOS-EM-B3_4	-46.4918716	5.3484208	3663.52
07-BR-FOS-EM-B4-Rev	-46.2802740	4.9433552	3730.55
09-BR-FOS-EM-B3_7	-45.2020842	3.5421204	3886.41
11-BR-FOS-EM-B3_8	-44.0982254	3.1393613	4220.64
21-BR-FOS-EM-S4-Rev	-41.5815682	0.6235051	4168.70
25-BR-FOS-EM-B13	-39.8022751	0.9817258	4250.50
26-BR-FOS-EM-S6	-39.5589754	0.4672915	4342.50
27-BR-FOS-EM-500-0505-Rev	-39.2708333	0.0875000	4224.00
38-BR-FOS-EM-part1_B21_H	-37.3947812	-1.3925267	4013.00
39-BR-FOS-EM-500-0502-Rev	-37.1961098	-1.4672222	4292.00
47-BR-FOS-EM-part5_B21_1-Rev	-35.3702929	-1.6481096	4113.70
49-BR-FOS-EM-part6_B21_I	-35.0087300	-1.5785554	4222.80
63-BR-FOS-EM-506LP2421	-39.2512933	0.0609772	4267.50

Table 1. Coordinates of the foot of the continental slope points (Document 6- BR-EM-FOS-AUG2024 provided by Brazil on 27 September 2024)

STP Name	Longitude (GG.DEC)	Latitude (GG.DEC)	Depth (m)	Sedim Thick (m)	Distance to FOS (M)	FOS Point	FOS Profile	Line	SP	Bottom (sec)	Basement (sec)	Sedim Thick (%)
01-BR-STP-EM-REV	-48.2507754	8.7966534	4545	2402	240177	2-BR-FOS-EM-B6-Rev	B6	S17_seq208	5,088	6.0600	8.1898	1.000
02-BR-STP-EM-REV	-47.8071036	8.7008122	4553	2334	232761	2-BR-FOS-EM-B6-Rev	B6	S16_seq246	1,050	6.0710	8.1492	1.003
03-BR-STP-EM-REV	-46.8564338	8.3661354	4514	2526	240547	2-BR-FOS-EM-B6-Rev	B6	S16-S14_seq247	2,333	6.0190	8.2417	1.050
04-BR-STP-EM-REV	-46.7347548	8.3427024	4515	2509	244859	3-BR-FOS-EM-B7	B7	S16-S14_seq247	2,606	6.0200	8.2301	1.025
05-BR-STP-EM-REV	-46.4056291	7.4728374	4326	1894	189167	3-BR-FOS-EM-B7	B7	B5_1_seq230	5,080	5.7680	7.5045	1.001
06-BR-STP-EM-REV	-46.2365557	7.3610807	4307	1963	196297	3-BR-FOS-EM-B7	B7	B3_2_seq232	554	5.7430	7.5343	1.000
07-BR-STP-EM-REV	-45.7462747	7.0036843	4268	2030	200791	6-BR-FOS-EM-B3_4	B3_4	B3_3_seq252_01	5,268	5.6910	7.5351	1.011
08-BR-STP-EM-REV	-45.476928	6.1579304	4157	1438	143706	6-BR-FOS-EM-B3_4	B3_4	B3_4_seq254	938	5.5420	6.9045	1.001
09-BR-STP-EM-REV	-44.9430807	5.5920739	3876	1812	164677	7-BR-FOS-EM-B4-Rev	B4	500-0536A	2,622	5.1680	6.8390	1.101
10-BR-STP-EM-REV	-44.8746214	5.0984332	4078	1641	156821	7-BR-FOS-EM-B4-Rev	B4	S10_seq235	6,830	5.4370	6.9689	1.047
11-BR-STP-EM-REV	-44.2697485	4.7857516	4126	1723	172125	9-BR-FOS-EM-B3_7	B3_7	B3_6_seq389	9,787	5.0100	7.0900	1.001
12-BR-STP-EM-REV	-43.7415961	4.3468417	3096	1538	139275	11-BR-FOS-EM-B3_8	B3_8	501-0032A	9,808	4.1280	5.5740	1.104
13-BR-STP-EM-REV	-43.4790616	4.0424838	3143	1729	121265	11-BR-FOS-EM-B3_8	B3_8	B3_7_seq391	1	4.1900	5.7939	1.426
14-BR-STP-EM-REV	-42.9188819	3.4465502	4308	1365	135399	11-BR-FOS-EM-B3_8	B3_8	S2_seq204	1,030	5.7440	7.0442	1.008
15-BR-STP-EM-REV	-42.6107411	3.1911625	4324	1683	165434	11-BR-FOS-EM-B3_8	B3_8	GB1-4500	53,553	5.7657	7.3317	1.017
16-BR-STP-EM-REV	-42.3344386	2.8831888	4331	1995	198110	11-BR-FOS-EM-B3_8	B3_8	S3_seq202	10,145	5.7740	7.5906	1.007
17-BR-STP-EM-REV	-42.0353439	2.2895838	4345	1912	191022	21-BR-FOS-EM-S4-Rev	S4	501-0029A	3,507	5.7930	7.5437	1.001
18-BR-STP-EM-REV	-41.3608664	2.325442	4362	1901	189788	21-BR-FOS-EM-S4-Rev	S4	S4_seq200	1,874	5.8160	7.5578	1.001
19-BR-STP-EM-REV	-40.5839478	1.7988224	4394	1257	125421	25-BR-FOS-EM-B13	B13	S5_seq198	5,390	5.8580	6.9978	1.002
20-BR-STP-EM-REV	-39.2315762	2.4757332	4436	1904	176984	25-BR-FOS-EM-B13	B13	S6_seq186	10,341	5.9140	7.5151	1.076
21-BR-STP-EM-REV	-38.4867445	1.2563779	4293	1486	147839	26-BR-FOS-EM-S6	S6	S7_seq190	1,152	5.7240	7.0332	1.005
22-BR-STP-EM-REV	-37.4953853	0.7016111	4489	2086	207902	63-BR-FOS-EM-506LP2421	506LP2421	S8-S9_seq193	1,774	5.9850	7.7066	1.003
23-BR-STP-EM-REV	-36.768368	0.1237176	4490	1817	181579	38-BR-FOS-EM-part1_B21_H	part1_B21_H	500-0548A	4,746	5.9860	7.5284	1.001
24-BR-STP-EM-REV	-36.538112	-0.633032	4454	1181	117778	39-BR-FOS-EM-500-0502-Rev	500-0502	500-0502	5,799	5.9390	7.0200	1.002
25-BR-STP-EM-REV	-35.1484517	-0.1430903	4508	1597	159486	49-BR-FOS-EM-part6_B21_I	part6_B21_I	500-0501	9,902	6.0110	7.4000	1.001

Table 2. Coordinates of fixed points defining the sediment thickness formula points (Document BR-EM-AppendixC-
revisedAUG24 provided by Brazil on 14 August 2024)

	Longitudo	Longitude Latitude		Distance to	Distance to	
OECM point	(DD DFC)	(DD DFC)	Criterion	previous	previous	Relevant FOS Point
	(DD.DEC)	(DD.DEC)	CITTETION	point (m)	point (M)	
001-BR-OECM-EM-REV	-48.2507754	8.7966534	1% STP			2-BR-FOS-EM-B6-Rev
002-BR-OECM-EM-REV	-47.8071036	8.7008122	1% STP	49955.98	26.97	2-BR-FOS-EM-B6-Rev
003-BR-OECM-EM-REV	-46.8564338	8.3661354	1% STP	111016.47	59.94	2-BR-FOS-EM-B6-Rev
004-BR-OECM-EM-REV	-46.7347548	8.3427024	1% STP	13650.72	7.37	3-BR-FOS-EM-B7
005-BR-OECM-EM-REV	-46.4056291	7.4728374	1% STP	102820.73	55.52	3-BR-FOS-EM-B7
006-BR-OECM-EM-REV	-46.2365557	7.3610807	1% STP	22385.90	12.09	3-BR-FOS-EM-B7
007-BR-OECM-EM-REV	-45.7462747	7.0036843	1% STP	67042.55	36.20	6-BR-FOS-EM-B3_4
008-BR-OECM-EM-REV	-45.476928	6.1579304	1% STP	98159.61	53.00	6-BR-FOS-EM-B3_4
009-BR-OECM-EM-REV	-44.9430807	5.5920739	1% STP	86084.74	46.48	7-BR-FOS-EM-B4-Rev
010-BR-OECM-EM-REV	-44.8746214	5.0984332	1% STP	55113.56	29.76	7-BR-FOS-EM-B4-Rev
011-BR-OECM-EM-REV	-44.2697485	4.7857516	1% STP	75472.02	40.75	9-BR-FOS-EM-B3_7
012-BR-OECM-EM-REV	-43.7415961	4.3468417	1% STP	76095.88	41.09	11-BR-FOS-EM-B3_8
013-BR-OECM-EM-REV	-43.4790616	4.0424838	1% STP	44522.97	24.04	11-BR-FOS-EM-B3_8
014-BR-OECM-EM-REV	-42.9188819	3.4465502	1% STP	90634.64	48.94	11-BR-FOS-EM-B3_8
015-BR-OECM-EM-REV	-42.6107411	3.1911625	1% STP	44387.22	23.97	11-BR-FOS-EM-B3_8
016-BR-OECM-EM-REV	-42.3344386	2.8831888	1% STP	45860.04	24.76	11-BR-FOS-EM-B3_8
017-BR-OECM-EM-REV	-42.0353439	2.2895838	1% STP	73585.05	39.73	21-BR-FOS-EM-S4-Rev
018-BR-OECM-EM-REV	-41.3608664	2.325442	1% STP	75126.71	40.57	21-BR-FOS-EM-S4-Rev
019-BR-OECM-EM-REV	-40.5839478	1.7988224	1% STP	104216.50	56.27	25-BR-FOS-EM-B13
020-BR-OECM-EM-REV	-40.1357857	1.928945	60 M	51897.37	28.02	25-BR-FOS-EM-B13
021-BR-OECM-EM-REV	-40.1279293	1.9317097	60 M	926.00	0.50	25-BR-FOS-EM-B13
022-BR-OECM-EM-REV	-40.1200502	1.9344085	60 M	926.00	0.50	25-BR-FOS-EM-B13
023-BR-OECM-EM-REV	-40.112149	1.937041	60 M	926.00	0.50	25-BR-FOS-EM-B13
024-BR-OECM-EM-REV	-40.1042263	1.9396072	60 M	926.00	0.50	25-BR-FOS-EM-B13
025-BR-OECM-EM-REV	-40.0962826	1.9421069	60 M	926.00	0.50	25-BR-FOS-EM-B13
026-BR-OECM-EM-REV	-40.0883184	1.9445398	60 M	926.00	0.50	25-BR-FOS-EM-B13
027-BR-OECM-EM-REV	-40.0803344	1.9469058	60 M	926.00	0.50	25-BR-FOS-EM-B13
028-BR-OECM-EM-REV	-40.072331	1.9492048	60 M	926.00	0.50	25-BR-FOS-EM-B13
029-BR-OECM-EM-REV	-39.2315762	2.4757332	1% STP	110164.59	59.48	25-BR-FOS-EM-B13
030-BR-OECM-EM-REV	-38.9613491	1.5234982	60 M	109501.65	59.13	25-BR-FOS-EM-B13
031-BR-OECM-EM-REV	-38.4867445	1.2563779	1% STP	60515.17	32.68	26-BR-FOS-EM-S6
032-BR-OECM-EM-REV	-38.4880727	0.7111424	60 M	60289.40	32.55	27-BR-FOS-EM-500-0505-Rev

Table 3. Coordinates of fixed points defining the outer edge of the continental margin beyond 200 M and their corresponding FOS points (Document 7- BR-EM-OECM-AUG2024 provided by Brazil on 27 September 2024)

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OECM point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)	Relevant FOS Point
033-BR-OECM-EM-REV	-37.4953853	0.7016111	1% STP	110502.14	59.67	63-BR-FOS-EM-506LP2421
034-BR-OECM-EM-REV	-36.768368	0.1237176	1% STP	103114.99	55.68	38-BR-FOS-EM-part1_B21_H
035-BR-OECM-EM-REV	-36.538112	-0.633032	1% STP	87514.72	47.25	39-BR-FOS-EM-500-0502-Rev
036-BR-OECM-EM-REV	-35.547964	-0.6592181	60 M	110253.84	59.53	47-BR-FOS-EM-part5_B21_l-Rev
037-BR-OECM-EM-REV	-35.1484517	-0.1430903	1% STP	72352.08	39.07	49-BR-FOS-EM-part6_B21_I
038-BR-OECM-EM-REV	-34.3926737	-0.7877329	60 M	110266.80	59.54	49-BR-FOS-EM-part6_B21_I

OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
002-BR-OL-EM-REV	-47.8071036	8.7008122	1% STP		
003-BR-OL-EM-REV	-47.1571566	8.4720349	350 M	75888.52	40.98
004-BR-OL-EM-REV	-47.1478742	8.4631598	350 M	1417.10	0.77
005-BR-OL-EM-REV	-47.1357771	8.4515265	350 M	1852.00	1.00
006-BR-OL-EM-REV	-47.1237140	8.4398585	350 M	1852.00	1.00
007-BR-OL-EM-REV	-47.1116851	8.4281559	350 M	1852.00	1.00
008-BR-OL-EM-REV	-47.0996904	8.4164190	350 M	1852.00	1.00
009-BR-OL-EM-REV	-47.0877300	8.4046477	350 M	1852.00	1.00
010-BR-OL-EM-REV	-47.0758041	8.3928422	350 M	1852.00	1.00
011-BR-OL-EM-REV	-47.0639127	8.3810025	350 M	1852.00	1.00
012-BR-OL-EM-REV	-47.0520559	8.3691288	350 M	1852.00	1.00
013-BR-OL-EM-REV	-47.0402338	8.3572212	350 M	1852.00	1.00
014-BR-OL-EM-REV	-47.0284465	8.3452798	350 M	1852.00	1.00
015-BR-OL-EM-REV	-47.0166942	8.3333046	350 M	1852.00	1.00
016-BR-OL-EM-REV	-47.0049768	8.3212958	350 M	1852.00	1.00
017-BR-OL-EM-REV	-46.9932945	8.3092534	350 M	1852.00	1.00
018-BR-OL-EM-REV	-46.9816474	8.2971777	350 M	1852.00	1.00
019-BR-OL-EM-REV	-46.9700356	8.2850686	350 M	1852.00	1.00
020-BR-OL-EM-REV	-46.9584591	8.2729262	350 M	1852.00	1.00
021-BR-OL-EM-REV	-46.9469181	8.2607508	350 M	1852.00	1.00
022-BR-OL-EM-REV	-46.9354127	8.2485423	350 M	1852.00	1.00
023-BR-OL-EM-REV	-46.9239429	8.2363009	350 M	1852.00	1.00
024-BR-OL-EM-REV	-46.9125089	8.2240267	350 M	1852.00	1.00
025-BR-OL-EM-REV	-46.9011106	8.2117198	350 M	1852.00	1.00
026-BR-OL-EM-REV	-46.8897484	8.1993803	350 M	1852.00	1.00
027-BR-OL-EM-REV	-46.8784221	8.1870082	350 M	1852.00	1.00
028-BR-OL-EM-REV	-46.8726670	8.1806940	350 M	943.31	0.51
029-BR-OL-EM-REV	-46.8627550	8.1698881	350 M	1619.04	0.87
030-BR-OL-EM-REV	-46.8514507	8.1574968	350 M	1852.00	1.00
031-BR-OL-EM-REV	-46.8401825	8.1450733	350 M	1852.00	1.00
032-BR-OL-EM-REV	-46.8289506	8.1326174	350 M	1852.00	1.00
033-BR-OL-EM-REV	-46.8177550	8.1201295	350 M	1852.00	1.00
034-BR-OL-EM-REV	-46.8065958	8.1076095	350 M	1852.00	1.00

Table 4. Coordinates of fixed points defining the outer limits of the continental shelf beyond 200 M (Document 8- BR-
EM-OLCS-AUG2024* provided by Brazil on 27 September 2024)

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OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
035-BR-OL-EM-REV	-46.7954732	8.0950576	350 M	1852.00	1.00
036-BR-OL-EM-REV	-46.7843871	8.0824739	350 M	1852.00	1.00
037-BR-OL-EM-REV	-46.7733377	8.0698584	350 M	1852.00	1.00
038-BR-OL-EM-REV	-46.7623251	8.0572114	350 M	1852.00	1.00
039-BR-OL-EM-REV	-46.7513493	8.0445328	350 M	1852.00	1.00
040-BR-OL-EM-REV	-46.7404105	8.0318229	350 M	1852.00	1.00
041-BR-OL-EM-REV	-46.7308780	8.0206861	350 M	1619.04	0.87
042-BR-OL-EM-REV	-46.7232907	8.0118317	350 M	1287.84	0.70
043-BR-OL-EM-REV	-46.7124111	7.9990721	350 M	1852.00	1.00
044-BR-OL-EM-REV	-46.7015687	7.9862813	350 M	1852.00	1.00
045-BR-OL-EM-REV	-46.6907635	7.9734596	350 M	1852.00	1.00
046-BR-OL-EM-REV	-46.6799957	7.9606069	350 M	1852.00	1.00
047-BR-OL-EM-REV	-46.6692653	7.9477235	350 M	1852.00	1.00
048-BR-OL-EM-REV	-46.6585724	7.9348093	350 M	1852.00	1.00
049-BR-OL-EM-REV	-46.6479171	7.9218646	350 M	1852.00	1.00
050-BR-OL-EM-REV	-46.6372994	7.9088894	350 M	1852.00	1.00
051-BR-OL-EM-REV	-46.6267195	7.8958838	350 M	1852.00	1.00
052-BR-OL-EM-REV	-46.6161775	7.8828480	350 M	1852.00	1.00
053-BR-OL-EM-REV	-46.6056734	7.8697820	350 M	1852.00	1.00
054-BR-OL-EM-REV	-46.5952073	7.8566860	350 M	1852.00	1.00
055-BR-OL-EM-REV	-46.5847793	7.8435600	350 M	1852.00	1.00
056-BR-OL-EM-REV	-46.5743895	7.8304043	350 M	1852.00	1.00
057-BR-OL-EM-REV	-46.5640379	7.8172188	350 M	1852.00	1.00
058-BR-OL-EM-REV	-46.5537247	7.8040037	350 M	1852.00	1.00
059-BR-OL-EM-REV	-46.5434498	7.7907592	350 M	1852.00	1.00
060-BR-OL-EM-REV	-46.5332135	7.7774852	350 M	1852.00	1.00
061-BR-OL-EM-REV	-46.5230158	7.7641820	350 M	1852.00	1.00
062-BR-OL-EM-REV	-46.5128567	7.7508497	350 M	1852.00	1.00
063-BR-OL-EM-REV	-46.5086350	7.7452760	350 M	772.55	0.42
064-BR-OL-EM-REV	-46.4056291	7.4728374	1% STP	32202.63	17.39
065-BR-OL-EM-REV	-46.2414417	7.3643107	350 M	21738.91	11.74
066-BR-OL-EM-REV	-46.2411384	7.3638410	350 M	61.80	0.03
067-BR-OL-EM-REV	-46.2320910	7.3497396	350 M	1852.00	1.00
068-BR-OL-EM-REV	-46.2273146	7.3422586	350 M	981.14	0.53
069-BR-OL-EM-REV	-46.2205005	7.3316372	350 M	1394.94	0.75
070-BR-OL-EM-REV	-46.2114897	7.3175129	350 M	1852.00	1.00
071-BR-OL-EM-REV	-46.2025197	7.3033628	350 M	1852.00	1.00

OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
072-BR-OL-EM-REV	-46.1935906	7.2891871	350 M	1852.00	1.00
073-BR-OL-EM-REV	-46.1847026	7.2749859	350 M	1852.00	1.00
074-BR-OL-EM-REV	-46.1758557	7.2607594	350 M	1852.00	1.00
075-BR-OL-EM-REV	-46.1670499	7.2465075	350 M	1852.00	1.00
076-BR-OL-EM-REV	-46.1582853	7.2322305	350 M	1852.00	1.00
077-BR-OL-EM-REV	-46.1495620	7.2179284	350 M	1852.00	1.00
078-BR-OL-EM-REV	-46.1408801	7.2036015	350 M	1852.00	1.00
079-BR-OL-EM-REV	-46.1322397	7.1892497	350 M	1852.00	1.00
080-BR-OL-EM-REV	-46.1236407	7.1748732	350 M	1852.00	1.00
081-BR-OL-EM-REV	-46.1150832	7.1604722	350 M	1852.00	1.00
082-BR-OL-EM-REV	-46.1065674	7.1460467	350 M	1852.00	1.00
083-BR-OL-EM-REV	-46.0980933	7.1315969	350 M	1852.00	1.00
084-BR-OL-EM-REV	-46.0896609	7.1171230	350 M	1852.00	1.00
085-BR-OL-EM-REV	-46.0812704	7.1026249	350 M	1852.00	1.00
086-BR-OL-EM-REV	-46.0729217	7.0881028	350 M	1852.00	1.00
087-BR-OL-EM-REV	-46.0646150	7.0735570	350 M	1852.00	1.00
088-BR-OL-EM-REV	-46.0563503	7.0589873	350 M	1852.00	1.00
089-BR-OL-EM-REV	-46.0481277	7.0443941	350 M	1852.00	1.00
090-BR-OL-EM-REV	-46.0399472	7.0297774	350 M	1852.00	1.00
091-BR-OL-EM-REV	-46.0318089	7.0151374	350 M	1852.00	1.00
092-BR-OL-EM-REV	-46.0237129	7.0004741	350 M	1852.00	1.00
093-BR-OL-EM-REV	-46.0156591	6.9857877	350 M	1852.00	1.00
094-BR-OL-EM-REV	-46.0076478	6.9710783	350 M	1852.00	1.00
095-BR-OL-EM-REV	-45.9996789	6.9563460	350 M	1852.00	1.00
096-BR-OL-EM-REV	-45.9917526	6.9415909	350 M	1852.00	1.00
097-BR-OL-EM-REV	-45.9838688	6.9268133	350 M	1852.00	1.00
098-BR-OL-EM-REV	-45.9760276	6.9120131	350 M	1852.00	1.00
099-BR-OL-EM-REV	-45.9682291	6.8971905	350 M	1852.00	1.00
100-BR-OL-EM-REV	-45.9604734	6.8823457	350 M	1852.00	1.00
101-BR-OL-EM-REV	-45.9527604	6.8674787	350 M	1852.00	1.00
102-BR-OL-EM-REV	-45.9450903	6.8525897	350 M	1852.00	1.00
103-BR-OL-EM-REV	-45.9374632	6.8376788	350 M	1852.00	1.00
104-BR-OL-EM-REV	-45.9298790	6.8227461	350 M	1852.00	1.00
105-BR-OL-EM-REV	-45.9223379	6.8077918	350 M	1852.00	1.00
106-BR-OL-EM-REV	-45.9148398	6.7928160	350 M	1852.00	1.00
107-BR-OL-EM-REV	-45.9073849	6.7778187	350 M	1852.00	1.00
108-BR-OL-EM-REV	-45.9017985	6.7665086	350 M	1394.94	0.75

OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
109-BR-OL-EM-REV	-45.8950728	6.7529694	350 M	1671.74	0.90
110-BR-OL-EM-REV	-45.8876630	6.7379501	350 M	1852.00	1.00
111-BR-OL-EM-REV	-45.8802966	6.7229096	350 M	1852.00	1.00
112-BR-OL-EM-REV	-45.8729734	6.7078481	350 M	1852.00	1.00
113-BR-OL-EM-REV	-45.8656937	6.6927657	350 M	1852.00	1.00
114-BR-OL-EM-REV	-45.8584573	6.6776626	350 M	1852.00	1.00
115-BR-OL-EM-REV	-45.8512645	6.6625387	350 M	1852.00	1.00
116-BR-OL-EM-REV	-45.8441151	6.6473944	350 M	1852.00	1.00
117-BR-OL-EM-REV	-45.8370094	6.6322296	350 M	1852.00	1.00
118-BR-OL-EM-REV	-45.8299473	6.6170446	350 M	1852.00	1.00
119-BR-OL-EM-REV	-45.8229289	6.6018394	350 M	1852.00	1.00
120-BR-OL-EM-REV	-45.8159543	6.5866142	350 M	1852.00	1.00
121-BR-OL-EM-REV	-45.8090234	6.5713690	350 M	1852.00	1.00
122-BR-OL-EM-REV	-45.8021364	6.5561041	350 M	1852.00	1.00
123-BR-OL-EM-REV	-45.7952933	6.5408196	350 M	1852.00	1.00
124-BR-OL-EM-REV	-45.7884942	6.5255155	350 M	1852.00	1.00
125-BR-OL-EM-REV	-45.7817391	6.5101921	350 M	1852.00	1.00
126-BR-OL-EM-REV	-45.7750280	6.4948493	350 M	1852.00	1.00
127-BR-OL-EM-REV	-45.7683611	6.4794874	350 M	1852.00	1.00
128-BR-OL-EM-REV	-45.7617383	6.4641065	350 M	1852.00	1.00
129-BR-OL-EM-REV	-45.7551597	6.4487067	350 M	1852.00	1.00
130-BR-OL-EM-REV	-45.7486254	6.4332881	350 M	1852.00	1.00
131-BR-OL-EM-REV	-45.7421354	6.4178509	350 M	1852.00	1.00
132-BR-OL-EM-REV	-45.7356897	6.4023952	350 M	1852.00	1.00
133-BR-OL-EM-REV	-45.7292884	6.3869211	350 M	1852.00	1.00
134-BR-OL-EM-REV	-45.7229316	6.3714287	350 M	1852.00	1.00
135-BR-OL-EM-REV	-45.7166193	6.3559182	350 M	1852.00	1.00
136-BR-OL-EM-REV	-45.7103515	6.3403897	350 M	1852.00	1.00
137-BR-OL-EM-REV	-45.7047321	6.3263572	350 M	1671.74	0.90
138-BR-OL-EM-REV	-45.7004040	6.3160805	350 M	1233.26	0.67
139-BR-OL-EM-REV	-45.6939413	6.3006323	350 M	1852.00	1.00
140-BR-OL-EM-REV	-45.6875231	6.2851657	350 M	1852.00	1.00
141-BR-OL-EM-REV	-45.6811492	6.2696808	350 M	1852.00	1.00
142-BR-OL-EM-REV	-45.6748198	6.2541777	350 M	1852.00	1.00
143-BR-OL-EM-REV	-45.6685350	6.2386566	350 M	1852.00	1.00
144-BR-OL-EM-REV	-45.6622946	6.2231175	350 M	1852.00	1.00
145-BR-OL-EM-REV	-45.6560989	6.2075606	350 M	1852.00	1.00

OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
146-BR-OL-EM-REV	-45.6499478	6.1919861	350 M	1852.00	1.00
147-BR-OL-EM-REV	-45.6438415	6.1763940	350 M	1852.00	1.00
148-BR-OL-EM-REV	-45.6377798	6.1607845	350 M	1852.00	1.00
149-BR-OL-EM-REV	-45.6317630	6.1451577	350 M	1852.00	1.00
150-BR-OL-EM-REV	-45.6257909	6.1295137	350 M	1852.00	1.00
151-BR-OL-EM-REV	-45.6198638	6.1138528	350 M	1852.00	1.00
152-BR-OL-EM-REV	-45.6139815	6.0981749	350 M	1852.00	1.00
153-BR-OL-EM-REV	-45.6081443	6.0824802	350 M	1852.00	1.00
154-BR-OL-EM-REV	-45.6023520	6.0667689	350 M	1852.00	1.00
155-BR-OL-EM-REV	-45.5966048	6.0510411	350 M	1852.00	1.00
156-BR-OL-EM-REV	-45.5909026	6.0352969	350 M	1852.00	1.00
157-BR-OL-EM-REV	-45.5871306	6.0248037	350 M	1233.26	0.67
158-BR-OL-EM-REV	-45.5819656	6.0107988	350 M	1650.94	0.89
159-BR-OL-EM-REV	-45.5762143	5.9950727	350 M	1852.00	1.00
160-BR-OL-EM-REV	-45.5705080	5.9793301	350 M	1852.00	1.00
161-BR-OL-EM-REV	-45.5648468	5.9635713	350 M	1852.00	1.00
162-BR-OL-EM-REV	-45.5592308	5.9477964	350 M	1852.00	1.00
163-BR-OL-EM-REV	-45.5536601	5.9320055	350 M	1852.00	1.00
164-BR-OL-EM-REV	-45.5481345	5.9161986	350 M	1852.00	1.00
165-BR-OL-EM-REV	-45.5426542	5.9003761	350 M	1852.00	1.00
166-BR-OL-EM-REV	-45.5372193	5.8845379	350 M	1852.00	1.00
167-BR-OL-EM-REV	-45.5318297	5.8686842	350 M	1852.00	1.00
168-BR-OL-EM-REV	-45.5264855	5.8528151	350 M	1852.00	1.00
169-BR-OL-EM-REV	-45.5211868	5.8369308	350 M	1852.00	1.00
170-BR-OL-EM-REV	-45.5159335	5.8210314	350 M	1852.00	1.00
171-BR-OL-EM-REV	-45.5107258	5.8051171	350 M	1852.00	1.00
172-BR-OL-EM-REV	-45.5055636	5.7891879	350 M	1852.00	1.00
173-BR-OL-EM-REV	-45.5004470	5.7732440	350 M	1852.00	1.00
174-BR-OL-EM-REV	-45.4953760	5.7572855	350 M	1852.00	1.00
175-BR-OL-EM-REV	-45.4903507	5.7413125	350 M	1852.00	1.00
176-BR-OL-EM-REV	-45.4853711	5.7253253	350 M	1852.00	1.00
177-BR-OL-EM-REV	-45.4804373	5.7093238	350 M	1852.00	1.00
178-BR-OL-EM-REV	-45.4755492	5.6933083	350 M	1852.00	1.00
179-BR-OL-EM-REV	-45.4707069	5.6772789	350 M	1852.00	1.00
180-BR-OL-EM-REV	-45.4659105	5.6612356	350 M	1852.00	1.00
181-BR-OL-EM-REV	-45.4611599	5.6451787	350 M	1852.00	1.00
182-BR-OL-EM-REV	-45.4564553	5.6291083	350 M	1852.00	1.00

OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
183-BR-OL-EM-REV	-45.4517967	5.6130245	350 M	1852.00	1.00
184-BR-OL-EM-REV	-45.4471840	5.5969274	350 M	1852.00	1.00
185-BR-OL-EM-REV	-45.4426173	5.5808172	350 M	1852.00	1.00
186-BR-OL-EM-REV	-45.4380967	5.5646939	350 M	1852.00	1.00
187-BR-OL-EM-REV	-45.4336221	5.5485578	350 M	1852.00	1.00
188-BR-OL-EM-REV	-45.4291937	5.5324090	350 M	1852.00	1.00
189-BR-OL-EM-REV	-45.4248114	5.5162475	350 M	1852.00	1.00
190-BR-OL-EM-REV	-45.4204753	5.5000736	350 M	1852.00	1.00
191-BR-OL-EM-REV	-45.4161854	5.4838873	350 M	1852.00	1.00
192-BR-OL-EM-REV	-45.4119417	5.4676888	350 M	1852.00	1.00
193-BR-OL-EM-REV	-45.4081978	5.4532387	350 M	1650.94	0.89
194-BR-OL-EM-REV	-45.4041855	5.4491725	350 M	632.36	0.34
195-BR-OL-EM-REV	-45.4001773	5.4451025	350 M	632.36	0.34
196-BR-OL-EM-REV	-45.3966532	5.4415320	350 M	555.36	0.30
197-BR-OL-EM-REV	-45.3931322	5.4379584	350 M	555.36	0.30
198-BR-OL-EM-REV	-45.3872994	5.4320419	350 M	919.73	0.50
199-BR-OL-EM-REV	-45.3814666	5.4261254	350 M	919.74	0.50
200-BR-OL-EM-REV	-45.3756337	5.4202089	350 M	919.75	0.50
201-BR-OL-EM-REV	-45.3698008	5.4142924	350 M	919.76	0.50
202-BR-OL-EM-REV	-45.3660301	5.4104695	350 M	594.44	0.32
203-BR-OL-EM-REV	-45.3622628	5.4066432	350 M	594.44	0.32
204-BR-OL-EM-REV	-45.3580289	5.4023539	350 M	667.21	0.36
205-BR-OL-EM-REV	-45.3537994	5.3980602	350 M	667.21	0.36
206-BR-OL-EM-REV	-45.3479647	5.3921446	350 M	919.84	0.50
207-BR-OL-EM-REV	-45.3430546	5.3871632	350 M	774.34	0.42
208-BR-OL-EM-REV	-45.3372212	5.3812463	350 M	919.85	0.50
209-BR-OL-EM-REV	-45.3338326	5.3778113	350 M	534.17	0.29
210-BR-OL-EM-REV	-45.3304468	5.3743735	350 M	534.17	0.29
211-BR-OL-EM-REV	-45.3269239	5.3708038	350 M	555.23	0.30
212-BR-OL-EM-REV	-45.3234040	5.3672312	350 M	555.23	0.30
213-BR-OL-EM-REV	-45.3185113	5.3622704	350 M	771.37	0.42
214-BR-OL-EM-REV	-45.3126799	5.3563521	350 M	919.82	0.50
215-BR-OL-EM-REV	-45.3091373	5.3527631	350 M	558.30	0.30
216-BR-OL-EM-REV	-45.3055978	5.3491710	350 M	558.30	0.30
217-BR-OL-EM-REV	-45.2997645	5.3432545	350 M	919.83	0.50
218-BR-OL-EM-REV	-45.2939705	5.3373778	350 M	913.64	0.49
219-BR-OL-EM-REV	-45.2881372	5.3314613	350 M	919.85	0.50

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OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
220-BR-OL-EM-REV	-45.2851762	5.3284603	350 M	466.75	0.25
221-BR-OL-EM-REV	-45.2822174	5.3254570	350 M	466.75	0.25
222-BR-OL-EM-REV	-45.2763839	5.3195406	350 M	919.86	0.50
223-BR-OL-EM-REV	-45.2705272	5.3136002	350 M	923.57	0.50
224-BR-OL-EM-REV	-45.2646936	5.3076839	350 M	919.87	0.50
225-BR-OL-EM-REV	-45.2591794	5.3020913	350 M	869.52	0.47
226-BR-OL-EM-REV	-45.2533462	5.2961745	350 M	919.89	0.50
227-BR-OL-EM-REV	-45.2502452	5.2930318	350 M	488.81	0.26
228-BR-OL-EM-REV	-45.2471466	5.2898868	350 M	488.81	0.26
229-BR-OL-EM-REV	-45.2413128	5.2839705	350 M	919.90	0.50
230-BR-OL-EM-REV	-45.2358264	5.2784061	350 M	865.17	0.47
231-BR-OL-EM-REV	-45.2320533	5.2745810	350 M	594.86	0.32
232-BR-OL-EM-REV	-45.2282837	5.2707524	350 M	594.86	0.32
233-BR-OL-EM-REV	-45.2244133	5.2668326	350 M	609.89	0.33
234-BR-OL-EM-REV	-45.2205467	5.2629091	350 M	609.89	0.33
235-BR-OL-EM-REV	-45.2147126	5.2569923	350 M	919.98	0.50
236-BR-OL-EM-REV	-45.2088786	5.2510755	350 M	919.99	0.50
237-BR-OL-EM-REV	-45.2030445	5.2451586	350 M	920.00	0.50
238-BR-OL-EM-REV	-45.1972103	5.2392418	350 M	920.00	0.50
239-BR-OL-EM-REV	-45.1937664	5.2357510	350 M	542.93	0.29
240-BR-OL-EM-REV	-45.1903254	5.2322574	350 M	542.93	0.29
241-BR-OL-EM-REV	-45.1859478	5.2278217	350 M	690.01	0.37
242-BR-OL-EM-REV	-45.1815749	5.2233813	350 M	690.01	0.37
243-BR-OL-EM-REV	-45.1777224	5.2194797	350 M	607.09	0.33
244-BR-OL-EM-REV	-45.1738735	5.2155744	350 M	607.09	0.33
245-BR-OL-EM-REV	-45.1680393	5.2096576	350 M	920.03	0.50
246-BR-OL-EM-REV	-45.1645190	5.2060896	350 M	554.96	0.30
247-BR-OL-EM-REV	-45.1610019	5.2025186	350 M	554.96	0.30
248-BR-OL-EM-REV	-45.1566240	5.1980830	350 M	690.04	0.37
249-BR-OL-EM-REV	-45.1522509	5.1936428	350 M	690.04	0.37
250-BR-OL-EM-REV	-45.1479310	5.1892672	350 M	680.81	0.37
251-BR-OL-EM-REV	-45.1436158	5.1848870	350 M	680.81	0.37
252-BR-OL-EM-REV	-45.1400948	5.1813203	350 M	554.93	0.30
253-BR-OL-EM-REV	-45.1365770	5.1777505	350 M	554.93	0.30
254-BR-OL-EM-REV	-45.1334078	5.1745389	350 M	499.58	0.27
255-BR-OL-EM-REV	-45.1302411	5.1713248	350 M	499.58	0.27
256-BR-OL-EM-REV	-45.1264657	5.1674988	350 M	595.17	0.32

OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
257-BR-OL-EM-REV	-45.1226938	5.1636692	350 M	595.17	0.32
258-BR-OL-EM-REV	-45.1168353	5.1577320	350 M	923.57	0.50
259-BR-OL-EM-REV	-45.1110026	5.1518133	350 M	920.10	0.50
260-BR-OL-EM-REV	-45.1074298	5.1481945	350 M	563.08	0.30
261-BR-OL-EM-REV	-45.1038602	5.1445726	350 M	563.08	0.30
262-BR-OL-EM-REV	-45.1001146	5.1407762	350 M	590.52	0.32
263-BR-OL-EM-REV	-45.0963725	5.1369764	350 M	590.52	0.32
264-BR-OL-EM-REV	-45.0928515	5.1334108	350 M	554.86	0.30
265-BR-OL-EM-REV	-45.0893336	5.1298421	350 M	554.86	0.30
266-BR-OL-EM-REV	-45.0839517	5.1243838	350 M	848.78	0.46
267-BR-OL-EM-REV	-45.0801758	5.1205568	350 M	595.30	0.32
268-BR-OL-EM-REV	-45.0764035	5.1167263	350 M	595.30	0.32
269-BR-OL-EM-REV	-45.0726259	5.1129008	350 M	595.31	0.32
270-BR-OL-EM-REV	-45.0688519	5.1090718	350 M	595.31	0.32
271-BR-OL-EM-REV	-45.0630171	5.1031550	350 M	920.15	0.50
272-BR-OL-EM-REV	-45.0571822	5.0972382	350 M	920.16	0.50
273-BR-OL-EM-REV	-45.0513473	5.0913214	350 M	920.16	0.50
274-BR-OL-EM-REV	-45.0455124	5.0854046	350 M	920.17	0.50
275-BR-OL-EM-REV	-45.0419933	5.0818382	350 M	554.79	0.30
276-BR-OL-EM-REV	-45.0384774	5.0782688	350 M	554.79	0.30
277-BR-OL-EM-REV	-45.0340990	5.0738333	350 M	690.14	0.37
278-BR-OL-EM-REV	-45.0297255	5.0693931	350 M	690.14	0.37
279-BR-OL-EM-REV	-45.0259471	5.0655670	350 M	595.44	0.32
280-BR-OL-EM-REV	-45.0221723	5.0617374	350 M	595.44	0.32
281-BR-OL-EM-REV	-45.0163373	5.0558206	350 M	920.20	0.50
282-BR-OL-EM-REV	-45.0128185	5.0522546	350 M	554.76	0.30
283-BR-OL-EM-REV	-45.0093028	5.0486856	350 M	554.76	0.30
284-BR-OL-EM-REV	-45.0057831	5.0451207	350 M	554.75	0.30
285-BR-OL-EM-REV	-45.0022664	5.0415528	350 M	554.75	0.30
286-BR-OL-EM-REV	-44.9964315	5.0356363	350 M	920.18	0.50
287-BR-OL-EM-REV	-44.9905997	5.0297230	350 M	919.69	0.50
288-BR-OL-EM-REV	-44.9847647	5.0238065	350 M	920.19	0.50
289-BR-OL-EM-REV	-44.9789265	5.0178868	350 M	920.70	0.50
290-BR-OL-EM-REV	-44.9730915	5.0119703	350 M	920.20	0.50
291-BR-OL-EM-REV	-44.9672564	5.0060538	350 M	920.21	0.50
292-BR-OL-EM-REV	-44.9614213	5.0001373	350 M	920.22	0.50
293-BR-OL-EM-REV	-44.9555861	4.9942208	350 M	920.23	0.50

OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
294-BR-OL-EM-REV	-44.9497509	4.9883044	350 M	920.23	0.50
295-BR-OL-EM-REV	-44.9464656	4.9849753	350 M	517.95	0.28
296-BR-OL-EM-REV	-44.9431829	4.9816436	350 M	517.95	0.28
297-BR-OL-EM-REV	-44.9373465	4.9757282	350 M	920.25	0.50
298-BR-OL-EM-REV	-44.9314913	4.9697893	350 M	923.57	0.50
299-BR-OL-EM-REV	-44.9277124	4.9659611	350 M	595.70	0.32
300-BR-OL-EM-REV	-44.9239370	4.9621294	350 M	595.70	0.32
301-BR-OL-EM-REV	-44.9205350	4.9586839	350 M	536.22	0.29
302-BR-OL-EM-REV	-44.9171359	4.9552355	350 M	536.22	0.29
303-BR-OL-EM-REV	-44.9113002	4.9493187	350 M	920.32	0.50
304-BR-OL-EM-REV	-44.9077823	4.9457540	350 M	554.64	0.30
305-BR-OL-EM-REV	-44.9042675	4.9421862	350 M	554.64	0.30
306-BR-OL-EM-REV	-44.8984300	4.9362712	350 M	920.33	0.50
307-BR-OL-EM-REV	-44.8937930	4.9315685	350 M	731.39	0.39
308-BR-OL-EM-REV	-44.8902753	4.9280039	350 M	554.62	0.30
309-BR-OL-EM-REV	-44.8867606	4.9244363	350 M	554.61	0.30
310-BR-OL-EM-REV	-44.8832418	4.9208729	350 M	554.61	0.30
311-BR-OL-EM-REV	-44.8797261	4.9173064	350 M	554.61	0.30
312-BR-OL-EM-REV	-44.8738904	4.9113899	350 M	920.32	0.50
313-BR-OL-EM-REV	-44.8701113	4.9075604	350 M	595.84	0.32
314-BR-OL-EM-REV	-44.8663358	4.9037274	350 M	595.84	0.32
315-BR-OL-EM-REV	-44.8619563	4.8992927	350 M	690.25	0.37
316-BR-OL-EM-REV	-44.8575816	4.8948532	350 M	690.25	0.37
317-BR-OL-EM-REV	-44.8540157	4.8912421	350 M	562.05	0.30
318-BR-OL-EM-REV	-44.8504530	4.8876279	350 M	562.05	0.30
319-BR-OL-EM-REV	-44.8446170	4.8817115	350 M	920.35	0.50
320-BR-OL-EM-REV	-44.8412855	4.8783359	350 M	525.25	0.28
321-BR-OL-EM-REV	-44.8379568	4.8749576	350 M	525.25	0.28
322-BR-OL-EM-REV	-44.8335781	4.8705220	350 M	690.28	0.37
323-BR-OL-EM-REV	-44.8292041	4.8660817	350 M	690.28	0.37
324-BR-OL-EM-REV	-44.8252842	4.8621134	350 M	617.74	0.33
325-BR-OL-EM-REV	-44.8213682	4.8581415	350 M	617.74	0.33
326-BR-OL-EM-REV	-44.8155322	4.8522250	350 M	920.38	0.50
327-BR-OL-EM-REV	-44.8096962	4.8463085	350 M	920.39	0.50
328-BR-OL-EM-REV	-44.8038601	4.8403920	350 M	920.40	0.50
329-BR-OL-EM-REV	-44.7980241	4.8344755	350 M	920.41	0.50
330-BR-OL-EM-REV	-44.7942439	4.8306452	350 M	596.01	0.32

OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
331-BR-OL-EM-REV	-44.7904673	4.8268114	350 M	596.01	0.32
332-BR-OL-EM-REV	-44.7866854	4.8229827	350 M	596.03	0.32
333-BR-OL-EM-REV	-44.7829071	4.8191505	350 M	596.03	0.32
334-BR-OL-EM-REV	-44.7793901	4.8155871	350 M	554.51	0.30
335-BR-OL-EM-REV	-44.7758761	4.8120207	350 M	554.51	0.30
336-BR-OL-EM-REV	-44.7718378	4.8079310	350 M	636.55	0.34
337-BR-OL-EM-REV	-44.7678035	4.8038374	350 M	636.55	0.34
338-BR-OL-EM-REV	-44.7640220	4.8000078	350 M	596.08	0.32
339-BR-OL-EM-REV	-44.7602440	4.7961747	350 M	596.08	0.32
340-BR-OL-EM-REV	-44.7569830	4.7928721	350 M	514.05	0.28
341-BR-OL-EM-REV	-44.7537246	4.7895669	350 M	514.05	0.28
342-BR-OL-EM-REV	-44.7507672	4.7865710	350 M	466.25	0.25
343-BR-OL-EM-REV	-44.7462919	4.7853666	350 M	514.01	0.28
344-BR-OL-EM-REV	-44.7418177	4.7841586	350 M	514.01	0.28
345-BR-OL-EM-REV	-44.7343048	4.7821343	350 M	862.98	0.47
346-BR-OL-EM-REV	-44.7300715	4.7809948	350 M	486.23	0.26
347-BR-OL-EM-REV	-44.7258390	4.7798520	350 M	486.24	0.26
348-BR-OL-EM-REV	-44.7212718	4.7786228	350 M	524.58	0.28
349-BR-OL-EM-REV	-44.7167056	4.7773899	350 M	524.58	0.28
350-BR-OL-EM-REV	-44.7122487	4.7761910	350 M	511.90	0.28
351-BR-OL-EM-REV	-44.7077928	4.7749885	350 M	511.90	0.28
352-BR-OL-EM-REV	-44.6997614	4.7728239	350 M	922.56	0.50
353-BR-OL-EM-REV	-44.6952407	4.7716071	350 M	519.25	0.28
354-BR-OL-EM-REV	-44.6798320	4.7674329	350 M	1770.61	0.96
355-BR-OL-EM-REV	-44.6637274	4.7630216	350 M	1852.00	1.00
356-BR-OL-EM-REV	-44.6476356	4.7585639	350 M	1852.00	1.00
357-BR-OL-EM-REV	-44.6315568	4.7540598	350 M	1852.00	1.00
358-BR-OL-EM-REV	-44.6154909	4.7495095	350 M	1852.00	1.00
359-BR-OL-EM-REV	-44.5994383	4.7449129	350 M	1852.00	1.00
360-BR-OL-EM-REV	-44.5833990	4.7402701	350 M	1852.00	1.00
361-BR-OL-EM-REV	-44.5673732	4.7355811	350 M	1852.00	1.00
362-BR-OL-EM-REV	-44.5520644	4.7310551	350 M	1770.61	0.96
363-BR-OL-EM-REV	-44.5471076	4.7295913	350 M	573.25	0.31
364-BR-OL-EM-REV	-44.5421522	4.7281231	350 M	573.25	0.31
365-BR-OL-EM-REV	-44.5341767	4.7257625	350 M	922.52	0.50
366-BR-OL-EM-REV	-44.5287815	4.7241669	350 M	624.02	0.34
367-BR-OL-EM-REV	-44.5233879	4.7225662	350 M	624.02	0.34

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OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
368-BR-OL-EM-REV	-44.5177950	4.7209151	350 M	646.80	0.35
369-BR-OL-EM-REV	-44.5122037	4.7192585	350 M	646.81	0.35
370-BR-OL-EM-REV	-44.5080185	4.7180216	350 M	484.06	0.26
371-BR-OL-EM-REV	-44.5038342	4.7167815	350 M	484.06	0.26
372-BR-OL-EM-REV	-44.4958584	4.7144208	350 M	922.57	0.50
373-BR-OL-EM-REV	-44.4878827	4.7120601	350 M	922.58	0.50
374-BR-OL-EM-REV	-44.4799069	4.7096994	350 M	922.58	0.50
375-BR-OL-EM-REV	-44.4719311	4.7073387	350 M	922.59	0.50
376-BR-OL-EM-REV	-44.4639554	4.7049780	350 M	922.59	0.50
377-BR-OL-EM-REV	-44.4559796	4.7026173	350 M	922.59	0.50
378-BR-OL-EM-REV	-44.4516020	4.7013232	350 M	506.33	0.27
379-BR-OL-EM-REV	-44.4472254	4.7000256	350 M	506.33	0.27
380-BR-OL-EM-REV	-44.4428477	4.6987321	350 M	506.32	0.27
381-BR-OL-EM-REV	-44.4384710	4.6974351	350 M	506.32	0.27
382-BR-OL-EM-REV	-44.4305471	4.6950898	350 M	916.61	0.49
383-BR-OL-EM-REV	-44.4225716	4.6927291	350 M	922.57	0.50
384-BR-OL-EM-REV	-44.4185576	4.6915427	350 M	464.27	0.25
385-BR-OL-EM-REV	-44.4145445	4.6903533	350 M	464.27	0.25
386-BR-OL-EM-REV	-44.4065690	4.6879927	350 M	922.58	0.50
387-BR-OL-EM-REV	-44.3985934	4.6856321	350 M	922.58	0.50
388-BR-OL-EM-REV	-44.3906179	4.6832715	350 M	922.59	0.50
389-BR-OL-EM-REV	-44.3834195	4.6811415	350 M	832.67	0.45
390-BR-OL-EM-REV	-44.3763804	4.6790576	350 M	814.29	0.44
391-BR-OL-EM-REV	-44.3684046	4.6766967	350 M	922.63	0.50
392-BR-OL-EM-REV	-44.3604029	4.6743285	350 M	925.62	0.50
393-BR-OL-EM-REV	-44.3524271	4.6719677	350 M	922.64	0.50
394-BR-OL-EM-REV	-44.3444254	4.6695995	350 M	925.62	0.50
395-BR-OL-EM-REV	-44.3364496	4.6672387	350 M	922.64	0.50
396-BR-OL-EM-REV	-44.3284480	4.6648705	350 M	925.62	0.50
397-BR-OL-EM-REV	-44.3204722	4.6625097	350 M	922.65	0.50
398-BR-OL-EM-REV	-44.3124706	4.6601416	350 M	925.62	0.50
399-BR-OL-EM-REV	-44.3044948	4.6577808	350 M	922.66	0.50
400-BR-OL-EM-REV	-44.3000903	4.6564788	350 M	509.46	0.28
401-BR-OL-EM-REV	-44.2956869	4.6551732	350 M	509.46	0.28
402-BR-OL-EM-REV	-44.2913106	4.6538802	350 M	506.19	0.27
403-BR-OL-EM-REV	-44.2869353	4.6525836	350 M	506.19	0.27
404-BR-OL-EM-REV	-44.2789597	4.6502230	350 M	922.63	0.50

OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
405-BR-OL-EM-REV	-44.2709840	4.6478624	350 M	922.64	0.50
406-BR-OL-EM-REV	-44.2630084	4.6455018	350 M	922.64	0.50
407-BR-OL-EM-REV	-44.2550328	4.6431412	350 M	922.64	0.50
408-BR-OL-EM-REV	-44.2470571	4.6407806	350 M	922.65	0.50
409-BR-OL-EM-REV	-44.2390641	4.6384149	350 M	924.66	0.50
410-BR-OL-EM-REV	-44.2317921	4.6362631	350 M	841.23	0.45
411-BR-OL-EM-REV	-44.2246082	4.6341364	350 M	831.08	0.45
412-BR-OL-EM-REV	-44.2167027	4.6317965	350 M	914.55	0.49
413-BR-OL-EM-REV	-44.2087267	4.6294358	350 M	922.70	0.50
414-BR-OL-EM-REV	-44.2007507	4.6270751	350 M	922.71	0.50
415-BR-OL-EM-REV	-44.1927747	4.6247144	350 M	922.71	0.50
416-BR-OL-EM-REV	-44.1847986	4.6223537	350 M	922.71	0.50
417-BR-OL-EM-REV	-44.1768226	4.6199930	350 M	922.72	0.50
418-BR-OL-EM-REV	-44.1727487	4.6187888	350 M	471.25	0.25
419-BR-OL-EM-REV	-44.1686757	4.6175816	350 M	471.25	0.25
420-BR-OL-EM-REV	-44.1642784	4.6162818	350 M	508.66	0.27
421-BR-OL-EM-REV	-44.1598821	4.6149786	350 M	508.66	0.27
422-BR-OL-EM-REV	-44.1518808	4.6126114	350 M	925.62	0.50
423-BR-OL-EM-REV	-44.1447225	4.6104924	350 M	828.14	0.45
424-BR-OL-EM-REV	-44.1369423	4.6081896	350 M	900.08	0.49
425-BR-OL-EM-REV	-44.1325677	4.6068964	350 M	506.04	0.27
426-BR-OL-EM-REV	-44.1281942	4.6055997	350 M	506.04	0.27
427-BR-OL-EM-REV	-44.1238195	4.6043072	350 M	506.03	0.27
428-BR-OL-EM-REV	-44.1194459	4.6030111	350 M	506.03	0.27
429-BR-OL-EM-REV	-44.1154272	4.6018233	350 M	464.87	0.25
430-BR-OL-EM-REV	-44.1114093	4.6006325	350 M	464.87	0.25
431-BR-OL-EM-REV	-44.1034335	4.5982720	350 M	922.71	0.50
432-BR-OL-EM-REV	-44.0954525	4.5959098	350 M	923.33	0.50
433-BR-OL-EM-REV	-44.0879530	4.5936906	350 M	867.61	0.47
434-BR-OL-EM-REV	-44.0808145	4.5915776	350 M	825.86	0.45
435-BR-OL-EM-REV	-44.0731334	4.5893041	350 M	888.64	0.48
436-BR-OL-EM-REV	-44.0651573	4.5869434	350 M	922.77	0.50
437-BR-OL-EM-REV	-44.0571811	4.5845827	350 M	922.77	0.50
438-BR-OL-EM-REV	-44.0492050	4.5822220	350 M	922.78	0.50
439-BR-OL-EM-REV	-44.0412288	4.5798613	350 M	922.78	0.50
440-BR-OL-EM-REV	-44.0332526	4.5775006	350 M	922.78	0.50
441-BR-OL-EM-REV	-44.0252764	4.5751399	350 M	922.79	0.50

OLCS Point	Longitude (DD.DEC)	Latitude (DD.DEC)	Art. 76 Criterion	Distance to previous point (m)	Distance to previous point (M)
442-BR-OL-EM-REV	-44.0173003	4.5727792	350 M	922.79	0.50
443-BR-OL-EM-REV	-44.0129269	4.5714864	350 M	505.92	0.27
444-BR-OL-EM-REV	-44.0112937	4.5710022	350 M	188.98	0.10
445-BR-OL-EM-REV	-43.7415961	4.3468417	1% STP	38863.65	20.98
446-BR-OL-EM-REV	-43.4790616	4.0424838	1% STP	44522.97	24.04
447-BR-OL-EM-REV	-42.9188819	3.4465502	1% STP	90634.64	48.94
448-BR-OL-EM-REV	-42.6107411	3.1911625	1% STP	44387.22	23.97
449-BR-OL-EM-REV	-42.3344386	2.8831888	1% STP	45860.04	24.76
450-BR-OL-EM-REV	-42.0353439	2.2895838	1% STP	73585.05	39.73
451-BR-OL-EM-REV	-41.3608664	2.3254420	1% STP	75126.71	40.57
452-BR-OL-EM-REV	-40.5839478	1.7988224	1% STP	104216.50	56.27
453-BR-OL-EM-REV	-40.0803344	1.9469058	FOS + 60 M	58375.78	31.52
454-BR-OL-EM-REV	-40.0723310	1.9492048	FOS + 60 M	926.00	0.50
455-BR-OL-EM-REV	-39.2315762	2.4757332	1% STP	110164.59	59.48
456-BR-OL-EM-REV	-38.9613491	1.5234982	FOS + 60 M	109501.65	59.13
457-BR-OL-EM-REV	-38.4867445	1.2563779	1% STP	60515.17	32.68
458-BR-OL-EM-REV	-38.4880727	0.7111424	FOS + 60 M	60289.40	32.55
459-BR-OL-EM-REV	-37.4953853	0.7016111	1% STP	110502.14	59.67
460-BR-OL-EM-REV	-36.7683680	0.1237176	1% STP	103114.99	55.68
461-BR-OL-EM-REV	-36.5381120	-0.6330320	1% STP	87514.72	47.25
462-BR-OL-EM-REV	-35.5479640	-0.6592181	FOS + 60 M	110253.84	59.53
463-BR-OL-EM-REV	-35.1484517	-0.1430903	1% STP	72352.08	39.07

* Received table amended in accordance with paragraph 78 of these Recommendations.