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Agenda item 10

**Consideration, with a view to approval, of applications
for a plan of work for exploration, if any**

Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for approval of a plan of work for exploration for polymetallic nodules by Blue Minerals Jamaica Ltd.

I. Introduction

1. On 4 June 2020, the Secretary-General of the International Seabed Authority received an application for the approval of a plan of work for exploration for polymetallic nodules in the Area. The application was submitted, pursuant to the regulations on prospecting and exploration for polymetallic nodules in the Area ([ISBA/19/C/17](#), annex, and [ISBA/19/A/12](#)), by Blue Minerals Jamaica Ltd.

2. On 5 June 2020, in accordance with regulation 20, paragraph 1 (c), the Secretary-General notified the members of the Authority of the receipt of the application and circulated information of a general nature concerning the application. On the same date, the Secretary-General also notified the members of the Legal and Technical Commission and placed consideration of the application on the agenda of the Commission for discussion during the second part of its twenty-sixth session, to be held online from 6 to 31 July 2020.

II. Methodology and consideration of the application by the Legal and Technical Commission

A. General methodology applied by the Commission in consideration of the application

3. In its consideration of the application, the Commission noted that, in keeping with the provisions of article 6 of annex III to the United Nations Convention on the Law of the Sea, and paragraph 3 of regulation 21, it was first required to make an objective determination as to whether the applicant had fulfilled the requirements



contained in the regulations, in particular with respect to the form of the application; whether the applicant had given the undertakings and assurances specified in regulation 14; possessed the financial and technical capabilities to carry out the proposed plan of work for exploration and had provided details as to its ability to comply promptly with emergency orders; and, as relevant, had satisfactorily discharged its obligations in relation to any previous contract with the Authority. The Commission was then required to determine, in accordance with regulation 21, paragraph 4, and its procedures, whether the proposed plan of work would provide for effective protection of human health and safety and effective protection and preservation of the marine environment, and ensure that installations would not be established where interference might be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity. In its paragraph 5, regulation 21 also provides that, if the Commission makes the determinations specified in its paragraph 3, and determines that the proposed plan of work for exploration meets the requirements of its paragraph 4, the Commission shall recommend approval of the plan of work for exploration to the Council.

4. In considering the proposed plan of work for exploration for polymetallic nodules, the Commission took into account the principles, policies and objectives relating to activities in the Area, as provided for in part XI of annex III to the Convention and in the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982.

B. Consideration of the application

5. The Commission considered the application on 6, 7, 13, 14, 20, 21 and 23 July 2020.

6. Prior to commencing a detailed examination of the application, the Commission invited the applicant to make a presentation of the application on 7 July 2020. A representative of the sponsoring State also made a statement to the Commission in support of the application. Members of the Commission then asked questions to obtain clarification on certain aspects of the application. The Commission evaluated the legal, financial, geological, technological, environmental and training aspects of the application.

7. On 16 July 2020, the Commission sent a set of written questions to the applicant, which submitted written responses on 21 July. The Commission considered those responses on 21 July and further exchanged views on 23 July. It was satisfied with the written responses received and it evaluated the application in accordance with the procedure contained in document [ISBA/18/LTC/7/Rev.1](#).

III. Summary of basic information regarding the application

A. Identification of the applicant

8. Name of applicant: Blue Minerals Jamaica Ltd.

9. Address of the applicant:

- (a) Street address: 47–49 Trinidad Terrace, Kingston 5, Jamaica;
- (b) Postal address: same as above;
- (c) Telephone number: none;
- (d) Fax number: none.

10. Email address: info@blue-minerals.com.
11. Name of applicant's designated representative:
 - (a) Peter Henrik Jantzen;
 - (b) Street address: same as above;
 - (c) Postal address: same as above;
 - (d) Telephone number: +44 7748 965 680;
 - (e) Fax number: none;
 - (f) Email address: peter.jantzen@blue-minerals.com.
12. As a juridical person, the applicant's details are:
 - (a) Place of registration: Kingston, Jamaica;
 - (b) Principal place of business/domicile: 47–49 Trinidad Terrace, Kingston 5, Jamaica.

B. Sponsorship

13. The sponsoring State is Jamaica.
14. The date of deposit by Jamaica of its instrument of ratification of the Convention is 21 March 1983, and the date of the consent of Jamaica to be bound by the 1994 Agreement is 28 July 1995.

C. Area of application

15. The total application area covered is 74,916 km², comprising parts of reserved areas in the Clarion-Clipperton Fracture Zone contributed by UK Seabed Resources Ltd., the Government of the Republic of Korea and the Interoceanmetal Joint Organization. The area consists of four blocks (A, B, C and D).
16. The largest block, block A, is in the central part of the Clarion-Clipperton Fracture Zone, while the three smaller blocks are located in the eastern part.
17. Block A covers an area of 44,959 km²; block B, 16,858 km²; block C, 9,482 km²; and block D, 3,617 km² (see annexes I and II).
18. The application area is a part of the Area and lies beyond the limits of the national jurisdiction of any State.
19. The Commission notes that the area of the application does not overlap with existing contract areas.
20. The Commission also notes that the applicant will ensure that it will not establish any installations where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity.

D. Other information

21. The applicant provided the written undertakings signed by its designated representative, in compliance with regulation 14.
22. The applicant paid a fee of \$500,000, in accordance with regulation 19, paragraph 1.

IV. Examination of information and technical data submitted by the applicant

23. The following technical documents and information were submitted by the applicant:

- (a) Information relating to the area under application:
 - (i) Charts of the location of the blocks;
 - (ii) A list of the coordinates of the corners of blocks under application, in accordance with the World Geodetic System 1984;
- (b) Information to enable the Council to determine whether the applicant is financially capable of carrying out the proposed plan of work for exploration;
- (c) Information to enable the Council to determine whether the applicant is technically capable of carrying out the proposed plan of work for exploration;
- (d) A description of the technology related to the recovery and processing of polymetallic nodules;
- (e) A plan of work for exploration;
- (f) Information relating to training;
- (g) Written undertakings by the applicant;
- (h) Oral and written responses to the questions raised by the Commission.

V. Consideration of financial and technical qualifications of the applicant

A. Financial capability

24. The Commission noted that the applicant, being a newly established entity, submitted a pro forma balance sheet certified by its designated representative, in accordance with regulation 12, paragraph 6.

B. Technical capability

25. The Commission noted that a shareholder and operational partner of the applicant was a multinational enterprise engaged for more than 35 years in carrying out challenging marine projects in the offshore oil and gas industry and currently engaged in the deep seabed mining sector.

1. General description of equipment and methods

26. The applicant provided information regarding the planned operation to carry out the proposed plan of work for exploration, as well as on the methods and instruments to be used for that purpose, including a detailed list of equipment to be used each year for the first five-year programme of activities. The applicant informed that it would use such equipment as:

- (a) A fully equipped vessel;
- (b) Multibeam echo sounding: the bathymetry and backscattered echo intensity are to be used to conduct regional bathymetric mapping;

(c) Sub-bottom profiler system: the acoustic data are to be used to study the thickness and physical characteristics of subsurface sediment;

(d) Deep-towed camera systems: high-resolution video system transmitting real-time imagery to be used to acquire data, such as coverage of polymetallic nodules and megafauna;

(e) Remotely operated vehicle: can be used to visualize the sea floor and to sample biota and nodules, but the payload is determined by the size of the robotic device;

(f) Autonomous underwater vehicle: can carry side-scan and multibeam sonar units, cameras and oceanographic sensors. The ability of such vehicles to cover large areas helps in correlating regional trends with localized oceanographic, geological and biological details;

(g) Box corers: to be used to collect samples of polymetallic nodules and surface sediments to study the type, abundance, coverage and main metal contents of polymetallic nodules, to analyse the type, geomechanical properties and chemical composition of sediments and to study macrofauna;

(h) Multicorers: for meiofauna and microfauna sampling and for detailed sediment geochemistry work;

(i) On-board laboratory facilities: for biological and geological processing, with specialized equipment and modern facilities optimized for dealing with polymetallic nodules and deep sea biology, and box-core samplers for efficient handling, documentation and preservation of the samples acquired;

(j) Moorings: the inter-annual environmental parameters, such as seawater temperature, salinity, bottom current velocity and direction, are to be obtained to establish environmental baselines and conduct environmental impact assessments and monitoring;

(k) Conductivity, temperature and depth rosettes: to be used to collect seawater samples at various depths and measure the parameters of temperature and salinity in order to establish environmental baselines and conduct environmental impact assessments and monitoring;

(l) Dredges: to be used to recover polymetallic nodule samples for metallurgical testing.

27. The applicant noted that some of the equipment is yet to be purchased or modified.

2. Financial and technical capabilities to respond to any incident or activity that causes serious harm to the marine environment

28. The applicant provided information related to its financial and technical capabilities to respond to any incident or activity that causes serious harm to the marine environment. In particular, it provided information on the following measures that it would take to prevent, reduce and control hazards to and possible impacts on the marine environment: (a) prevention measures for pollution from ships, including emergency response mechanism, shipboard control measures, ship oil spill management, marine pollution management and manuals for ship pollution prevention and control; and (b) measures for the prevention, reduction and control of other hazards at sea.

VI. Consideration of data and information submitted for approval of the plan of work for exploration

29. In accordance with regulation 18, the applicant submitted the following information, with a view to receiving approval of the plan of work for exploration:

(a) A general description and schedule of the proposed exploration programme, including the programme of activities for the immediate five-year period, such as studies to be undertaken in respect of the environmental, technical, economic and other appropriate factors that must be taken into account in exploration;

(b) A description of the programme for oceanographic and environmental baseline studies in accordance with the regulations and any environmental rules, regulations and procedures established by the Authority that would enable an assessment of the potential environmental impact, including, but not restricted to, the impact on biodiversity of the proposed exploration activities, taking into account the recommendations issued by the Commission ([ISBA/25/LTC/6/Rev.1](#) and [ISBA/25/LTC/6/Rev.1/Corr.1](#));

(c) A preliminary assessment of the possible impact of the proposed exploration activities on the marine environment;

(d) A description of proposed measures for the prevention, reduction and control of pollution and other hazards, as well as possible impacts, to the marine environment;

(e) Data necessary for the Council to make the determination required under regulation 12, paragraph 1;

(f) A schedule of expected yearly expenditure in respect of the programme of activities for the first five-year period.

30. In response to questions, the applicant informed the Commission that it would undertake a desktop environmental risk assessment as part of an environmental impact assessment scoping study to identify and rank the potential impacts of its activities at the beginning of the exploration phase. The applicant also agreed to take into greater account the extent of spatial and temporal variability of the environmental and faunal communities across the contract area when finalizing its detailed sampling programme.

VII. Training

31. The Commission noted the applicant's intention to submit a detailed training proposal prior to the commencement of exploration under the contract, in accordance with regulation 27 and section 8 of annex IV to the regulations, with berths made available to nationals of developing States during all cruises. In each of the five-year periods of its exploration programme, the applicant plans to offer up to 10 training opportunities and to contribute to the training activities of the Authority. The applicant indicated that the initial focus would be on at-sea training.

32. In addition, the applicant informed the Commission that it would collaborate with its sponsoring State to provide Jamaican nationals with the opportunity to gain knowledge and experience relevant to the seabed minerals industry.

VIII. Conclusion and recommendations

33. Having examined the particulars submitted by the applicant, as summarized in sections III to VII above, the Commission is satisfied that the application has been duly submitted in accordance with the regulations and that the applicant is a qualified applicant within the meaning of annex III, article 4, to the Convention and regulation 17.

34. The Commission is also satisfied that the applicant:

- (a) Has complied with the provisions of the regulations;
- (b) Has given the undertakings and assurances specified in regulation 14;
- (c) Possesses the financial and technical capabilities to carry out the proposed plan of work for exploration.

35. The Commission is further satisfied that none of the conditions in regulation 21, paragraph 6, apply.

36. The Commission is satisfied that the proposed plan of work for exploration will:

- (a) Provide for effective protection of human health and safety;
- (b) Provide for effective protection and preservation of the marine environment, including, but not restricted to, the impact on biodiversity;
- (c) Ensure that installations are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity.

37. Accordingly, pursuant to paragraph 5 of regulation 21, the Commission recommends to the Council approval of the plan of work for exploration for polymetallic nodules submitted by Blue Minerals Jamaica Ltd.

Annex I

List of coordinates of the area under application

Block	Turning point	Format 2 (degree/minute/second format)							
		Format 1 (decimal degree format)		Latitude (N)			Longitude (W)		
		Latitude (N)	Longitude (W)	Degrees	Minutes.	Seconds	Degrees	Minutes	Seconds
A	1	13.1800	-135.0700	13	10	48.00	135	4	12.00
	2	13.1800	-134.7500	13	10	48.00	134	45	0.00
	3	10.9800	-134.7500	10	58	48.00	134	45	0.00
	4	10.9800	-135.0000	10	58	48.00	135	0	0.00
	5	11.2500	-135.0000	11	15	0.00	135	0	0.00
	6	11.2500	-135.3333	11	15	0.00	135	19	59.88
	7	10.9167	-135.3333	10	55	0.12	135	19	59.88
	8	10.9167	-136.0000	10	55	0.12	136	0	0.00
	9	10.1470	-136.0000	10	8	49.20	136	0	0.00
	10	10.1470	-137.0000	10	8	49.20	137	0	0.00
	11	10.8333	-137.0000	10	49	59.88	137	0	0.00
	12	10.8333	-136.5800	10	49	59.88	136	34	48.00
	13	11.6500	-136.5800	11	39	0.00	136	34	48.00
	14	11.6500	-137.3460	11	39	0.00	137	20	45.60
	15	12.1250	-137.3460	12	7	30.00	137	20	45.60
	16	12.1250	-136.7700	12	7	30.00	136	46	12.00
	17	12.2300	-136.7700	12	13	48.00	136	46	12.00
	18	12.2300	-135.8900	12	13	48.00	135	53	24.00
	19	12.1000	-135.8900	12	5	60.00	135	53	24.00
	20	12.1000	-135.4400	12	5	60.00	135	26	24.00
	21	12.3700	-135.4400	12	22	12.00	135	26	24.00
	22	12.3700	-134.8900	12	22	12.00	134	53	24.00
	23	12.7300	-134.8900	12	43	48.00	134	53	24.00
	24	12.7300	-135.0700	12	43	48.00	135	4	12.00
	25	13.1800	-135.0700	13	10	48.00	135	4	12.00
B	1	11.0000	-123.3330	11	0	0.00	123	19	58.80
	2	11.0000	-122.1670	11	0	0.00	122	10	1.20
	3	9.8333	-122.1670	9	49	59.88	122	10	1.20
	4	9.8333	-123.3330	9	49	59.88	123	19	58.80
	5	11.0000	-123.3330	11	0	0.00	123	19	58.80
C	1	10.5000	-121.7000	10	30	0.00	121	42	0.00
	2	10.5000	-121.5000	10	30	0.00	121	30	0.00
	3	9.6667	-120.7910	9	40	0.12	120	47	27.60
	4	9.3330	-120.7910	9	19	58.80	120	47	27.60
	5	9.3330	-121.7000	9	19	58.80	121	42	0.00
	6	10.5000	-121.7000	10	30	0.00	121	42	0.00

		<i>Format 2 (degree/minute/second format)</i>							
		<i>Format 1 (decimal degree format)</i>		<i>Latitude (N)</i>			<i>Longitude (W)</i>		
<i>Block</i>	<i>Turning point</i>	<i>Latitude (N)</i>	<i>Longitude (W)</i>	<i>Degrees</i>	<i>Minutes.</i>	<i>Seconds</i>	<i>Degrees</i>	<i>Minutes</i>	<i>Seconds</i>
D	1	10.5000	-120.3500	10	30	0.00	120	20	60.00
	2	10.5000	-120.0000	10	30	0.00	120	0	0.00
	3	9.6667	-120.0000	9	40	0.12	120	0	0.00
	4	9.6667	-120.3500	9	40	0.12	120	20	60.00
	5	10.5000	-120.3500	10	30	0.00	120	20	60.00

Annex II

Map of the general location of the area under application (blocks A, B, C and D) within reserved areas of the Clarion-Clipperton Fracture Zone

