

I. ANNEX

ISA Contract for Exploration – Public Information Template

	Type of resource: Polymetallic nodules
	Name of Contractor: Interoceanmetal Joint Organization
	Contract Start: 29 March 2001
Sponsoring State: Republic of <i>Bulgaria</i> , Republic of Cuba, the Czech Republic, Republic of Poland, the Russian Federation and Slovak Republic	Contract End: 29 March 2021
	Location: Eastern Pacific Clarion Clipperton Fracture Zone

Contents

Introduction	2
1. Contract Information	2
2. Coordinates and Illustrative Chart of the Exploration Area.....	3
3. Plan of Work (approved by Council)	5
4. Programme of Activities and Exploration Expenditure.....	6
5. Training Programme	7
6. Standard clauses	10

Introduction

The information contained in this ISA Contract for Exploration – Public Information Template is made available to the public in response to the request by the Council of the ISA to make contracts publicly available, subject to restrictions on confidential information, industrial secrets and proprietary data.

The content of the present template is in accordance with the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area [ISBA/19/C/17] (the “Regulations”).

1. Contract Information

Annex III of the Regulations.

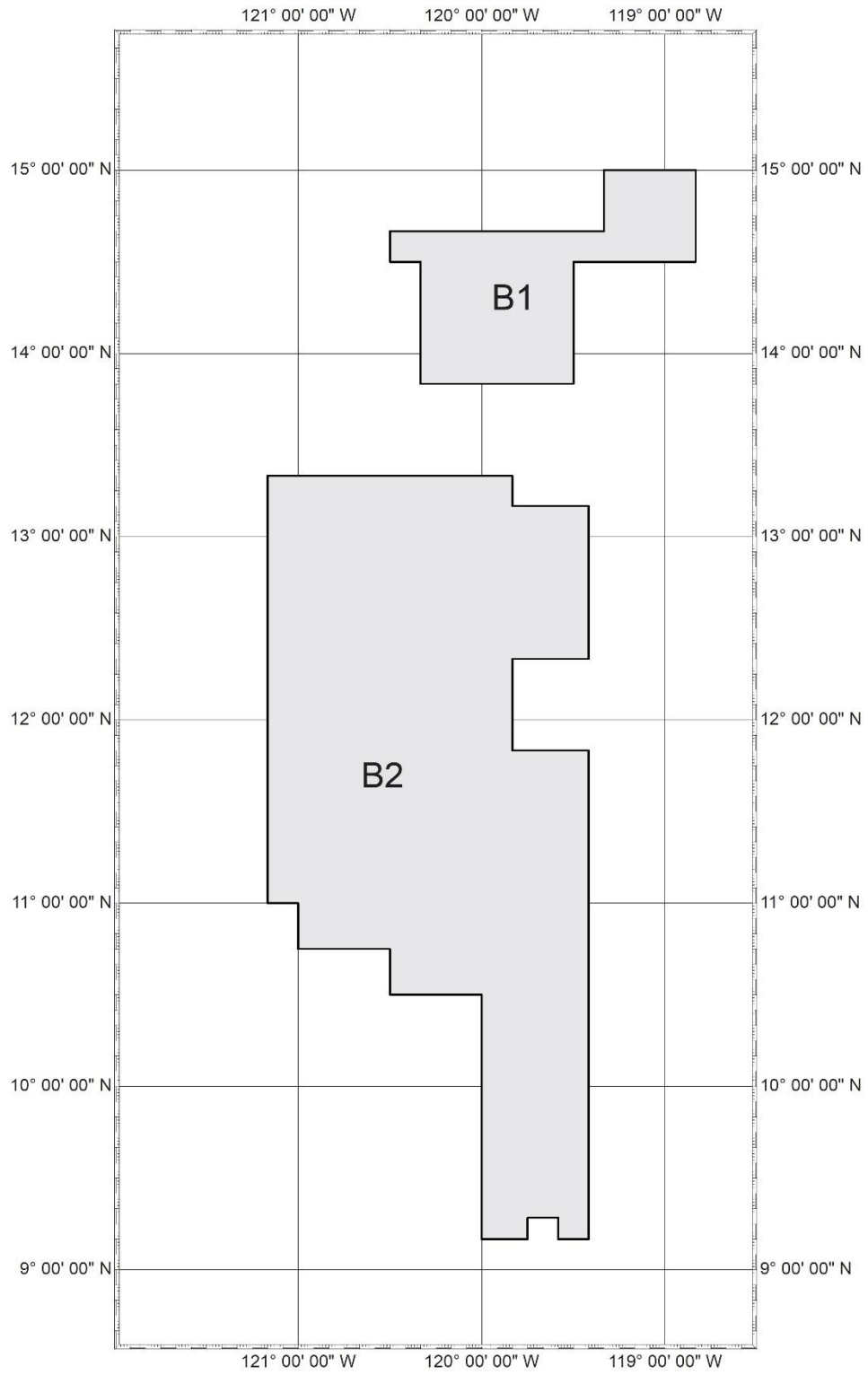
Type of resource	Polymetallic nodules
Name of Contractor	Interoceanmetal joint Organization
Contract Start	29 of March 2001
Contract End	29 of March 2021
Location	CCZ
Contract Area (km²)	75 000

2. Coordinates and Illustrative Chart of the Exploration Area

Schedule 1 of Annex III of the Regulations. Exploration area located between:

Sector B1:	Longitude	Latitude
1	119° 20' 00.0000" W	15° 00' 00.0000" N
2	118° 50' 00.0000" W	15° 00' 00.0000" N
3	118° 50' 00.0000" W	14° 30' 00.0000" N
4	119° 30' 00.0000" W	14° 30' 00.0000" N
5	119° 30' 00.0000" W	13° 50' 00.0000" N
6	120° 20' 00.0000" W	13° 50' 00.0000" N
7	120° 20' 00.0000" W	14° 30' 00.0000" N
8	120° 30' 00.0000" W	14° 30' 00.0000" N
9	120° 30' 00.0000" W	14° 40' 00.0000" N
10	119° 20' 00.0000" W	14° 40' 00.0000" N
11	119° 20' 00.0000" W	15° 00' 00.0000" N

Sector B2:	Longitude	Latitude
1	121° 10' 00.0000" W	13° 20' 00.0000" N
2	119° 50' 00.0000" W	13° 20' 00.0000" N
3	119° 50' 00.0000" W	13° 10' 00.0000" N
4	119° 25' 00.0000" W	13° 10' 00.0000" N
5	119° 25' 00.0000" W	12° 20' 00.0000" N
6	119° 50' 00.0000" W	12° 20' 00.0000" N
7	119° 50' 00.0000" W	11° 50' 00.0000" N
8	119° 25' 00.0000" W	11° 50' 00.0000" N
9	119° 25' 00.0000" W	9° 10' 00.0000" N
10	119° 35' 00.0000" W	9° 10' 00.0000" N
11	119° 35' 00.0000" W	9° 17' 00.0000" N
12	119° 45' 00.0000" W	9° 17' 00.0000" N
13	119° 45' 00.0000" W	9° 10' 00.0000" N
14	120° 00' 00.0000" W	9° 10' 00.0000" N
15	120° 00' 00.0000" W	10° 30' 00.0000" N
16	120° 30' 00.0000" W	10° 30' 00.0000" N
17	120° 30' 00.0000" W	10° 45' 00.0000" N
18	121° 00' 00.0000" W	10° 45' 00.0000" N
19	121° 00' 00.0000" W	11° 00' 00.0000" N
20	121° 10' 00.0000" W	11° 00' 00.0000" N
21	121° 10' 00.0000" W	13° 20' 00.0000" N



3. Plan of Work

Summary of Plan of Work for Exploration including the Programme of Activities for the first and/or the current 5-year period (Regulation 18).

The summary of activities covered by the programme consist of: The determination and delineation of polymetallic nodule deposits which could be developed in an optimal market situation in the future, together with the selection of mineable blocks intended for detailed exploration; the delineation of ore deposits and blocks lying within the mineable blocks selected for detailed exploration; detailed research on the block for the best prospects for exploitation to determine its resources potential; to delineate a preliminary five-year mineable block; to analyze the resources and methods to be used for exploitation; geotechnical research aimed at the determination of input data relating to mineral deposit areas and experimental engineering works that will be performed as part of the development of deep-water nodule mining technology; research required for the development of nodule processing technology, including the use of a large volume of nodule samples retrieved from the area under exploration; research in the field of nodule mining technology, particularly the preparation of design implementation and solutions for pilot mining operations; marine exploration for environmental protection in accordance with the Convention, the Regulations and Recommendations of the Authority as well as other environmental best practices; the establishment of preservation reference zones and impact reference zones; and continued work on the preparation of a bankable feasibility study. During the extension period, the Contractor also intends to cooperate with other contractors and the Authority to proceed with a full-scale test and share results on environmental studies and monitoring.

In geological terms the work will continue on the identification of additional exploration blocks within the B2 field of the area under exploration and studies within the existing exploration blocks including more detailed research necessary for the assessment of polymetallic nodule resources/reserves. The methods planned by the contractor are the following: bathymetric mapping; hydro-acoustic profiling; photo-profiling; sample retrieval with a boxcorer; sample retrieval with a gravity corer; accompanying geotechnical works at sample retrieval stations; specialized geotechnical works.

The programme on environmental baseline studies and monitoring - In order to establish comprehensive environmental baselines, the Contractor will carry out sampling by using CTD casts, boxcorer sampling for biological analyses, photo profiling and trawling. The number of sampling stations will be set in compliance with environmental best practices. Samples will also be used for quantitative studies and serve for the assessment of the number, size and locality of one, or more, preservation reference zones.

During the extension period, the Contractor is planning to collect baseline data on the physical and chemical oceanography; sediment properties, including pore water chemistry; biological communities: megafauna (abundance, species structure, biomass and diversity will be obtained from the analysis of seafloor photographs and video transects; macrofauna (abundance, species structure, biomass and diversity will be obtained from sediment samples. The work on identification of preservation reference zones and impact reference zones will be continued.

4. Programme of Activities and Exploration Expenditure

Section 4.1 of Annex IV of the Regulations and Schedule 2 of Annex III of the Regulations.

5. Training Programme

Schedule 3 of Annex III of the Regulations.

I. Training Programme

Type of training	Multidisciplinary training in the field of polymetallic nodules project management	Multidisciplinary training in the field of polymetallic nodules project management
Institutions	<ol style="list-style-type: none"> 1. Interoceanmetal Joint Organization, Szczecin, Poland 2. Natural Sciences Education and Research Centre, University of Szczecin, Poland 3. Department of Geotechnical Engineering, West Pomeranian University of Technology, Szczecin, Poland 4. Polish Geological Institute – National Research Institute, Pomeranian Branch, Szczecin, Poland 5. Polish Geological Institute – National Research Institute, Marine Geology Branch, Gdansk, Poland 6. Department of Metals and Corrosion Engineering, University of Chemistry and Technology, Prague, Czech Republic 	<ol style="list-style-type: none"> 1. Interoceanmetal Joint Organization, Szczecin, Poland 2. Natural Sciences Education and Research Centre, University of Szczecin, Poland 3. Polish Geological Institute – National Research Institute, Pomeranian Branch, Szczecin, Poland 4. Department of Metals and Corrosion Engineering, University of Chemistry and Technology, Prague, Czech Republic
Duration	6 weeks 03 Sept – 12 Oct 2018	6 weeks 02 Sept – 11 Oct 2019
Scope	<p>Marine minerals project management;</p> <p>Marine geology, engineering geology, economic geology;</p> <p>Preservation and protection of marine environment, environmental strategies for exploration and mining;</p> <p>Introduction to mining and processing technologies;</p> <p>laboratory work and scientific techniques for polymetallic nodules analysis and metallurgical processing by developing planning, data analysis and interpretation skills</p>	<p>Marine minerals project management;</p> <p>Marine geology, engineering geology, economic geology;</p> <p>Preservation and protection of marine environment, environmental strategies for exploration and mining;</p> <p>Introduction to mining and processing technologies;</p> <p>laboratory work and scientific techniques for polymetallic nodules analysis and metallurgical processing by developing planning, data analysis and interpretation skills</p>
Fields	Marine geology, Marine environment, Mining engineering, Engineering geology, Economic geology, Metallurgy	Marine geology, Marine environment, Mining engineering, Engineering geology, Economic geology, Metallurgy

Qualification required	<p>Education: Bachelor or Engineering degree in natural sciences, applied sciences, technology or engineering;</p> <p>Work experience: at least one year of experience in the field of specialization;</p> <p>Language: sufficient knowledge of English attested by a certificate;</p> <p>Health: proof of being in good mental and physical health;</p> <p>Visa Requirements: Eligibility to apply for a Schengen visa;</p> <p>Age: under 40 years of age</p>	<p>Education: Bachelor or Engineering degree in natural sciences, applied sciences, technology or engineering;</p> <p>Work experience: at least one year of experience in the field of specialization;</p> <p>Language: sufficient knowledge of English attested by a certificate;</p> <p>Health: proof of being in good mental and physical health;</p> <p>Visa Requirements: Eligibility to apply for a Schengen visa;</p> <p>Age: under 40 years of age</p>
Financing	Fully by IOM	<u>Fully by IOM</u>

II. Trainings conducted up to reported year [#]: [year]

Start year	End Year	Name of Trainee	Nationality	Gender	Type of Programme	Details	Duration
2018	2018	Karina Melias Astriandhita	Indonesia	Female	internship	six (6) weeks multidisciplinary training in the field of polymetallic nodules project management (including legal framework, exploration activities, environmental research, economic cycle and metallurgical processing)	3 Sept – 10 Oct 2018
2018	2018	Mohamed Saad Gaballah Awad	Egypt	Male	Internship	six (6) weeks multidisciplinary training in the field of polymetallic nodules project management (including legal framework, exploration activities, environmental research, economic cycle and metallurgical processing)	3 Sept – 10 Oct 2018
2019	2019	Thiwaporn Phonsit	Thailand	Female	Internship	six (6) weeks multidisciplinary training in the field of polymetallic nodules project management including exploration, value chain and economic factors, environmental	2 Sept – 11 Oct 2019
2019	2019	Jonathan Jonah	Nigeria	Male	Internship	six (6) weeks multidisciplinary training in the field of polymetallic nodules project management including exploration, value chain and economic factors, environmental	2 Sept – 11 Oct 2019

						research and metallurgical processing	
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III. Completed Trainings per Year

		[Name of the programme described in the Contract]	[Name of the programme described in the Contract]
Year 1 2016			
Year 2 2017			
Year 3 2018	2		
Year 4 2019	2		
Year 5 2020	2 - The programme proposal has been sent to the ISA Secretariat, candidates are selected.		

6. Standard clauses

Annex IV of the Regulations.