



Council

Distr.: General
25 February 2013

Original: English

Nineteenth session
Kingston, Jamaica
15-26 July 2013

Report and recommendations of the Legal and Technical Commission to the Council of the International Seabed Authority relating to an application for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts by Japan Oil, Gas and Metals National Corporation

I. Introduction

1. On 3 August 2012, the Secretary-General of the International Seabed Authority received an application from the Japan Oil, Gas and Metals National Corporation (JOGMEC) for the approval of a plan of work for exploration for cobalt-rich ferromanganese crusts in the Area (see ISBA/19/LTC/4). The application was submitted pursuant to the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area (ISBA/18/A/11, annex). The application covers a total surface area of 3,000 square kilometres, located to the east of Minami-Torishima Island in the Western Pacific.

2. In accordance with regulation 22 (c) of the Regulations, by a note verbale dated 28 August 2012, the Secretary-General notified the members of the International Seabed Authority of the receipt of the application and circulated information of a general nature concerning the application. The Secretary-General also placed consideration of the application on the agenda of the meeting of the Legal and Technical Commission held from 4 to 8 February 2013.

II. Methodology for 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 scheme established in article 6 of annex III to the United Nations Convention on the Law of the Sea, it was first required to make an objective



determination as to whether the applicant had fulfilled the requirements contained in the Regulations, particularly with respect to the form of applications; whether the applicant had provided the necessary undertakings and assurances specified in regulation 15; and whether it had the necessary financial and technical capability to carry out the proposed plan of work for exploration. The Commission is then required to determine, in accordance with regulation 23, paragraph 4, whether the proposed plan of work will provide for effective protection of human health and safety and effective protection and preservation of the marine environment and will 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. Regulation 23, paragraph 5, provides that, if the Commission makes the determinations specified in paragraph 3 of regulation 23 and determines that the proposed plan of work for exploration meets the requirements of 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 cobalt-rich ferromanganese crusts, the Commission took into account the principles, policies and objectives relating to activities in the Area as provided for in part XI and annex III of the Convention and in the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea.

B. Consideration of the application

5. The Commission considered the application in closed meetings on 4, 6 and 7 February 2013.

6. Prior to commencing a detailed examination of the application, the Commission invited the applicant's representative, Yoshiyuki Kita, Deputy Director-General of JOGMEC, to make a presentation of the application. The following members of the delegation made statements: Keita Koda, Deputy Director; Akira Usui, Chair of the JOGMEC committee on cobalt-rich ferromanganese crusts; and Yoshihisa Shirayama, Executive Director of Research at the Japan Agency for Marine-Earth Science and Technology (JAMSTEC). In their questions and comments, members of the Commission commended the applicant on its presentation and asked legal, technical and environmental questions to elicit further details of the application before convening in closed session to examine the application in detail.

III. Summary of basic information regarding the application

A. Identification of the applicant

7. The name and address of the applicant are as follows:

- (a) Name: Japan Oil, Gas and Metals National Corporation (JOGMEC);
- (b) Street address: Toramon Twin Building, 2-10-1, Toranomom, Minato-ku, Tokyo 105-0001, Japan;
- (c) Postal address: as above;

- (d) Telephone number: +81-3-6758-8000;
 - (e) Facsimile number: +81-3-6758-8008;
 - (f) E-mail address: isa-jogmec@jogmec.go.jp.
8. The applicant's designated representative is:
- (a) Name: Hirobumi Kawano, President of JOGMEC;
 - (b) Street and postal addresses: as above;
 - (c) Telephone number: +81-3-6758-8030;
 - (d) Facsimile number: +81-3-6758-8060;
 - (e) E-mail address: as above;
 - (f) Place of registration and principal place of business/domicile: 2-10-1 Toranomon, Minato-ku, Tokyo, 105-0001, Japan.
9. The applicant provided a certified copy of its certificate of registration as of 6 June 2012. The applicant states that it is a State enterprise, established under Law No. 94, 2002, which implements national policies on securing natural resources and energy as an agency of the sponsoring State, and is the sole organization undertaking exploration for oil, gas, hydrate methane and cobalt-rich ferromanganese crusts. Its activities relate to resource exploration and evaluation, financing mineral resources projects, research and development in mining, stockpiling oil, gas and rare metals, marine pollution control and environmental preservation measures.

B. Sponsorship

10. The sponsoring State is Japan. The sponsoring State enacted the 1982 Act on interim measures for deep sea mining and its ordinance.
11. The date of deposit of the sponsoring State's instrument of ratification of the United Nations Convention on the Law of the Sea and date of its consent to be bound by the Agreement relating to the implementation of Part XI of the Convention is 20 June 1996.
12. The certificate of sponsorship is dated 26 July 2012; it was issued by Hiroshi Yamaguchi, Permanent Representative of Japan to the International Seabed Authority.
13. The certificate of sponsorship states that the nationality of the applicant is Japanese and that the sponsoring State sponsors the applicant in accordance with paragraph 2 (b) of article 153 of the United Nations Convention on the Law of the Sea and paragraph 4 of article 4 of annex III to the Convention and subject to its relevant national laws and regulations.

C. Area of application

14. The area comprises 150 blocks, each with an area of 20 square kilometres, and is located over six seamounts. The blocks are grouped into eight clusters, each containing 5 to 40 contiguous blocks. Each block is rectangular in shape, measuring

five kilometres from east to west and four kilometres from north to south. All the blocks are located entirely within a geographical area measuring not more than 545 kilometres from east to west and 550 kilometres from north to south, or 299,750 square kilometres. The coordinates and general location of the area under application are shown in the annexes to the present document. This is in compliance with regulation 12.

D. Other information

15. The applicant has not been previously awarded any contract with the Authority.

16. The application included a written undertaking dated 26 July 2012 and signed by the designated representative of the applicant in accordance with regulation 15. This was superseded by a written undertaking dated 28 July 2012 and also signed by the designated representative of the applicant.

17. The applicant elects to offer an equity interest in a joint venture arrangement in accordance with regulation 19.

18. The applicant has paid a fee of \$500,000 in accordance with regulation 21.

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

19. The following technical documents and information were provided:

- (a) Information relating to the area under application:
 - (i) Charts of the location of the blocks;
 - (ii) A list of the coordinates of the blocks under application;
- (b) A certificate of sponsorship;
- (c) Information to enable the Council to determine whether the applicant is financially capable of carrying out the proposed plan of work for exploration;
- (d) Information to enable the Council to determine whether the applicant is technically capable of carrying out the proposed plan of work for exploration;
- (e) Plan of work for exploration;
- (f) Training programme;
- (g) Written undertakings by the applicant.

V. Consideration of financial and technical qualifications of the applicant

A. Financial capacity

20. The applicant declared its financial capacity to carry out the proposed plan of work for exploration and fulfilled its financial obligations to the Authority. In

evaluating the financial capacity of the applicant, the Commission noted that the applicant provided a financial statement dated 6 July 2012 and duly signed by Yukio Edano, Minister of Economy, Trade and Industry of Japan, certifying the financial capability of the applicant to implement the proposed plan of work. The applicant also provided copies of its audited financial statements, including balance sheets and profit-and-loss statements, for the most recent fiscal years (2008, 2009 and 2010). The applicant stated that it would not make any borrowings to finance the proposed plan of work for exploration.

B. Technical capacity

21. The applicant stated that while it had not held any previous contracts with the Authority, it had been the sole Japanese government institution responsible for exploring for deep-sea resources since 1975 and had been conducting studies of cobalt-rich ferromanganese crusts in the Japanese exclusive economic zone and the Area since 1987.

22. In evaluating the technical capacity of the applicant, the Commission noted that the applicant had provided extensive details concerning its technical capabilities, including details of past research cruises associated with cobalt-rich ferromanganese crust studies, research and development of processing and metallurgy for cobalt-rich ferromanganese crusts and a preliminary environmental baseline survey in the application area from 1997 to 2010. The applicant has selected 150 blocks mainly on the top of seamounts where cobalt-rich ferromanganese crusts are not buried in sediments. The applicant stated that it would follow a precautionary approach and would collect the necessary environmental information from the planning stage of the exploration work, in order to comply with the draft environmental management regulations regarding deep-sea floor minerals developed by the International Marine Minerals Society. The applicant indicated that the environmental studies of impacts would focus on the identified mining areas and their surroundings, including the potential disturbance of the environment on the slopes deeper than the mining area. The studies will also focus on identifying the biota source region which will enable recolonization to take place and ensure that there is no irreversible damage to ecosystem structure and function. The applicant also stated that it would follow any recommendations issued by the Legal and Technical Commission and further developments concerning environmental impact assessments. The applicant mentioned that it had signed an agreement with JAMSTEC enabling the facilities of JOGMEC or JAMSTEC to be used, depending on the requirements.

23. The applicant provided information related to the prevention, reduction and control of hazards and possible impacts to the marine environment. The applicant stated that the proposed activities were not expected to cause any substantial pollution or significant or harmful changes to the marine environment, but should it become apparent that there might be impacts, they would be evaluated at that time. The applicant provided details of environmental mitigation measures to prevent, reduce and control pollution of the marine environment and other hazards.

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

24. In accordance with regulation 20 of the Regulations, the application includes the following information for approval of the plan of work for exploration:

(a) A general description and a 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 of the proposed exploration activities, including, but not restricted to, the impact on biodiversity, taking into account any recommendations issued by the Legal and Technical Commission;

(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 it is required to make in accordance with regulation 13, paragraph 1, of the Regulations;

(f) A schedule of anticipated yearly expenditures in respect of the programme of activities for the immediate five-year period.

25. The Commission was fully satisfied that the information presented met the requirements of the Regulations and noted that it looked forward to the submission of reports, including relevant data, by the applicant as required by the Regulations and any recommendations for guidance to be issued by the Commission in due course. The Commission also acknowledged with appreciation that the applicant's representatives had indicated their willingness to provide the Authority with access to extensive data sets from survey and exploration of cobalt-rich ferromanganese crusts conducted by the applicant over many years.

VII. Training programme

26. The applicant stated that it had a good track record in technical capacity-building in developing countries and in cooperation with the Secretariat of the Pacific Community and the Japan International Cooperation Agency. The applicant indicated that in cooperation with JAMSTEC and universities it would offer training programmes on topics relating to the exploration for and development of marine resources, such as exploration technology, mining and processing technology, marine science, environmental management and mining pollution protection, with the aim of transferring related technologies to developing States. For the training programmes for engineers from the Authority and developing States, the facilities and equipment of either the applicant or JAMSTEC would be utilized depending on

the content of the programmes. The applicant further stated that the content, including the number of trainees, timing and organizational structure of the training programmes, would be designed in consultation with the Authority and the sponsoring State.

VIII. Conclusion and recommendations

27. Having examined the particulars submitted by the applicant, which are 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:

- (a) Has complied with the provisions of the Regulations;
- (b) Has given the undertakings and assurances specified in regulation 15;
- (c) Possesses the financial and technical capability to carry out the proposed plan of work for exploration.

28. The Commission states that none of the conditions in regulation 23, paragraph 6, of the Regulations apply.

29. 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;
- (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.

30. Accordingly, pursuant to regulation 23, paragraph 5, of the Regulations, the Commission recommends to the Council approval of the plan of work for exploration submitted by JOGMEC.

List of coordinates of the area under application

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>	
C1	1	/150	2,380,000	525,000	20.0	21	31	21.1544	159	14	29.0361
			2,384,000	525,000		21	33	31.2583	159	14	29.2512
			2,384,000	530,000		21	33	30.9812	159	17	23.0999
			2,380,000	530,000		21	31	20.8779	159	17	22.8418
	2	/150	2,384,000	525,000	20.0	21	33	31.2583	159	14	29.2512
			2,388,000	525,000		21	35	41.3615	159	14	29.4668
			2,388,000	530,000		21	35	41.0840	159	17	23.3586
			2,384,000	530,000		21	33	30.9812	159	17	23.0999
	3	/150	2,388,000	525,000	20.0	21	35	41.3615	159	14	29.4668
			2,392,000	525,000		21	37	51.4643	159	14	29.6829
			2,392,000	530,000		21	37	51.1862	159	17	23.6179
			2,388,000	530,000		21	35	41.0840	159	17	23.3586
	4	/150	2,384,000	530,000	20.0	21	33	30.9812	159	17	23.0999
			2,388,000	530,000		21	35	41.0840	159	17	23.3586
			2,388,000	535,000		21	35	40.7560	159	20	17.2496
			2,384,000	535,000		21	33	30.6538	159	20	16.9478
	5	/150	2,388,000	530,000	20.0	21	35	41.0840	159	17	23.3586
			2,392,000	530,000		21	37	51.1862	159	17	23.6179
			2,392,000	535,000		21	37	50.8576	159	20	17.5521
			2,388,000	535,000		21	35	40.7560	159	20	17.2496
	6	/150	2,372,000	535,000	20.0	21	27	00.3440	159	20	16.0461
			2,376,000	535,000		21	29	10.4478	159	20	16.3460
			2,376,000	540,000		21	29	10.0714	159	23	10.1069
			2,372,000	540,000		21	26	59.9683	159	23	09.7641
	7	/150	2,376,000	535,000	20.0	21	29	10.4478	159	20	16.3460
			2,380,000	535,000		21	31	20.5511	159	20	16.6466
			2,380,000	540,000		21	31	20.1740	159	23	10.4504
			2,376,000	540,000		21	29	10.0714	159	23	10.1069

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>	
	8	/150	2,380,000	535,000		21	31	20.5511	159	20	16.6466
			2,384,000	535,000		21	33	30.6538	159	20	16.9478
			2,384,000	540,000		21	33	30.2761	159	23	10.7947
			2,380,000	540,000	20.0	21	31	20.1740	159	23	10.4504
	9	/150	2,384,000	535,000		21	33	30.6538	159	20	16.9478
			2,388,000	535,000		21	35	40.7560	159	20	17.2496
			2,388,000	540,000		21	35	40.3775	159	23	11.1396
			2,384,000	540,000	20.0	21	33	30.2761	159	23	10.7947
	10	/150	2,376,000	540,000		21	29	10.0714	159	23	10.1069
			2,380,000	540,000		21	31	20.1740	159	23	10.4504
			2,380,000	545,000		21	31	19.7467	159	26	04.2531
			2,376,000	545,000	20.0	21	29	09.6449	159	26	03.8667
	11	/150	2,384,000	540,000		21	33	30.2761	159	23	10.7947
			2,388,000	540,000		21	35	40.3775	159	23	11.1396
			2,388,000	545,000		21	35	39.9486	159	26	05.0285
			2,384,000	545,000	20.0	21	33	29.8479	159	26	04.6404
	12	/150	2,388,000	540,000		21	35	40.3775	159	23	11.1396
			2,392,000	540,000		21	37	50.4784	159	23	11.4853
			2,392,000	545,000		21	37	50.0487	159	26	05.4173
			2,388,000	545,000	20.0	21	35	39.9486	159	26	05.0285
	13	/150	2,384,000	545,000		21	33	29.8479	159	26	04.6404
			2,388,000	545,000		21	35	39.9486	159	26	05.0285
			2,388,000	550,000		21	35	39.4692	159	28	58.9160
			2,384,000	550,000	20.0	21	33	29.3694	159	28	58.4849
	14	/150	2,388,000	545,000		21	35	39.9486	159	26	05.0285
			2,392,000	545,000		21	37	50.0487	159	26	05.4173
			2,392,000	550,000		21	37	49.5684	159	28	59.3481
			2,388,000	550,000	20.0	21	35	39.4692	159	28	58.9160
	15	/150	2,392,000	545,000		21	37	50.0487	159	26	05.4173
			2,396,000	545,000		21	40	00.1482	159	26	05.8070
			2,396,000	550,000		21	39	59.6671	159	28	59.7811

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,392,000	550,000	20.0	21	37	49.5684	159	28	59.3481
	16 /150	2,368,000	550,000		21	24	48.9645	159	28	56.7692
		2,372,000	550,000		21	26	59.0666	159	28	57.1967
		2,372,000	555,000		21	26	58.5406	159	31	50.9110
		2,368,000	555,000	20.0	21	24	48.4395	159	31	50.4407
	17 /150	2,380,000	550,000		21	31	19.2690	159	28	58.0546
		2,384,000	550,000		21	33	29.3694	159	28	58.4849
		2,384,000	555,000		21	33	28.8405	159	31	52.3279
		2,380,000	555,000	20.0	21	31	18.7411	159	31	51.8546
	18 /150	2,384,000	550,000		21	33	29.3694	159	28	58.4849
		2,388,000	550,000		21	35	39.4692	159	28	58.9160
		2,388,000	555,000		21	35	38.9393	159	31	52.8022
		2,384,000	555,000	20.0	21	33	28.8405	159	31	52.3279
	19 /150	2,364,000	555,000		21	22	38.3379	159	31	49.9714
		2,368,000	555,000		21	24	48.4395	159	31	50.4407
		2,368,000	560,000		21	24	47.8645	159	34	44.1107
		2,364,000	560,000	20.0	21	22	37.7639	159	34	43.5987
	20 /150	2,368,000	555,000		21	24	48.4395	159	31	50.4407
		2,372,000	555,000		21	26	58.5406	159	31	50.9110
		2,372,000	560,000		21	26	57.9645	159	34	44.6237
		2,368,000	560,000	20.0	21	24	47.8645	159	34	44.1107
	21 /150	2,372,000	555,000		21	26	58.5406	159	31	50.9110
		2,376,000	555,000		21	29	08.6411	159	31	51.3823
		2,376,000	560,000		21	29	08.0640	159	34	45.1379
		2,372,000	560,000	20.0	21	26	57.9645	159	34	44.6237
	22 /150	2,376,000	555,000		21	29	08.6411	159	31	51.3823
		2,380,000	555,000		21	31	18.7411	159	31	51.8546
		2,380,000	560,000		21	31	18.1629	159	34	45.6531
		2,376,000	560,000	20.0	21	29	08.0640	159	34	45.1379
	23 /150	2,380,000	555,000		21	31	18.7411	159	31	51.8546
		2,384,000	555,000		21	33	28.8405	159	31	52.3279

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,384,000	560,000		21	33	28.2612	159	34	46.1695
		2,380,000	560,000	20.0	21	31	18.1629	159	34	45.6531
	24 /150	2,372,000	560,000		21	26	57.9645	159	34	44.6237
		2,376,000	560,000		21	29	08.0640	159	34	45.1379
		2,376,000	565,000		21	29	07.4366	159	37	38.8918
		2,372,000	565,000	20.0	21	26	57.3383	159	37	38.3348
	25 /150	2,376,000	560,000		21	29	08.0640	159	34	45.1379
		2,380,000	560,000		21	31	18.1629	159	34	45.6531
		2,380,000	565,000		21	31	17.5344	159	37	39.4499
		2,376,000	565,000	20.0	21	29	07.4366	159	37	38.8918
	26 /150	2,380,000	560,000		21	31	18.1629	159	34	45.6531
		2,384,000	560,000		21	33	28.2612	159	34	46.1695
		2,384,000	565,000		21	33	27.6315	159	37	40.0093
		2,380,000	565,000	20.0	21	31	17.5344	159	37	39.4499
	27 /150	2,364,000	560,000		21	22	37.7639	159	34	43.5987
		2,368,000	560,000		21	24	47.8645	159	34	44.1107
		2,368,000	565,000		21	24	47.2395	159	37	37.7790
		2,364,000	565,000	20.0	21	22	37.1400	159	37	37.2243
	28 /150	2,360,000	565,000		21	20	27.0400	159	37	36.6708
		2,364,000	565,000		21	22	37.1400	159	37	37.2243
		2,364,000	570,000		21	22	36.4662	159	40	30.8481
		2,360,000	570,000	20.0	21	20	26.3675	159	40	30.2521
	29 /150	2,368,000	565,000		21	24	47.2395	159	37	37.7790
		2,372,000	565,000		21	26	57.3383	159	37	38.3348
		2,372,000	570,000		21	26	56.6620	159	40	32.0440
		2,368,000	570,000	20.0	21	24	46.5644	159	40	31.4454
	30 /150	2,352,000	570,000		21	16	06.1683	159	40	29.0637
		2,356,000	570,000		21	18	16.2682	159	40	29.6573
		2,356,000	575,000		21	18	15.5471	159	43	23.1941
		2,352,000	575,000	20.0	21	16	05.4486	159	43	22.5581
	31 /150	2,356,000	570,000		21	18	16.2682	159	40	29.6573

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,360,000	570,000		21	20	26.3675	159	40	30.2521
		2,360,000	575,000		21	20	25.6451	159	43	23.8314
		2,356,000	575,000	20.0	21	18	15.5471	159	43	23.1941
	32 /150	2,364,000	570,000		21	22	36.4662	159	40	30.8481
		2,368,000	570,000		21	24	46.5644	159	40	31.4454
		2,368,000	575,000		21	24	45.8394	159	43	25.1100
		2,364,000	575,000	20.0	21	22	35.7425	159	43	24.4700
	33 /150	2,368,000	570,000		21	24	46.5644	159	40	31.4454
		2,372,000	570,000		21	26	56.6620	159	40	32.0440
		2,372,000	575,000		21	26	55.9356	159	43	25.7513
		2,368,000	575,000	20.0	21	24	45.8394	159	43	25.1100
	34 /150	2,364,000	575,000		21	22	35.7425	159	43	24.4700
		2,368,000	575,000		21	24	45.8394	159	43	25.1100
		2,368,000	580,000		21	24	45.0643	159	46	18.7724
		2,364,000	580,000	20.0	21	22	34.9689	159	46	18.0897
	35 /150	2,364,000	580,000		21	22	34.9689	159	46	18.0897
		2,368,000	580,000		21	24	45.0643	159	46	18.7724
		2,368,000	585,000		21	24	44.2392	159	49	12.4325
		2,364,000	585,000	20.0	21	22	34.1453	159	49	11.7073
	36 /150	2,356,000	585,000		21	18	13.9558	159	49	10.2613
		2,360,000	585,000		21	20	24.0509	159	49	10.9835
		2,360,000	590,000		21	20	23.1790	159	52	04.5561
		2,356,000	590,000	20.0	21	18	13.0856	159	52	03.7914
	37 /150	2,360,000	585,000		21	20	24.0509	159	49	10.9835
		2,364,000	585,000		21	22	34.1453	159	49	11.7073
		2,364,000	590,000		21	22	33.2718	159	52	05.3224
		2,360,000	590,000	20.0	21	20	23.1790	159	52	04.5561
	38 /150	2,364,000	585,000		21	22	34.1453	159	49	11.7073
		2,368,000	585,000		21	24	44.2392	159	49	12.4325
		2,368,000	590,000		21	24	43.3641	159	52	06.0903
		2,364,000	590,000	20.0	21	22	33.2718	159	52	05.3224

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>	
C2	39	/150	2,356,000	590,000	20.0	21	18	13.0856	159	52	03.7914
			2,360,000	590,000		21	20	23.1790	159	52	04.5561
			2,360,000	595,000		21	20	22.2572	159	54	58.1262
			2,356,000	595,000		21	18	12.1656	159	54	57.3190
	40	/150	2,364,000	590,000	20.0	21	22	33.2718	159	52	05.3224
			2,368,000	590,000		21	24	43.3641	159	52	06.0903
			2,368,000	595,000		21	24	42.4389	159	54	59.7456
			2,364,000	595,000		21	22	32.3484	159	54	58.9350
	41	/150	2,344,000	595,000	20.0	21	11	41.8871	159	54	54.9077
			2,348,000	595,000		21	13	51.9805	159	54	55.7098
			2,348,000	600,000		21	13	51.0143	159	57	49.1501
			2,344,000	600,000		21	11	40.9227	159	57	48.3058
	42	/150	2,348,000	595,000	20.0	21	13	51.9805	159	54	55.7098
			2,352,000	595,000		21	16	02.0733	159	54	56.5135
			2,352,000	600,000		21	16	01.1053	159	57	49.9961
			2,348,000	600,000		21	13	51.0143	159	57	49.1501
	43	/150	2,344,000	600,000	20.0	21	11	40.9227	159	57	48.3058
			2,348,000	600,000		21	13	51.0143	159	57	49.1501
			2,348,000	605,000		21	13	49.9986	160	0	42.5876
			2,344,000	605,000		21	11	39.9089	160	0	41.7011
	44	/150	2,348,000	600,000	20.0	21	13	51.0143	159	57	49.1501
			2,352,000	600,000		21	16	01.1053	159	57	49.9961
			2,352,000	605,000		21	16	00.0877	160	0	43.4759
			2,348,000	605,000		21	13	49.9986	160	0	42.5876
	45	/150	2,356,000	600,000	20.0	21	18	11.1958	159	57	50.8440
			2,360,000	600,000		21	20	21.2857	159	57	51.6936
			2,360,000	605,000		21	20	20.2643	160	0	45.2582
			2,356,000	605,000		21	18	10.1763	160	0	44.3661
46	/150	2,348,000	605,000	20.0	21	13	49.9986	160	0	42.5876	
		2,352,000	605,000		21	16	00.0877	160	0	43.4759	
		2,352,000	610,000		21	15	59.0204	160	3	36.9528	

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,348,000	610,000	20.0	21	13	48.9333	160	3	36.0222
	47 /150	2,352,000	605,000		21	16	00.0877	160	0	43.4759
		2,356,000	605,000		21	18	10.1763	160	0	44.3661
		2,356,000	610,000		21	18	09.1070	160	3	37.8853
		2,352,000	610,000	20.0	21	15	59.0204	160	3	36.9528
	48 /150	2,356,000	605,000		21	18	10.1763	160	0	44.3661
		2,360,000	605,000		21	20	20.2643	160	0	45.2582
		2,360,000	610,000		21	20	19.1930	160	3	38.8199
		2,356,000	610,000	20.0	21	18	09.1070	160	3	37.8853
	49 /150	2,352,000	610,000		21	15	59.0204	160	3	36.9528
		2,356,000	610,000		21	18	09.1070	160	3	37.8853
		2,356,000	615,000		21	18	07.9879	160	6	31.4015
		2,352,000	615,000	20.0	21	15	57.9035	160	6	30.4265
	50 /150	2,356,000	610,000		21	18	09.1070	160	3	37.8853
		2,360,000	610,000		21	20	19.1930	160	3	38.8199
		2,360,000	615,000		21	20	18.0719	160	6	32.3785
		2,356,000	615,000	20.0	21	18	07.9879	160	6	31.4015
	51 /150	2,356,000	615,000		21	18	07.9879	160	6	31.4015
		2,360,000	615,000		21	20	18.0719	160	6	32.3785
		2,360,000	620,000		21	20	16.9009	160	9	25.9338
		2,356,000	620,000	20.0	21	18	06.8191	160	9	24.9144
C3	52 /150	2,332,000	415,000		21	5	13.3739	158	10	54.0402
		2,336,000	415,000		21	7	23.4723	158	10	53.3271
		2,336,000	420,000		21	7	24.2852	158	13	46.6486
		2,332,000	420,000	20.0	21	5	14.1853	158	13	47.3197
	53 /150	2,332,000	420,000		21	5	14.1853	158	13	47.3197
		2,336,000	420,000		21	7	24.2852	158	13	46.6486
		2,336,000	425,000		21	7	25.0489	158	16	39.9723
		2,332,000	425,000	20.0	21	5	14.9475	158	16	40.6015
	54 /150	2,336,000	420,000		21	7	24.2852	158	13	46.6486
		2,340,000	420,000		21	9	34.3846	158	13	45.9759

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,340,000	425,000		21	9	35.1496	158	16	39.3417
		2,336,000	425,000	20.0	21	7	25.0489	158	16	39.9723
	55 /150	2,328,000	425,000		21	3	04.8456	158	16	41.2294
		2,332,000	425,000		21	5	14.9475	158	16	40.6015
		2,332,000	430,000		21	5	15.6605	158	19	33.8854
		2,328,000	430,000	20.0	21	3	05.5573	158	19	34.4714
	56 /150	2,332,000	425,000		21	5	14.9475	158	16	40.6015
		2,336,000	425,000		21	7	25.0489	158	16	39.9723
		2,336,000	430,000		21	7	25.7632	158	19	33.2980
		2,332,000	430,000	20.0	21	5	15.6605	158	19	33.8854
	57 /150	2,340,000	425,000		21	9	35.1496	158	16	39.3417
		2,344,000	425,000		21	11	45.2499	158	16	38.7097
		2,344,000	430,000		21	11	45.9669	158	19	32.1197
		2,340,000	430,000	20.0	21	9	35.8653	158	19	32.7095
	58 /150	2,344,000	425,000		21	11	45.2499	158	16	38.7097
		2,348,000	425,000		21	13	55.3495	158	16	38.0765
		2,348,000	430,000		21	13	56.0679	158	19	31.5286
		2,344,000	430,000	20.0	21	11	45.9669	158	19	32.1197
	59 /150	2,328,000	430,000		21	3	05.5573	158	19	34.4714
		2,332,000	430,000		21	5	15.6605	158	19	33.8854
		2,332,000	435,000		21	5	16.3244	158	22	27.1711
		2,328,000	435,000	20.0	21	3	06.2199	158	22	27.7154
	60 /150	2,332,000	430,000		21	5	15.6605	158	19	33.8854
		2,336,000	430,000		21	7	25.7632	158	19	33.2980
		2,336,000	435,000		21	7	26.4283	158	22	26.6258
		2,332,000	435,000	20.0	21	5	16.3244	158	22	27.1711
	61 /150	2,336,000	430,000		21	7	25.7632	158	19	33.2980
		2,340,000	430,000		21	9	35.8653	158	19	32.7095
		2,340,000	435,000		21	9	36.5317	158	22	26.0792
		2,336,000	435,000	20.0	21	7	26.4283	158	22	26.6258
	62 /150	2,340,000	430,000		21	9	35.8653	158	19	32.7095

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,344,000	430,000		21	11	45.9669	158	19	32.1197
		2,344,000	435,000		21	11	46.6345	158	22	25.5315
		2,340,000	435,000	20.0	21	9	36.5317	158	22	26.0792
63	/150	2,328,000	435,000		21	3	06.2199	158	22	27.7154
		2,332,000	435,000		21	5	16.3244	158	22	27.1711
		2,332,000	440,000		21	5	16.9390	158	25	20.4587
		2,328,000	440,000	20.0	21	3	06.8334	158	25	20.9611
64	/150	2,332,000	435,000		21	5	16.3244	158	22	27.1711
		2,336,000	435,000		21	7	26.4283	158	22	26.6258
		2,336,000	440,000		21	7	27.0441	158	25	19.9553
		2,332,000	440,000	20.0	21	5	16.9390	158	25	20.4587
65	/150	2,336,000	435,000		21	7	26.4283	158	22	26.6258
		2,340,000	435,000		21	9	36.5317	158	22	26.0792
		2,340,000	440,000		21	9	37.1486	158	25	19.4508
		2,336,000	440,000	20.0	21	7	27.0441	158	25	19.9553
66	/150	2,324,000	440,000		21	0	56.7272	158	25	21.4624
		2,328,000	440,000		21	3	06.8334	158	25	20.9611
		2,328,000	445,000		21	3	07.3978	158	28	14.2085
		2,324,000	445,000	20.0	21	0	57.2906	158	28	14.6680
67	/150	2,328,000	440,000		21	3	06.8334	158	25	20.9611
		2,332,000	440,000		21	5	16.9390	158	25	20.4587
		2,332,000	445,000		21	5	17.5045	158	28	13.7480
		2,328,000	445,000	20.0	21	3	07.3978	158	28	14.2085
68	/150	2,332,000	440,000		21	5	16.9390	158	25	20.4587
		2,336,000	440,000		21	7	27.0441	158	25	19.9553
		2,336,000	445,000		21	7	27.6106	158	28	13.2865
		2,332,000	445,000	20.0	21	5	17.5045	158	28	13.7480
69	/150	2,336,000	440,000		21	7	27.0441	158	25	19.9553
		2,340,000	440,000		21	9	37.1486	158	25	19.4508
		2,340,000	445,000		21	9	37.7162	158	28	12.8240
		2,336,000	445,000	20.0	21	7	27.6106	158	28	13.2865

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>	
	70	/150	2,324,000	445,000		21	0	57.2906	158	28	14.6680
			2,328,000	445,000		21	3	07.3978	158	28	14.2085
			2,328,000	450,000		21	3	07.9131	158	31	07.4574
			2,324,000	450,000	20.0	21	0	57.8049	158	31	07.8752
	71	/150	2,328,000	445,000		21	3	07.3978	158	28	14.2085
			2,332,000	445,000		21	5	17.5045	158	28	13.7480
			2,332,000	450,000		21	5	18.0208	158	31	07.0388
			2,328,000	450,000	20.0	21	3	07.9131	158	31	07.4574
	72	/150	2,332,000	445,000		21	5	17.5045	158	28	13.7480
			2,336,000	445,000		21	7	27.6106	158	28	13.2865
			2,336,000	450,000		21	7	28.1279	158	31	06.6192
			2,332,000	450,000	20.0	21	5	18.0208	158	31	07.0388
	73	/150	2,336,000	445,000		21	7	27.6106	158	28	13.2865
			2,340,000	445,000		21	9	37.7162	158	28	12.8240
			2,340,000	450,000		21	9	38.2344	158	31	06.1988
			2,336,000	450,000	20.0	21	7	28.1279	158	31	06.6192
	74	/150	2,324,000	450,000		21	0	57.8049	158	31	07.8752
			2,328,000	450,000		21	3	07.9131	158	31	07.4574
			2,328,000	455,000		21	3	08.3794	158	34	00.7077
			2,324,000	455,000	20.0	21	0	58.2703	158	34	01.0837
	75	/150	2,328,000	450,000		21	3	07.9131	158	31	07.4574
			2,332,000	450,000		21	5	18.0208	158	31	07.0388
			2,332,000	455,000		21	5	18.4879	158	34	00.3309
			2,328,000	455,000	20.0	21	3	08.3794	158	34	00.7077
	76	/150	2,332,000	450,000		21	5	18.0208	158	31	07.0388
			2,336,000	450,000		21	7	28.1279	158	31	06.6192
			2,336,000	455,000		21	7	28.5959	158	33	59.9533
			2,332,000	455,000	20.0	21	5	18.4879	158	34	00.3309
C4	77	/150	2,320,000	315,000		20	58	16.6618	157	13	13.7628
			2,324,000	315,000		21	0	26.7121	157	13	12.2215
			2,324,000	320,000		21	0	28.5014	157	16	05.3441

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,320,000	320,000	20.0	20	58	18.4476	157	16	06.8438
	78 /150	2,324,000	315,000		21	0	26.7121	157	13	12.2215
		2,328,000	315,000		21	2	36.7619	157	13	10.6770
		2,328,000	320,000		21	2	38.5545	157	16	03.8412
		2,324,000	320,000	20.0	21	0	28.5014	157	16	05.3441
	79 /150	2,320,000	320,000		20	58	18.4476	157	16	06.8438
		2,324,000	320,000		21	0	28.5014	157	16	05.3441
		2,324,000	325,000		21	0	30.2415	157	18	58.4717
		2,320,000	325,000	20.0	20	58	20.1845	157	18	59.9297
	80 /150	2,324,000	320,000		21	0	28.5014	157	16	05.3441
		2,328,000	320,000		21	2	38.5545	157	16	03.8412
		2,328,000	325,000		21	2	40.2979	157	18	57.0105
		2,324,000	325,000	20.0	21	0	30.2415	157	18	58.4717
	81 /150	2,316,000	325,000		20	56	10.1269	157	19	01.3847
		2,320,000	325,000		20	58	20.1845	157	18	59.9297
		2,320,000	330,000		20	58	21.8724	157	21	53.0205
		2,316,000	330,000	20.0	20	56	11.8117	157	21	54.4340
	82 /150	2,320,000	325,000		20	58	20.1845	157	18	59.9297
		2,324,000	325,000		21	0	30.2415	157	18	58.4717
		2,324,000	330,000		21	0	31.9326	157	21	51.6041
		2,320,000	330,000	20.0	20	58	21.8724	157	21	53.0205
	83 /150	2,316,000	330,000		20	56	11.8117	157	21	54.4340
		2,320,000	330,000		20	58	21.8724	157	21	53.0205
		2,320,000	335,000		20	58	23.5113	157	24	46.1160
		2,316,000	335,000	20.0	20	56	13.4475	157	24	47.4880
C5	84 /150	2,156,000	370,000		19	29	39.7617	157	45	40.3751
		2,160,000	370,000		19	31	49.8665	157	45	39.3840
		2,160,000	375,000		19	31	51.0207	157	48	30.9179
		2,156,000	375,000	20.0	19	29	40.9136	157	48	31.8710
	85 /150	2,156,000	375,000		19	29	40.9136	157	48	31.8710
		2,160,000	375,000		19	31	51.0207	157	48	30.9179

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,160,000	380,000		19	31	52.1296	157	51	22.4552
		2,156,000	380,000	20.0	19	29	42.0203	157	51	23.3702
	86 /150	2,160,000	375,000		19	31	51.0207	157	48	30.9179
		2,164,000	375,000		19	34	01.1273	157	48	29.9628
		2,164,000	380,000		19	34	02.2384	157	51	21.5382
		2,160,000	380,000	20.0	19	31	52.1296	157	51	22.4552
	87 /150	2,164,000	375,000		19	34	01.1273	157	48	29.9628
		2,168,000	375,000		19	36	11.2333	157	48	29.0055
		2,168,000	380,000		19	36	12.3466	157	51	20.6192
		2,164,000	380,000	20.0	19	34	02.2384	157	51	21.5382
	88 /150	2,168,000	375,000		19	36	11.2333	157	48	29.0055
		2,172,000	375,000		19	38	21.3388	157	48	28.0460
		2,172,000	380,000		19	38	22.4544	157	51	19.6981
		2,168,000	380,000	20.0	19	36	12.3466	157	51	20.6192
	89 /150	2,156,000	380,000		19	29	42.0203	157	51	23.3702
		2,160,000	380,000		19	31	52.1296	157	51	22.4552
		2,160,000	385,000		19	31	53.1932	157	54	13.9957
		2,156,000	385,000	20.0	19	29	43.0818	157	54	14.8726
	90 /150	2,160,000	380,000		19	31	52.1296	157	51	22.4552
		2,164,000	380,000		19	34	02.2384	157	51	21.5382
		2,164,000	385,000		19	34	03.3041	157	54	13.1169
		2,160,000	385,000	20.0	19	31	53.1932	157	54	13.9957
	91 /150	2,164,000	380,000		19	34	02.2384	157	51	21.5382
		2,168,000	380,000		19	36	12.3466	157	51	20.6192
		2,168,000	385,000		19	36	13.4145	157	54	12.2361
		2,164,000	385,000	20.0	19	34	03.3041	157	54	13.1169
	92 /150	2,168,000	380,000		19	36	12.3466	157	51	20.6192
		2,172,000	380,000		19	38	22.4544	157	51	19.6981
		2,172,000	385,000		19	38	23.5243	157	54	11.3534
		2,168,000	385,000	20.0	19	36	13.4145	157	54	12.2361
	93 /150	2,156,000	385,000		19	29	43.0818	157	54	14.8726

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,160,000	385,000		19	31	53.1932	157	54	13.9957
		2,160,000	390,000		19	31	54.2115	157	57	05.5392
		2,156,000	390,000	20.0	19	29	44.0980	157	57	06.3780
94	/150	2,160,000	385,000		19	31	53.1932	157	54	13.9957
		2,164,000	385,000		19	34	03.3041	157	54	13.1169
		2,164,000	390,000		19	34	04.3244	157	57	04.6986
		2,160,000	390,000	20.0	19	31	54.2115	157	57	05.5392
95	/150	2,164,000	385,000		19	34	03.3041	157	54	13.1169
		2,168,000	385,000		19	36	13.4145	157	54	12.2361
		2,168,000	390,000		19	36	14.4369	157	57	03.8561
		2,164,000	390,000	20.0	19	34	04.3244	157	57	04.6986
96	/150	2,152,000	390,000		19	27	33.9840	157	57	07.2149
		2,156,000	390,000		19	29	44.0980	157	57	06.3780
		2,156,000	395,000		19	29	45.0691	157	59	57.8863
		2,152,000	395,000	20.0	19	27	34.9532	157	59	58.6852
97	/150	2,156,000	390,000		19	29	44.0980	157	57	06.3780
		2,160,000	390,000		19	31	54.2115	157	57	05.5392
		2,160,000	395,000		19	31	55.1845	157	59	57.0857
		2,156,000	395,000	20.0	19	29	45.0691	157	59	57.8863
98	/150	2,160,000	390,000		19	31	54.2115	157	57	05.5392
		2,164,000	390,000		19	34	04.3244	157	57	04.6986
		2,164,000	395,000		19	34	05.2994	157	59	56.2832
		2,160,000	395,000	20.0	19	31	55.1845	157	59	57.0857
99	/150	2,156,000	395,000		19	29	45.0691	157	59	57.8863
		2,160,000	395,000		19	31	55.1845	157	59	57.0857
		2,160,000	400,000		19	31	56.1123	158	2	48.6349
		2,156,000	400,000	20.0	19	29	45.9950	158	2	49.3975
100	/150	2,160,000	395,000		19	31	55.1845	157	59	57.0857
		2,164,000	395,000		19	34	05.2994	157	59	56.2832
		2,164,000	400,000		19	34	06.2290	158	2	47.8707
		2,160,000	400,000	20.0	19	31	56.1123	158	2	48.6349

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>	
C6	101	/150	2,172,000	610,000		19	38	24.5487	160	2	56.9883
			2,176,000	610,000		19	40	34.6601	160	2	57.8345
			2,176,000	615,000		19	40	33.6336	160	5	49.5313
			2,172,000	615,000	20.0	19	38	23.5243	160	5	48.6466
	102	/150	2,172,000	615,000		19	38	23.5243	160	5	48.6466
			2,176,000	615,000		19	40	33.6336	160	5	49.5313
			2,176,000	620,000		19	40	32.5615	160	8	41.2250
			2,172,000	620,000	20.0	19	38	22.4544	160	8	40.3019
	103	/150	2,176,000	615,000		19	40	33.6336	160	5	49.5313
			2,180,000	615,000		19	42	43.7424	160	5	50.4179
			2,180,000	620,000		19	42	42.6682	160	8	42.1502
			2,176,000	620,000	20.0	19	40	32.5615	160	8	41.2250
	104	/150	2,180,000	615,000		19	42	43.7424	160	5	50.4179
			2,184,000	615,000		19	44	53.8507	160	5	51.3065
			2,184,000	620,000		19	44	52.7743	160	8	43.0774
			2,180,000	620,000	20.0	19	42	42.6682	160	8	42.1502
	105	/150	2,172,000	620,000		19	38	22.4544	160	8	40.3019
			2,176,000	620,000		19	40	32.5615	160	8	41.2250
			2,176,000	625,000		19	40	31.4438	160	11	32.9155
			2,172,000	625,000	20.0	19	38	21.3388	160	11	31.9540
	106	/150	2,176,000	620,000		19	40	32.5615	160	8	41.2250
			2,180,000	620,000		19	42	42.6682	160	8	42.1502
			2,180,000	625,000		19	42	41.5482	160	11	33.8792
			2,176,000	625,000	20.0	19	40	31.4438	160	11	32.9155
	107	/150	2,180,000	620,000		19	42	42.6682	160	8	42.1502
			2,184,000	620,000		19	44	52.7743	160	8	43.0774
			2,184,000	625,000		19	44	51.6521	160	11	34.8450
			2,180,000	625,000	20.0	19	42	41.5482	160	11	33.8792
108	/150	2,184,000	625,000		19	44	51.6521	160	11	34.8450	
		2,188,000	625,000		19	47	01.7555	160	11	35.8130	
		2,188,000	630,000		19	47	00.5851	160	14	27.6160	

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,184,000	630,000	20.0	19	44	50.4841	160	14	26.6093
	109 /150	2,184,000	630,000		19	44	50.4841	160	14	26.6093
		2,188,000	630,000		19	47	00.5851	160	14	27.6160
		2,188,000	635,000		19	46	59.3689	160	17	19.4155
		2,184,000	635,000	20.0	19	44	49.2702	160	17	18.3702
C7	110 /150	2,156,000	640,000		19	29	37.3224	160	20	02.6062
		2,160,000	640,000		19	31	47.4223	160	20	03.6735
		2,160,000	645,000		19	31	46.1322	160	22	55.1968
		2,156,000	645,000	20.0	19	29	36.0349	160	22	54.0914
	111 /150	2,160,000	640,000		19	31	47.4223	160	20	03.6735
		2,164,000	640,000		19	33	57.5217	160	20	04.7432
		2,164,000	645,000		19	33	56.2290	160	22	56.3046
		2,160,000	645,000	20.0	19	31	46.1322	160	22	55.1968
	112 /150	2,156,000	645,000		19	29	36.0349	160	22	54.0914
		2,160,000	645,000		19	31	46.1322	160	22	55.1968
		2,160,000	650,000		19	31	44.7968	160	25	46.7162
		2,156,000	650,000	20.0	19	29	34.7021	160	25	45.5727
	113 /150	2,160,000	645,000		19	31	46.1322	160	22	55.1968
		2,164,000	645,000		19	33	56.2290	160	22	56.3046
		2,164,000	650,000		19	33	54.8910	160	25	47.8622
		2,160,000	650,000	20.0	19	31	44.7968	160	25	46.7162
	114 /150	2,156,000	645,000		19	29	36.0349	160	22	54.0914
		2,160,000	645,000		19	31	46.1322	160	22	55.1968
		2,160,000	655,000		19	31	43.4161	160	28	38.2316
		2,156,000	655,000	20.0	19	29	33.3242	160	28	37.0500
C8	115 /150	2,636,000	520,000		23	50	06.8848	159	11	46.9894
		2,640,000	520,000		23	52	16.9515	159	11	47.1855
		2,640,000	525,000		23	52	16.6977	159	14	43.9807
		2,636,000	525,000	20.0	23	50	06.6314	159	14	43.7357
	116 /150	2,648,000	520,000		23	56	37.0830	159	11	47.5787
		2,652,000	520,000		23	58	47.1478	159	11	47.7759

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,652,000	525,000		23	58	46.8927	159	14	44.7188
		2,648,000	525,000	20.0	23	56	36.8283	159	14	44.4723
	117 /150	2,620,000	525,000		23	41	26.3604	159	14	42.7603
		2,624,000	525,000		23	43	36.4291	159	14	43.0034
		2,624,000	530,000		23	43	36.1210	159	17	39.6024
		2,620,000	530,000	20.0	23	41	26.0529	159	17	39.3107
	118 /150	2,624,000	525,000		23	43	36.4291	159	14	43.0034
		2,628,000	525,000		23	45	46.4971	159	14	43.2470
		2,628,000	530,000		23	45	46.1885	159	17	39.8947
		2,624,000	530,000	20.0	23	43	36.1210	159	17	39.6024
	119 /150	2,628,000	525,000		23	45	46.4971	159	14	43.2470
		2,632,000	525,000		23	47	56.5646	159	14	43.4911
		2,632,000	530,000		23	47	56.2555	159	17	40.1876
		2,628,000	530,000	20.0	23	45	46.1885	159	17	39.8947
	120 /150	2,632,000	525,000		23	47	56.5646	159	14	43.4911
		2,636,000	525,000		23	50	06.6314	159	14	43.7357
		2,636,000	530,000		23	50	06.3218	159	17	40.4811
		2,632,000	530,000	20.0	23	47	56.2555	159	17	40.1876
	121 /150	2,636,000	525,000		23	50	06.6314	159	14	43.7357
		2,640,000	525,000		23	52	16.6977	159	14	43.9807
		2,640,000	530,000		23	52	16.3875	159	17	40.7752
		2,636,000	530,000	20.0	23	50	06.3218	159	17	40.4811
	122 /150	2,640,000	525,000		23	52	16.6977	159	14	43.9807
		2,644,000	525,000		23	54	26.7633	159	14	44.2263
		2,644,000	530,000		23	54	26.4526	159	17	41.0698
		2,640,000	530,000	20.0	23	52	16.3875	159	17	40.7752
	123 /150	2,644,000	525,000		23	54	26.7633	159	14	44.2263
		2,648,000	525,000		23	56	36.8283	159	14	44.4723
		2,648,000	530,000		23	56	36.5171	159	17	41.3651
		2,644,000	530,000	20.0	23	54	26.4526	159	17	41.0698
	124 /150	2,648,000	525,000		23	56	36.8283	159	14	44.4723

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,652,000	525,000		23	58	46.8927	159	14	44.7188
		2,652,000	530,000		23	58	46.5809	159	17	41.6609
		2,648,000	530,000	20.0	23	56	36.5171	159	17	41.3651
125	/150	2,608,000	530,000		23	34	55.8448	159	17	38.4389
		2,612,000	530,000		23	37	05.9147	159	17	38.7289
		2,612,000	535,000		23	37	05.5525	159	20	35.1815
		2,608,000	535,000	20.0	23	34	55.4832	159	20	34.8431
126	/150	2,612,000	530,000		23	37	05.9147	159	17	38.7289
		2,616,000	530,000		23	39	15.9841	159	17	39.0195
		2,616,000	535,000		23	39	15.6213	159	20	35.5205
		2,612,000	535,000	20.0	23	37	05.5525	159	20	35.1815
127	/150	2,616,000	530,000		23	39	15.9841	159	17	39.0195
		2,620,000	530,000		23	41	26.0529	159	17	39.3107
		2,620,000	535,000		23	41	25.6894	159	20	35.8602
		2,616,000	535,000	20.0	23	39	15.6213	159	20	35.5205
128	/150	2,620,000	530,000		23	41	26.0529	159	17	39.3107
		2,624,000	530,000		23	43	36.1210	159	17	39.6024
		2,624,000	535,000		23	43	35.7569	159	20	36.2005
		2,620,000	535,000	20.0	23	41	25.6894	159	20	35.8602
129	/150	2,624,000	530,000		23	43	36.1210	159	17	39.6024
		2,628,000	530,000		23	45	46.1885	159	17	39.8947
		2,628,000	535,000		23	45	45.8238	159	20	36.5416
		2,624,000	535,000	20.0	23	43	35.7569	159	20	36.2005
130	/150	2,628,000	530,000		23	45	46.1885	159	17	39.8947
		2,632,000	530,000		23	47	56.2555	159	17	40.1876
		2,632,000	535,000		23	47	55.8901	159	20	36.8833
		2,628,000	535,000	20.0	23	45	45.8238	159	20	36.5416
131	/150	2,632,000	530,000		23	47	56.2555	159	17	40.1876
		2,636,000	530,000		23	50	06.3218	159	17	40.4811
		2,636,000	535,000		23	50	05.9558	159	20	37.2257
		2,632,000	535,000	20.0	23	47	55.8901	159	20	36.8833

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>	
	132	/150	2,636,000	530,000		23	50	06.3218	159	17	40.4811
			2,640,000	530,000		23	52	16.3875	159	17	40.7752
			2,640,000	535,000		23	52	16.0209	159	20	37.5687
			2,636,000	535,000	20.0	23	50	05.9558	159	20	37.2257
	133	/150	2,640,000	530,000		23	52	16.3875	159	17	40.7752
			2,644,000	530,000		23	54	26.4526	159	17	41.0698
			2,644,000	535,000		23	54	26.0854	159	20	37.9125
			2,640,000	535,000	20.0	23	52	16.0209	159	20	37.5687
	134	/150	2,604,000	535,000		23	32	45.4132	159	20	34.5055
			2,608,000	535,000		23	34	55.4832	159	20	34.8431
			2,608,000	540,000		23	34	55.0659	159	23	31.2463
			2,604,000	540,000	20.0	23	32	44.9967	159	23	30.8604
	135	/150	2,608,000	535,000		23	34	55.4832	159	20	34.8431
			2,612,000	535,000		23	37	05.5525	159	20	35.1815
			2,612,000	540,000		23	37	05.1345	159	23	31.6329
			2,608,000	540,000	20.0	23	34	55.0659	159	23	31.2463
	136	/150	2,612,000	535,000		23	37	05.5525	159	20	35.1815
			2,616,000	535,000		23	39	15.6213	159	20	35.5205
			2,616,000	540,000		23	39	15.2026	159	23	32.0204
			2,612,000	540,000	20.0	23	37	05.1345	159	23	31.6329
	137	/150	2,616,000	535,000		23	39	15.6213	159	20	35.5205
			2,620,000	535,000		23	41	25.6894	159	20	35.8602
			2,620,000	540,000		23	41	25.2700	159	23	32.4086
			2,616,000	540,000	20.0	23	39	15.2026	159	23	32.0204
	138	/150	2,620,000	535,000		23	41	25.6894	159	20	35.8602
			2,624,000	535,000		23	43	35.7569	159	20	36.2005
			2,624,000	540,000		23	43	35.3368	159	23	32.7976
			2,620,000	540,000	20.0	23	41	25.2700	159	23	32.4086
	139	/150	2,624,000	535,000		23	43	35.7569	159	20	36.2005
			2,628,000	535,000		23	45	45.8238	159	20	36.5416
			2,628,000	540,000		23	45	45.4030	159	23	33.1873

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,624,000	540,000	20.0	23	43	35.3368	159	23	32.7976
	140 /150	2,628,000	535,000		23	45	45.8238	159	20	36.5416
		2,632,000	535,000		23	47	55.8901	159	20	36.8833
		2,632,000	540,000		23	47	55.4686	159	23	33.5779
		2,628,000	540,000	20.0	23	45	45.4030	159	23	33.1873
	141 /150	2,632,000	535,000		23	47	55.8901	159	20	36.8833
		2,636,000	535,000		23	50	05.9558	159	20	37.2257
		2,636,000	540,000		23	50	05.5336	159	23	33.9692
		2,632,000	540,000	20.0	23	47	55.4686	159	23	33.5779
	142 /150	2,636,000	535,000		23	50	05.9558	159	20	37.2257
		2,640,000	535,000		23	52	16.0209	159	20	37.5687
		2,640,000	540,000		23	52	15.5979	159	23	34.3612
		2,636,000	540,000	20.0	23	50	05.5336	159	23	33.9692
	143 /150	2,616,000	540,000		23	39	15.2026	159	23	32.0204
		2,620,000	540,000		23	41	25.2700	159	23	32.4086
		2,620,000	545,000		23	41	24.7947	159	26	28.9558
		2,616,000	545,000	20.0	23	39	14.7281	159	26	28.5191
	144 /150	2,620,000	540,000		23	41	25.2700	159	23	32.4086
		2,624,000	540,000		23	43	35.3368	159	23	32.7976
		2,624,000	545,000		23	43	34.8607	159	26	29.3934
		2,620,000	545,000	20.0	23	41	24.7947	159	26	28.9558
	145 /150	2,624,000	540,000		23	43	35.3368	159	23	32.7976
		2,628,000	540,000		23	45	45.4030	159	23	33.1873
		2,628,000	545,000		23	45	44.9261	159	26	29.8319
		2,624,000	545,000	20.0	23	43	34.8607	159	26	29.3934
	146 /150	2,628,000	540,000		23	45	45.4030	159	23	33.1873
		2,632,000	540,000		23	47	55.4686	159	23	33.5779
		2,632,000	545,000		23	47	54.9908	159	26	30.2712
		2,628,000	545,000	20.0	23	45	44.9261	159	26	29.8319
	147 /150	2,632,000	540,000		23	47	55.4686	159	23	33.5779
		2,636,000	540,000		23	50	05.5336	159	23	33.9692

<i>Cluster</i>	<i>Block No.</i>	<i>Northing UTM Zone57N</i>	<i>Easting UTM Zone57N</i>	<i>Area (km²)</i>	<i>Lat. N degrees</i>	<i>Lat. N minutes</i>	<i>Lat. N seconds</i>	<i>Long. E degrees</i>	<i>Long. E minutes</i>	<i>Long. E seconds</i>
		2,636,000	545,000		23	50	05.0550	159	26	30.7114
		2,632,000	545,000	20.0	23	47	54.9908	159	26	30.2712
	148 /150	2,620,000	545,000		23	41	24.7947	159	26	28.9558
		2,624,000	545,000		23	43	34.8607	159	26	29.3934
		2,624,000	550,000		23	43	34.3285	159	29	25.9879
		2,620,000	550,000	20.0	23	41	24.2634	159	29	25.5017
	149 /150	2,624,000	545,000		23	43	34.8607	159	26	29.3934
		2,628,000	545,000		23	45	44.9261	159	26	29.8319
		2,628,000	550,000		23	45	44.3930	159	29	26.4751
		2,624,000	550,000	20.0	23	43	34.3285	159	29	25.9879
	150 /150	2,624,000	550,000		23	43	34.3285	159	29	25.9879
		2,628,000	550,000		23	45	44.3930	159	29	26.4751
		2,628,000	555,000		23	45	43.8038	159	32	23.1168
		2,624,000	555,000	20.0	23	43	33.7403	159	32	22.5809

Annex II

Map of the general location of the area under application

