

CONCESSION PROPOSAL FOR THE «Brinevskoe» gypsum deposit, Petrikov district, Gomel region»

NAME AND THE MAIN CHARACTERISTICS OF THE OBJECT OF THE CONCESSION.

Concession object "Brinevskoye" gypsum deposit, Petrikov district, Gomel region" (further - the deposit) is located in Petrikov district of Gomel region. Brinevskoye deposit is on the balance sheet of Republican Unitary Enterprise "Research and Production Centre for Geology". The territory of occurrence of mineral resources is directly adjacent to the village of Brinev from the northwest. The railway line Luninets - Kalinkovichi with the neighboring railway stations Starushki (7 km), Kopsevichi (10 km) runs 5 km north of the deposit. Kobrin - Kalinkovichi highway runs 8 km to the north of the deposit and navigable Pripyat river is 8 km to the south.

The straight line distance from the village of Brinev to Petrikov gas distribution station of the public corporation "Beltransgas" is 21.5 km, and 22.5 km to the gas distribution station of Zhitkovichi public corporation "Beltransgas".

Minerals are represented by gypsum and gypsum-anhydrite.

Preliminary (Western section) and detailed (Eastern section) exploration was carried out at the deposit.

According to the preliminary exploration results, the reserves of the Western area of Brinev-deposit are approved in the amount of 119 525 thous. tons by C₁+C₂ categories including 108 242 thous. tons by C₁ category.

According to the results of the detailed exploration of the eastern part of Brinevskoye deposit, the explored reserves by B and C₁ categories amounted to 125 618 thous. tons, including 12 047 thous. tons by B category.

Calculated gypsum and gypsum-anhydrite reserves on the territory of the eastern part of the deposit by C₂ category are 85 011 thous. tons.

According to the results of its exploration the eastern part of the field is ready for industrial development.

Four (I, II, III, IV) gypsum-bearing horizons, uniting from 1 to 10 layers of gypsum-containing rocks with thickness from 0.6 m to 29.5 m are distinguished in the section of the exposed gypsum-bearing strata (from top to bottom), in addition to gypsum layers, there are layers of gypsum-anhydrite rock with capacity from 1.5 m to 30.5 m. Horizons III and IV are of commercial interest. Gypsum-bearing horizons I and II have no industrial significance due to their insignificant thickness, unstable quality and spreading area.

Gypsum horizon III, the most spread in area and sustained in thickness, is penetrated by all the workings in the interval from 149.3 m to 329.1 m. As a

rule the horizon is mostly represented by one gypsum layer with the thickness from 4.0 m to 15.1 m. In some areas, except for the southern one, the gypsum horizon is split into 2 or 3 layers separated by interlayers of non-sulfate rocks with the thickness from 0.5 m to 21.0 m.

Horizon IV, the lowest, gypsum-bearing horizon is the thickest of all in the gypsum-bearing strata. It is opened at the depth of 179.3 m in the central part and up to 348.9 m in the north-east and east directions. Its thickness varies from 9.8 m to 53.8 m. According to the data of the detailed geological exploration work within horizon IV, according to the position in the section and lithological rock varieties, 2 bundles (subhorizonts) are distinguished-upper IVa and lower IVb, which in its turn is divided into 3 layers – b-1, b-2 and b-3, which are of commercial interest.

The size and shape of geological bodies of gypsum and gypsum-anhydrite rocks composing the eastern part of Brinevskoye field vary from the bottom to the top of the layer. Gypsum-bearing III and IV horizons lying in the base of the gypsum-bearing strata are formation bodies, 3.3 km x 2.7 km in size, within the boundaries of the detailed explored part of the field, except for horizon IVb-3, which has the area of 1.95 km x 1.6 km.

Gypsum stone can be used to produce gypsum a stringent additives for cement production and medical gypsum.

The hydro geological conditions of the eastern section of the deposit, which determine its development are, on the whole, determined as difficult, requiring continuous mine drainage. Operation of a mining enterprise will be possible only in case of full drainage of extracted rocks. The average weighted of the filtration coefficient of the drained Paleozoic strata is 0.023m/day; piezoconductivity value is $0.15 \times 10^3 \text{ m}^2/\text{day}$.

According to the feasibility of the technical service of the development of the field the most economically feasible option is the chamber system for the development of gypsum-anhydrite stone with preservation of the integrity of the overlying undetermined strata for the whole period of the Brinevskoye deposit operation. Mining of Brinevskoye deposit is possible only by the underground method.

The recommended annual production volume based on the results of detailed exploration is 500 thousand tons.

During the construction and operation of a mining enterprise it is mandatory to comply with the legislation of the Republic of Belarus, including environmental protection and rational use of natural resources, to conduct an environment impact assessment of operations of the objects of activity, including the transboundary context, to take measures to minimize breaking the hydrological regime, to conduct industrial environmental control, local environmental monitoring and compensation for the damage made to the environment during the construction and operation of the objects.

After the completion of the development of the deposit it is necessary to take a set of measures to eliminate mining operations in accordance with the legislation.

THE PURPOSE OF GRANTING THE OBJECT IN THE CONCESSION

Concession object – the subsoil area is transferred to concession for the purpose of conducting geological exploration of the subsoil and mining of mineral resources.

CONCESSION BODY

Gomel Regional Executive Committee, as a concessionary body, organizes, determines conditions and conducts a tender for the conclusion of a concession agreement.

PROCEDURE FOR DETERMINING THE CONCESSIONAIRE

The concessionaire will be determined based on the results of the investor selection tender, to enter into a concession agreement for the object of concession “Brinevskoye” gypsum deposit, Petrikov district, Gomel region”, which is open. Persons recognized as investors in accordance with the Law of the Republic of Belarus of July 12, 2013 "On Investments", except for state legal entities, and meeting requirements in accordance with Article 17 of the Law of the Republic of Belarus of July 12, 2013 "On Concessions" are entitled to participate in the tender.

The starting amount of the one-time payment is calculated on the Regulation on the procedure of calculation of the starting amount of the one-time payment for the right to use subsoil resources, approved by the Council of Ministers of the Republic of Belarus on 20 December, 2011 No 1704 by the following formula:

$$P = (C \times 0.1\%) + (C_p \times 0.05\%), \text{ where:}$$

P - starting amount of the one-time payment;

C – the cost of mineral reserves of categories A, B, C₁;

C_p – the cost of C₂ category mineral reserves

The cost of mineral reserves is determined based on the average price of USD 19.0 per ton of gypsum and anhydrite reserves (based on the data of the National Statistical Committee of the Republic of Belarus according to the results of January-February 2016).

According to the preliminary exploration results, the reserves of mineral resources of the western area of Brinevskoye deposit are 119,525 thous. tons by categories C₁+C₂, including 108,242 thous. tons by category C₁.

According to the results of the detailed exploration of the eastern part of Brinevskoye field, the explored reserves in categories B and C₁ amounted to 125 618 thous. tons, including 12 047 thous. tons by category B.

Estimated gypsum and gypsum-anhydrite reserves in the eastern part of the field are 85 011 thous. tons by C₂ category.

Calculation of the cost of the reserves:

$$C = (125\ 618\ 000 + 108\ 242\ 000) \times 19.0 = \$4443340\ 000.$$

$$C_p = (85\ 011\ 000 + 11\ 283\ 000) \times 19.0 = \$1829586\ 000.$$

Calculation of the starting payment:

$$P = (4443340000 \times 0.1\%) + (1829586000 \times 0.05\%) = 4443340 + 914793 = \$5358133$$

Thus, the starting amount of a one-time payment for the mineral rights is 5358133 USD (five million three hundred fifty-eight thousand one hundred thirty-three) dollars. The cost is calculated at the exchange rate of the National Bank of the Republic of Belarus on the date of the payment.

B TYPE OF CONCESSION AGREEMENT TO BE CONCLUDED

Type of concession agreement - full concession agreement (according to the List of objects proposed for concession transfer (as amended by the Decree of the President of the Republic of Belarus No. 494 of 16 October 2014).

BASIC TECHNICAL CONDITIONS FOR THE USE OF THE PROPERTY THAT IS THE OBJECT OF THE CONCESSION

A concessionaire will be granted a subsoil area for:

- geological study of the subsurface resources for the period of twenty-seven months from the date of the conclusion of the concession agreement;
- mineral extraction - for twenty years from the date of the conclusion of the concession agreement.

The main conditions for the use of the subsurface area during the geological study (conducting detailed exploration) include:

registration of the geological allotment, development, alignment and approval in accordance with the established procedure of the project for detailed exploration of the field within six months from the date of the concession agreement;

to start detailed exploration no later than one month from the date of the approval of the project for the detailed exploration of the field;

calculation of mineral reserves by industrial categories and submission of geological information on the results of the detailed exploration for the state expertise to the Republican Commission on Mineral Reserves not later than twenty-four months from the date of conclusion of the concession agreement.

The main conditions for the use of the subsurface area for the extraction of a mineral resource are:

registration in accordance with the established procedure of mining allotment, allotment of the land plot(s) and application for state registration of creation of a land plot(s) and occurrence of rights, restrictions (encumbrances) of rights to the land plot(s) within six months from the date of conclusion of the concession agreement;

development, coordination and approval in accordance with the established procedure of projects for the building of a mining enterprise and an enterprise for the production of powder gypsum binders, within two years from the date of the concession agreement;

construction of a mining enterprise for the development of the deposit by a clothed method (mine) with a capacity of not less than 500 thousand tons of gypsum and anhydrite per year, completion of the construction within six years from the date of the concession agreement;

building of an enterprise for the production of gypsum powder binders, completion of the construction within six years from the date of the concession agreement;

mining enterprise reaches its design capacity within five years from the start of the field operation;

construction of an enterprise for the production of building materials based on gypsum and anhydrite (additional condition is determined in the concession agreement by the agreement of the parties).

CONCESSIONAIRE OPERATING CONDITIONS

The concessionaire has the right:

the right to own and use the property which is the object of the concession, or the right to carry out a type of activity in accordance with the conditions stipulated in the concession agreement;

the right to use the benefits and preferences provided in accordance with the legislation;

the right to execute the concession agreement by own efforts and/or involving other persons. In this case, the concessionaire is responsible for the actions of other persons as for his own;

the right to receive land plots in accordance with the legislation on the protection and use of land required for the implementation of the concession agreement;

ownership of the products produced;

the right to the profit (income) received;

the right to export from the Republic of Belarus its own products, as a result of the activities in the implementation of the concession agreement, and the profit (income) received.

Privileges and preferences are granted to the concessionaire in accordance with the legislation when carrying out investment activities in medium, small-sized urban settlements and rural areas.

Commercial organizations registered since 1 July 2012, located in medium and small towns and rural areas and engaged in manufacturing activities and services provision in this area for 7 calendar years from the date of registration are exempt from:

- profit tax received from sale of goods (works, services) of their own production;

- payment of the state fee for obtaining of a special permit, its adjustment and (or) prolongation;

- payment of other taxes and duties (including VAT, excise tax, stamp and off-shore fees, state duty, patent duty, customs duties and fees, land tax, environmental tax and a number of other taxes);

- compulsory sale of foreign currency received from the sale of goods (provision of works, services) of his own production, including property rental as well as funds received from legal entities and individuals who are not residents.

The concessionaire may exercise other rights in accordance with the law.

Responsibilities of the concessionaire:

- to use the property, which is the object of the concession or perform the type of activity, which is the object of the concession for the purposes and in accordance with the procedure, established by the concession agreement;

- to comply with the law;

- provide funding for activities for the implementation of the concession agreement;

- bear costs connected with the maintenance of the concession object;

- at the end of the term of the concession agreement, the concession object must be transferred to the concedent in a proper condition in accordance with the conditions of concession agreement.

The concessionaire doesn't have the right to transfer the object of the concession to a sub concession, transfer his rights and obligations under the concession agreement to another person, grant the object of the concession for rent (leasing), free use (loan), pledge, as well as pledge his rights under the concession agreement, make them as a contribution to the start-up capital of a legal entity or encumber them with the rights of third parties in any other ways.

The concessionaire is liable for non-fulfillment and (or) improper fulfillment of obligations under the concession agreement in cases or in

accordance with the procedure established by the legislation of the Republic of Belarus, as well as the concession agreement.

The concession authority monitors and controls the implementation of the concession agreement, including the right to require periodic reporting on the fulfillment of the conditions of the concession agreement from the concessionaire, as well as require other information relating to the implementation of the concession agreement.

Technical and economic indicators for chamber (underground) mining option

№	Name of indicators	Unit	Chamber (underground) mining version
n/a		measurement	Eastern section (technical operation of the object temporary)*
1	2	3	5
1.	Explored reserves of gypsum based on the conditions of the technical operation of the object (I stage of mining) by B+C\+C2	thousand tons	210 628
2.	Industrial reserves	-"	125 618
	including gypsum stone	-"	99 235
	gypsum anhydrite stone	-"	26 383
3	Exploration area	sq km	U2
4.	Annual production	thousand tons	500,0
5.	General mine losses	%	20,9
6.	Operating losses	%	81,4
7.	Dilution	%	-
8.	Recoverable reserves	thousand tons	18 457,6
9.	Average gypsum content in recoverable reserves,%		83,17
10.	Annual output of marketable products	thousand tons	500,0
11.	Inventory holding period	years	18,9
12	Investments in industrial construction	million rubles	854 368,66
	including:		
	underground complex	million rubles	274 970
	surface complex	million rubles	576 593
13.	Operating capital	million rubles	1 470,77
14.	Total investment costs	million rubles	855 839
15.	Specific capital investment in the mine per 1 ton of annual mineral production	thousand rubles	34 203
16.	Annual operating costs	million rubles	77 218,38
17.	Self-cost of extraction of 1 ton of minerals	thousand rubles	154 332
18.	Self-cost of a unit of commercial products	thousand rubles	177 602
19.	Unit price of commercial products (selling price excluding VAT)	thousand rubles	177 602
20.	Cost of commercial products		-
	annual production	million rubles	88 801, 15
	over the entire development period	million rubles	4 440 057,5
21.	Balance sheet profit		
	annual	million rubles	11 582 759,3
	over the entire development period	million rubles	579 137 965
22.	Net discounted income (discount rate 15.2%)	million rubles	439 129 403
23.	Profitability index		6,65
24.	Internal rate of return	%	15,2
25.	Payback period		

	simple	years	7,75
	dynamic	years	26
26.	Profitability		
	products	%	15,0
	sales by balance sheet profit	%	13,0