

The Achievement of the Mining Cadastre in Romania-Baia Mare Mining Area and Cadastre 2014 Vision

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SUMMARY:

Baia Mare mining area is located in the north-west of the Romanian country, legally and administratively belongs to all of Maramures county. Baia Mare region was know in ancient times to the rich gold-silver deposits hidden in the basement of the mountains surrounding depression Baia Mare, which led the early development of mining in the area. In connection with restructuring of the mining industry in Romanian country a number of properties in the heritage CN REMIN SA Baia Mare remained available or can be made available for use for other purposes to achieve the benefits of favorable effects in terms of fair and efficient use of real estate in equipment. This paper highlights the need, importance and stages of the mining cadastre in Baia Mare mining area as a first but important step for efficient use of real property are held and environmental protection.

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1. INTRODUCTION

Baia Mare mining area is located in the north-west of the country legally and administratively belongs to all of Maramures county. The existence of the rich gold and silver deposits from the mining area of Săsar has boosted up the early development of the mining activities in this area, the archaeological artifacts and historical documents prove the existence of these activities from the earliest times.

CN REMIN SA Baia Mare managed almost entirely gold-silver and complex mineral reserves in this part of country.

The local mining activity can be traced back into the earliest times as it represented one of the most important industrial branch in this area and consequently the main source of existence for the locals, this skill being passed on from generation to generation. Today, this activity is evidently declining.

Restructuring of the mining industry in our country affected and CN REMIN SA, so the number of properties of company asset remained available or can be made available for use for other purposes to achieve the benefits of favorable effects in terms of the correct and effective the real estate in equipment but it is necessary and important achievement mining cadastre.

2. SUBJECT, THE LEGISLATIVE FRAMEWORK AND SAME SPECIFIC NOTIONS MINING CADASTRE

Mining Cadastre is Cadastre specialty in the field of mining exploitation, being a subsystem of records and a systematic register of the properties related to the mining activities (land, buildings, surface and underground installations) from technical, economical, juridical point of view. These should be connected with all the necessary works for registering in the technical documents of the general survey and the land registration documents of the mining activity.

The objectives that are expected to be fulfilled by executing mining survey works in CN REMIN SA Baia Mare are as follows:

- determining land surfaces with or without buildings owned by CN REMIN SA Baia Mare;
- administration and proper management of heritage CN REMIN SA Baia Mare and defending the real estate rights by nominating the properties in the cadastral registers and land books and mining books;
- providing a correct basis for establishing taxes, fees owned to the state for mining activities both at the surface and in the underground, according to the acting legal framework;
- establishing the mining area from juridical point of view (exploitation and exploration mining perimeters) by including the lands used for mining works into the general cadastre.

The contractors of the mining cadastre works must be physical or juridical persons authorized by ANCPI (The National Agency of Cadastre and Land Registration), and the underground cadastre works will be executed by authorized persons according to the Mining Surveying Regulation.

Legislative Framework. The activity of this cadastre specialty is legally regulated by the following specific normative laws, together with the general regulations of the cadastre activity:

- The Mines Law no. 85/2003 and methodology ;
- Mining Survey Regulation approved by the Decision no. 9 of the Ministry of Industries, Department of Mines and Geology.

Specific for this cadastre specialty are the following technical terms and notions:

Mining Book – a component of the extractive cadastre that comprises all the data concerning the legal framework of the surfaces included in the prospective, exploration and exploitation of the perimeter and the ownership and topographical situation of the works specific to mining activities, mineral resources and production;

General topographical plan – graphical representation, at a smaller scale than of the cadastral plan, containing the entire surface of the administrative territory as a result of the generalization of the elements contained in the topographical plan.

Mining projection plan – contact plan of the reference in point „0” that is the projection of a point situated approximately in the centre of the mining basin;

Reference Surface in the Mining System – level surface of „zm” mark, equal to the medium mark of the ensemble of the mining works. The point of origin and the orientation of the reference direction have common elements with the geodesic state network.

Layer – a logical group of data that can be assimilated to some clear foils laid over a drawing.

3. STAGES OF A MINING CADASTRE WORK

3.1. Geodesic Networks

Land measurements are based on points from the geodesic state network and according to the necessities it can be thickened so that the density of the points could ensure the topographical and cadastral works , taking into consideration the fact that the existent topographical works taken in the Baia Mare Mining Area are made in the Mining Reference system „Baia Mare 60” (3).

The points of support and measurement will satisfy the precision conditions imposed by the Technical Normative for Introducing General Cadastre, as provided by ONCGC, being determined in the Stereographical projection system 1970 and in the own system of the mining basin, „Baia Mare 60” and according to the reference system Black Sea 1975.

In the mining facilities of CN REMIN SA Baia Mare and in each of isolated properties will be placed at least 3 landmarks, at a distance of approx. 250-500 m one from the other. The landmarks will be placed in safety zones, all conditions of stability, accessibility and visibility being provided.

3.2. Cadastral Delimitation of the Mining Perimeter

The delimitation of the location is established by a delimitation committee, appointed by decision of the director of CN REMIN SA company, owner of the license, that is formed by a experts representing both the beneficiary and the contractor, a representative of the local council of Baia Mare municipality and other members as required by the regulations of ANCPPI.

The representatives of the mining unit and of the contractor are expected to sign a delivery-receiving report (an acceptance report of the location) that describes the location of the mining entity and its boundaries.

In the case where there is no stable delimitation, the limit will be marked in the break point of boundary. For each boundary breaking point of the perimeter, assumed in legal documents and neighboring protocols, and also for the marked points or immaterialized points, the coordinates will be determined in the Stereographic 1970 projection system, topographical descriptions being provided.

A file of cadastral delimitation will be prepared that mainly contains the following documents (Tămăioagă Gh, 2005):

- technical memorandum;
- data provided from the processing of land measurements, on magnetic support file of ASCII;
- the diagram of the taken measurements (sighting lines);
- for each building unit, OCPI registers the cadastral number and surface;
- the constitution document of the delimitation committee ;
- the general diagram of the boundary limits of the location , at a convenient scale of (1:5.000, 1:10.000), with the numbering of points;
- register diagram and topographical description of the materialized points on the boundaries of the location ;
- inventory of the coordinates for all the points on the boundary of the location (materialized and immaterialized)
- the calculated surface resulted from the coordinates of the points situated on the boundary of the location
- the protocol of cadastral delimitation and neighboring, as provided by the acting legal provisions.

3.3. Content of the Cadastral Plan

Setting up and compiling the cadastral plan in an analogical/and digital format must respect the following standardized provisions:

- the general cadastral plan is made as a rule, at a scale of 1:2.000, 1:5.000 or 1:10.000 and contains the entire surface of the assigned building units;
- the basis cadastral plan is made at a scale of 1:2.000 or 1:1.000 for platforms, warehouses etc., and at a scale of 1:500 for the mining units or isolated property units (ventilators, air shafts, etc.)
- creating the tables (in analogical format that can be modified) for the general cadastral plan and for the basis cadastral plan, is made in accordance with the choice of the beneficiary, in different formats: A4, A3, A2, A 1 or AO, taking into account the scale representation of the usable surface and in the own reference system of the mining basin, as provided by „Caiet (Booklet) D.G.M. 005 – 67”.

Setting up and compiling the topographical-cadastral plan in an analogical/and digital format must respect the following standardized provisions:

- the digital topographical plans and the digital cadastral plan are structured on different layers and can contain all information described in detail;
- the representation of the content details will be made, taking into consideration the scale and respecting „The Atlas of Conventional Signs for Topographical Plans at the Scales of 1:5.000, 1:2.000, 1:1.000 and 1:500”, edition 1978, until a new atlas of conventional signs will be elaborated, approved and published. The main elements that must be included in the topographical plan of the surface are the property boundaries and the facilities used for mining activities.

Planimetric details of the topographical plans will be determined on site with a precision of +/- 10 cm from the geodesic network.

The digital topographical plan will be structured on layers, administered on a Geographical Information System (GIS), it may contain the following layers :

- old points of triangulation, specific for the mining area “Baia Mare 60”;
- points of the basis geodesic network and frequency points;
- juridical boundaries of the mining area and indication of the neighbors ;
- stereographic grid;

- grid of the mining system in the current basin ;
- symbol that marks the rayed point;
- number of the rayed point;
- measuring points;
- boundary of the facility;
- vegetation;
- hydrographic (limits of the minor course and of the major course, axis or river flow);
- road ways;
- railways;
- level curves according the drawing scale;
- technological platforms and warehouses;
- surface mining constructions (mining shafts, air shafts, transporting bends etc.);
- buildings;
- electrical pillars;
- surface transport networks;
- underground networks (communication, electrical, water, compressed air, channels, etc.);
- geological exploitation limits;
- drills;
- limits of the legal documents that certify the ownership or the administration rights for that property ;
- lots (encumbrance fond), near the influence area of the mining objective (dominant fond);
- delimitation from the land lots of the neighbors, indicating the owners ;
- administrative-territorial limits and urban buildable components;
- green areas (protection wood side, decorative etc.);
- affected land (quarries, brown fields, tailing ponds, subsidence areas etc.);
- properties under litigations;
- delimitation of the land on taxing criteria (performance polygons);
- cadastral numbering.

3.4. Cadastral Numbering and Cadastral Registers

The cadastral numbering of the property units is made by the Cadastral and Land Registration Offices (OCPI), according with art. 10.2.2 of the Technical Regulations for Introducing the General Cadastre (4).

The cadastral numbering of the property units used for mining activities that present linear details as for example: river flows, channels, dams, railroads, classified roads, are numbered separately for each urban buildable area and outside the buildable area. The linear details are give a single cadastral number for the entire length (exception for under-crossings), for each urban buildable area and one single cadastral number for the areas outside the urban buildable and their sections, created within the intersection with other linear details (separately for urban buildable and outside the urban buildable).

The elaboration of the technical cadastral documentation of the mining objectives with the purpose of nomination in the cadastral registers will be accomplished with the notification of the OCPI, in accordance with the regulations and technical norms of the ANCPPI.

The topographical documentations made for establishing and evaluating the land of the trading companies with state participation, according to the Government Decision no. 834/1991 and the subsequent modifications, will be accepted with the purpose of registering in the land book for a non-definite term, with the condition of being updated by authorized professionals, adapted to the technical normative and certified accordingly with the legal previsions of the OCPI.

Updating and maintaining the cadastral works in the filed of mining will be made with a regularity of maximum 6 years, or whenever it is needed.

The acceptance and the internal certification of the cadastral works will be carried out by a committee appointed by decision of the license owner, CN REMIN SA Baia Mare. The committee will check on-site the correspondence of the elements with those mentioned in the plan.

After this stage is accomplished the final acceptance will be certified by a sign protocol. The internal acceptance of the cadastral mining works will be done only if it is proved that the documentation has been elaborated by a authorized evaluator and if the receiving protocol has been issued by OCPI.

3.5. The Topographical - Cadastral Documentation of the Mining Cadastre

The documentation that has been obtained by accomplishing the mining cadastral works contains the following pieces (Ştefan, 2009):

- Certification for starting the works, issued by OCPI;
- Theme of the work;
- Technical memorandum;
- Delivery report of all the objectives, accompanied by the proper diagrams signed by the representatives of the beneficiary and of the contractor;
- Inventory of coordinates of the radiant points;
- Inventory of coordinates (in the Stereographic – 1970 projection system and the projection system of the mining basin “Baia Mare 60”) and register diagrams;
- Topographical descriptions of points of survey network;
- Calculation and compensation of the coordinates of the points of survey network;
 - The file of the property unit , according to appendix no. 1 of the Technical Regulations for Introducing the General Cadastre;
 - The cadastre register of the lots located on the territorial administrative unit, according to appendix no 2 of the Technical Regulations for Introducing the General Cadastre;
 - Alphabetical index of the land owners an their residence according to appendix no 3 of the Technical Regulations for Introducing the General Cadastre
 - The Cadastre register of land owners on that territorial- administrative unit according to appendix no 4 of the Technical Regulations for Introducing the General Cadastre
 - The register of the property units according to appendix no 5 of the Technical Regulations for Introducing the General Cadastre;
 - Summarizing card on land owners groups and usage categories, that will indicate the total surface according to appendix no 6 of the Technical Regulations for Introducing the General Cadastre;
 - Digital topographical/cadastral plan ;
 - Delimitation documentation;
 - Technical evaluation documentation;
 - Final acceptance protocol.

4. CONCLUSIONS

CN REMIN SA Baia Mare is one of the most important mining units from our country due to the aspect of the deposits and also due to the territorial extent and of the properties owned, without minimizing the importance of the its location: as much of the property units are located in the buildable urban area of the Baia Mare municipality.

In the context of the reorganization of the mining industry, many properties from the CN REMIN SA Baia Mare patrimony have become free of obligations and in the situation of a high

demand of properties located in the buildable urban area; there are several properties that are available for different purposes that can generate favorable benefits if used correctly and efficiently.

Nevertheless, the correct use of the available properties can be done only if there is a correct evidence and identification of the owned properties. The correct and complete evidence imposes under the legal framework, the elaboration of the mining cadastre of the CN REMIN SA Baia Mare and entry in the land of the properties as a first but most crucial step towards the efficient use of the owned properties. Currently Romania has, in the field of cadastre and real estate advertising, a pretty well structured legislation, aligned to the legislation and practice in the field of cadastre general standards of Eu, which although was developed prior to the introduction of the concept of "Cadastre 2014", responds to this concept.

5. REFERENCES

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BIOGRAPHICAL NOTES

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