THE POSSIBILITIES OF USING EUROPEAN FUNDS TO ADDRESS THE CONTAMINATED SITES IN SLOVAKIA

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Ministry of the Environment of the Slovak Republic

SOER 2015 — The European environment — state and outlook 2015

On the basis of non-harmonised national inventories, local soil contamination in the EEA-33 plus the 6 cooperating countries has recently been estimated at 2.5 million potentially contaminated sites. About one third of an estimated total of 342 000 contaminated sites in the EEA-33 plus the 6 cooperating countries have already been identified and about 15% (58 300 site) of these have been remediated. However, there are substantial differences in underlying definitions and interpretations in different countries.

Progress in management of contaminated sites (CSI 015/LSI 003) - Assessment published May 2014

Expenditure

- In the countries surveyed, on average 42 % of total expenditure is derived from public budgets, ranging from 90% in Estonia down to a minimum of about 25 % in Belgium (Flanders). The 2006 assessment reported a smaller share for public expenditure at 35 %.
- Annual national expenditures for the management of Contaminated Sites are on average about EUR 11 per capita, ranging from approximately EUR 2 in Serbia to more than EUR 30 in Estonia. This corresponds to an average of 0.04 % of national GDP. Compared to 2006, average national expenditures for the management of contaminated sites decreased (EUR 12 per capita; 0.07 % of national GDP).

Progress in management of contaminated sites (CSI 015/LSI 003) - Assessment published May 2014

- On average, 81 % of the annual national expenditures for the management of contaminated sites is spent on remediation measures, while only 15 % is spent on site investigations.
- Costs for site investigations generally fall in the range of EUR 5 000-50 000 (60 % of reported cases). Investigations that cost more than EUR 5 million are only found in Italy and Switzerland.
- Costs for remediation projects usually fall in the range EUR 50 000-500 000 (40 % of the reported cases). Small remediation projects costing less than EUR 5 000 and extremely large remediation projects costing more than EUR 5 million are rarely reported.

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Prospects

The lack of good-quality and harmonised soil data at pan-European scale, and the relatively undeveloped state of research on linking soil data with soil functions, makes it difficult to assess the prospects for soil functionality and soil-based ecosystem services. Only when robust baselines and a harmonised soil monitoring framework (addressing relevant soil functions and degradation processes) are in place can regular updates on trends be expected. Despite some promising projects, activities are clearly insufficient to deliver a comprehensive information and knowledge base to adequately support policy making in this area. Further research is thus needed to manage soils sustainably in the future. A binding and coherent soil policy at EU level would provide the framework to do so.

Activities of the Ministry of the Environment

- Systematic inventory of contaminated sites in Slovakia (2006 2008)
- Information System of Contaminated Sites (2008 2010)
- The State Programme of Contaminated Sites Remediation (2010 2015) was approved by the Slovak government in March 2010
- The Operational Programme Environment 2007-2013 has been implemented

Results of Systematic Inventory

- Long list of suspicious localities 12 000
- Checked in field 6 000 localities
- **Registered 1819 localities**
 - Contaminated sites 257
 - Remediated sites 684
 - Potential contaminated sites 878



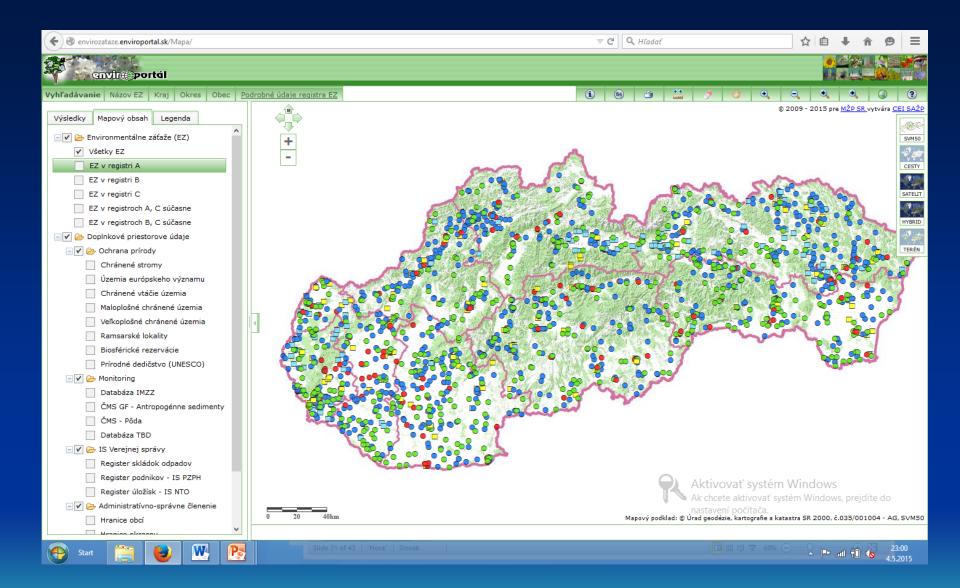
Information System of Contaminated Sites

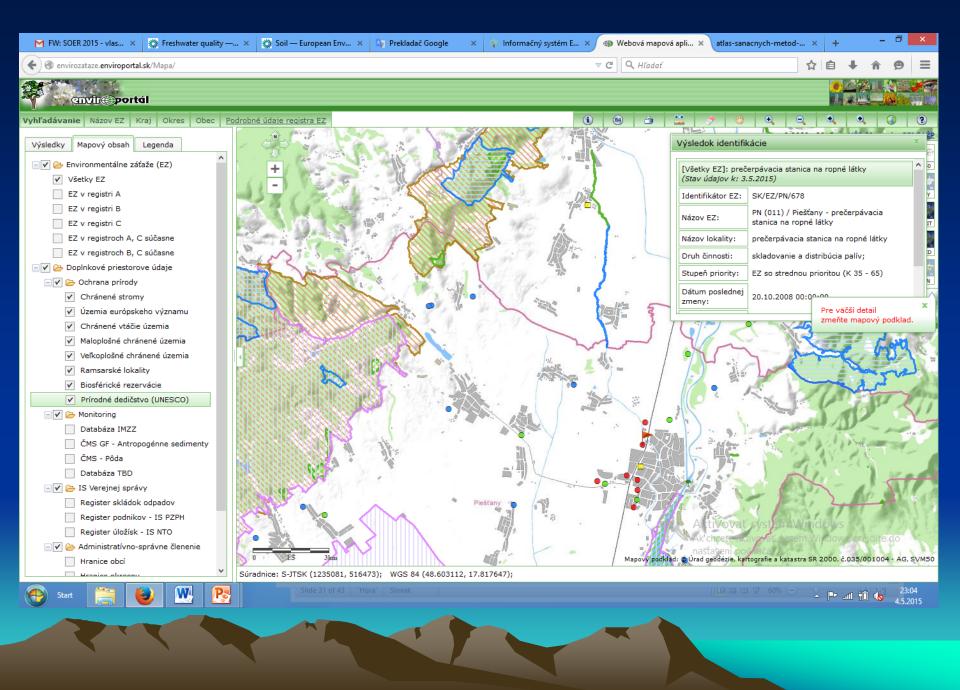
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Základné pojmy a definície	Environmentálne záťaže								
Legislatíva									
Metodické pokyny a formuláre	ZÁKLADNÉ POJMY A DEFINÍCIE								
Strategické dokumenty, projekty									
Kalendár podujatí	Environmentálna záťaž:								
Informačný systém									
Informačný systém o ŽP	Je stav vzniknutý kontamináciou pôdy a horninového prostredia ako zložiek životného prostredia nad mieru kritérií ustanovených v prílohe č. 1 (návrhu zákona). Environmentálna záťaž je aj stav vzniknutý kontamináciou podzemnej vody ako zložky životného prostredia nad mieru kritérií ustanovených osobitným predpisov (zákon o vodách)								
O enviroportáli									
EnviroInfo	Pravdepodobná environmentálna záťaž:								
Informačný systém monitoringu ŽP	Pravdepodobnou environmentálnou záťažou je predpokladaná kontaminácia podzemnej vody, pôdy a horninového prostredia ako								
Informačný systém o území	zložiek životného prostredia v dôsledku ľudskej činnosti, kde kontaminácia								
Správy o stave ŽP	• je doložená laboratórnymi analýzami a terénnymi meraniami, ktorých rozsah nie je postačujúci na jednoznačné potvrdenie jej								
Indikátory	prítomnosti, • bola zistená staršími prieskumnými alebo monitorovacími prácami (spravidla viac ako 10 rokov),								
Dokumenty Medzinárodné dohovorv	 je podložená archívnymi záznamami orgánov štátnej správy alebo samosprávy o kontaminácii zložiek životného prostredia alebo o nevhodnom nakladaní so znečisťujúcimi látkami, 								
Akčné plány na zabezpečenie kvality ovzdušia	 je podložená údajmi z environmentálnych databáz, je indikovaná iným spôsobom (vizuálne, senzoricky, poškodením vegetácie, uhynutými organizmami a podobne), 								
Programy a integrované programy na zlepšenie kvality ovzdušia	Zodpovedná osoba za EZ: a) pôvodca, 								
Environmentálna regionalizácia SR	 a) povoda, b) držiteľ environmentálnej záťaže, ak nemožno zistiť pôvodcu, c) štát v zastúpení tým ministerstvom, ktorého charakter činnosti súvisí so vznikom environmentálnej záťaže (ďalej len "príslušné ministerstvo"), ak nemožno určiť zodpovednú osobu podľa písmena a) alebo b), 								
Menu	 d) štát v zastúpení príslušným ministerstvom, ak prevzal zodpovednu osobu podľa pismena a) alebo b), d) štát v zastúpení príslušným ministerstvom, ak prevzal zodpovednosť podľa odseku 7 (návrhu zákona), 								
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	_	Názov EZ	Register	Názov lokality	Obec	Okres	_	Kraj	
	Detail	BB (006) / Banská Bystrica - Uľanka - areál Chemika a.s.	Register B	Uľanka - areál Chemika a.s.	Banská Bystrica	Banská Bystr	ica B	anskobystrick	
	Detail	BJ (003) / Bardejov - areál Bardejovských strojární (ZŤS)	Register B	areál Bardejovských strojární (ZŤS)	Bardejov	Bardejov	Pi	rešovský	
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	Detail	BJ (005) / Bardejov - areál SNAHA v.d.	Register B	areál SNAHA v.d.	Bardejov	Bardejov	Pi	rešovský	
	Detail	BJ (007) / Bardejov - elektrická stanica (ES)	Register B	elektrická stanica (ES)	Bardejov	Bardejov	Pi	rešovský	
	Detail	BJ (020) / Kurima - obaľovačka	Register ∆	obaľovačka	Kurima	Bardejov	P	rešovský	

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Activities of the Ministry of the Environment - cont.

- New legislation on contaminated sites was approved (2009, 2011)
- New methodical manuals were proposed and approved (2012, 2015)
- Public information campaign was carried out (paper publications, leaflets, movies, articles, trainings, school competition)
- Priorities for the new financial mechanism for 2014 2020 were proposed

Operational Programme Environment Slovakia 2007-2013

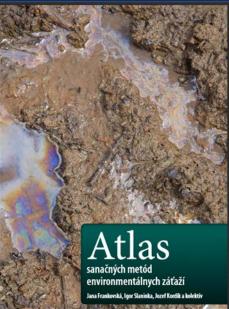
- ***** Adopted in November 2007
- * Contaminated sites are incorporated into chapter ,,WASTE"
- Contaminated sites with responsibility of state are preferred
- * Allocation about 118 mil. EUR

Operational Programme Environment Slovakia 2007-2013

- Monitoring and investigation of contaminated sites and elaboration of risk analysis
- Remediation of the most risky contaminated sites
- Finalisation of the Information System of Contaminated Sites, development of the Atlas of remediation technologies, projects oriented to public relations, awareness and publicity of the activities related to remediation of contaminated sites

EU Projects focused on contaminated sites

- Regional studies of the environmental impacts of contaminated sites in selected regions (2008 2010)
- Atlas of remediation technologies for contaminated sites (2010 2011)
- Upgrade of the Information system
- of contaminated sites (2010 2014)
- Education and public awareness as a support in contaminated sites remediation in SR (2012 – 2015) – on going



Projects focused on contaminated sites

- Investigation of contaminated sites (54 localities) on going
- Potencially contaminated sites investigation in selected localities (87 localities) on going
- Monitoring of contaminated sites (160 localities) on going
- Remediation of contaminated sites (19 localities) on going



Bošany - koželužne (Tanneries)



Predajná - gudrons



Storage of chemicals – Partizánske



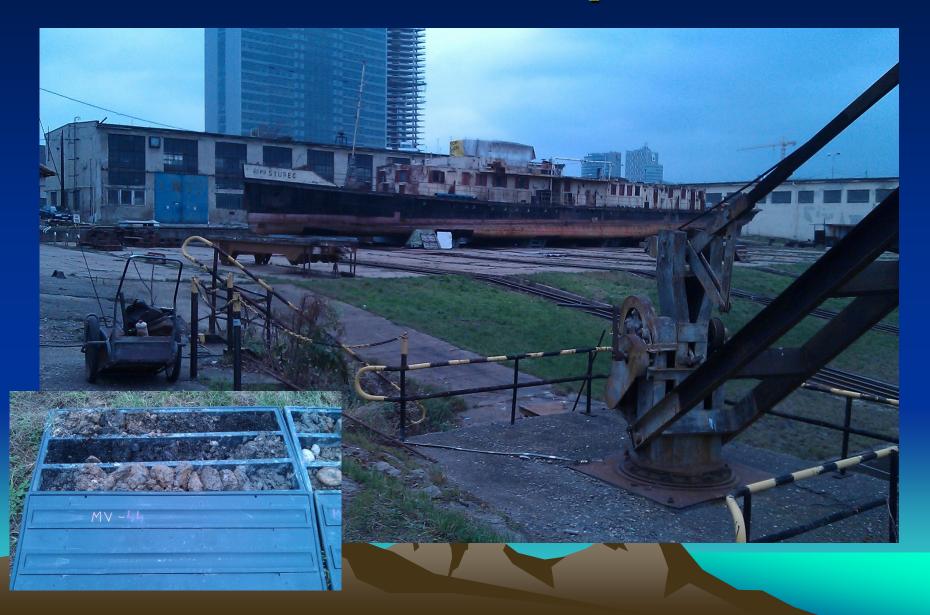
Žilina – industrial site



Žilina – industrial site



Bratislava – river port



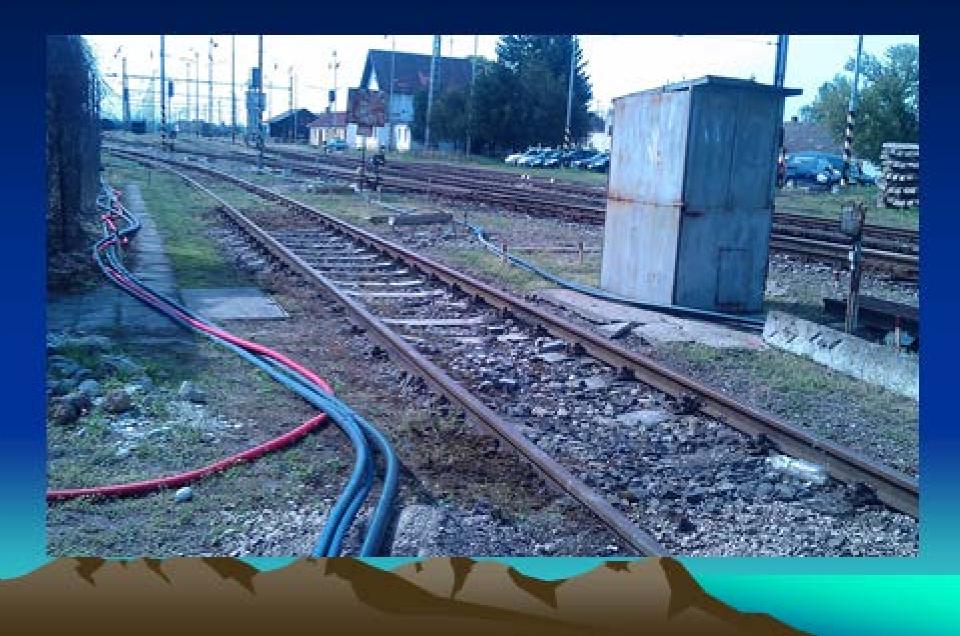
Boldog – old pesticides



Piešťany – military site



Jablonica



OPERATIONAL PROGRAMME QUALITY OF THE ENVIRONMENT (2014 - 2020)

The main objective of the Operational Programme Quality of the Environment is to promote the sustainable and efficient use of natural resources, ensuring environmental protection, active adaptation to climate change and promote energy efficiency and low carbon economy. In order to achieve this overall objective the investment strategy of the operational program including three basic thematic objectives has been proposed to:

1. Support the transition to a low-carbon economy in all sectors,

2. Support for climate change adaptation, risk prevention and risk management,

3. Protect environment and promote resource efficiency.

Specific objectives and activities

The specific objectives will be met through the following activities:

A. Investigation, remediation and monitoring of contaminated sites in urban environment and in brownfield sites (including areas undergoing change),

B. Improving the awareness of issues of contaminated sites. Activities:

- a) Permanent updating of the information system of contaminated sites,
- b) Investigation of priority contaminated sites, including elaboration of risk analysis of polluted areas,
- c) In the case of extensive contamination to ensure elaboration of feasibility studies of remediation of contaminated sites,
- d) Remediation of contaminated sites in accordance with the "polluter pays principle" and in accordance with the rules on state aid,
- e) Monitoring of contaminated sites.

Legislation

- Act No. 569/2007 Coll. on geological works (Geological Act)
- **Definitions of:**
 - contaminated site
 - probable contaminated site
 - geological investigation of the environment including investigation of probable contaminated sites and contaminated sites
 - remediation of contaminated sites
 - Information system of contaminated sites
 - State programme of contaminated sites remediation
 - professional geologic supervision
- Regulation of the MoE SR No. 51/2008 Coll. implementing the Geological Act

Legislation - cont.

- Act No. 409/2011 Coll. on certain measures in relation to contaminated sites and on the amendment of certain acts
 - Identification of contaminated site
 - Determination of obliged person (polluter pays principle)
 - Duties of obliged person
 - Work plan for remediation of contaminated site
 - State administration
 - Penalties

State Programme of Contaminated Sites Remediation

- Represents the basic strategic document for contaminated sites issue
- Approved by the Slovak government on 3 March 2010
- Valid for period of 2010 2015
- New State programme of CSR (2016 2021) in preparation

Financing

- State budget
- Environmental fund
- European funds
- Private sector



Bratislava - gudrons



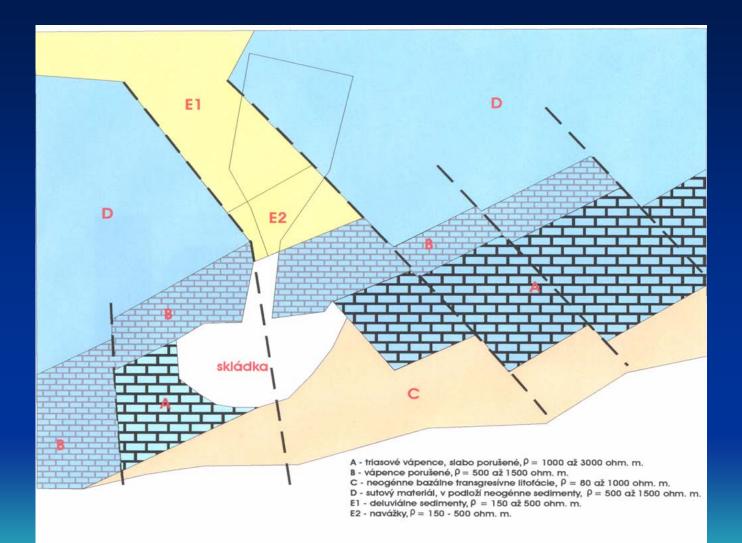


Gudrons



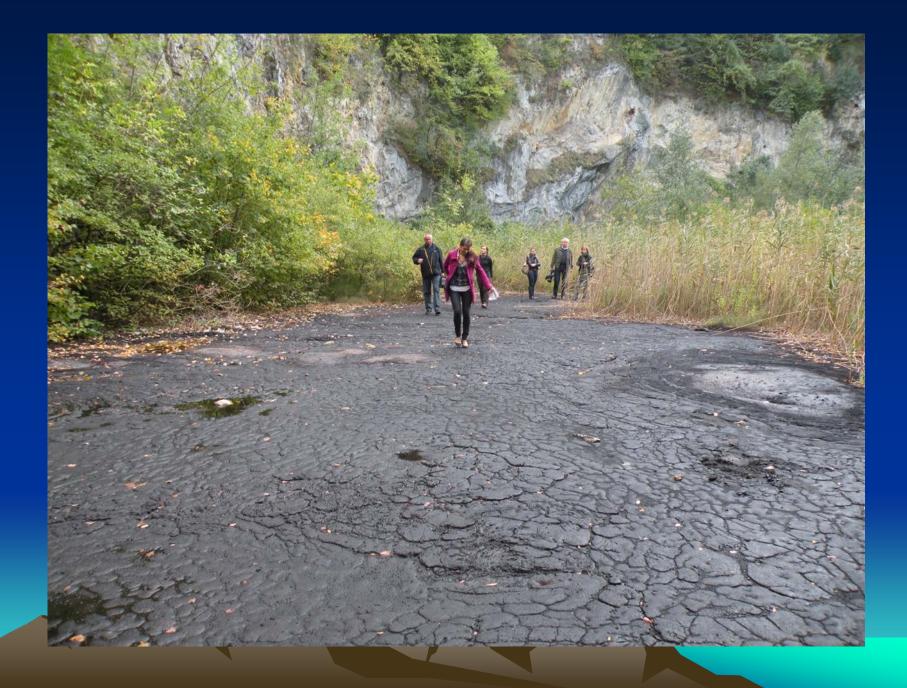
- Gudrons are acidic resin and sludge generated primarily as by-products of the refining of petroleum,
- During the refining gudron absorbs sulphuric acid and hydrocarbons, such as resins, organic sulphuric acids, asphaltenes and unseparated part of raffinate,
- Gudrons are characterized by high toxicity, mutagenicity, teratogenicity and carcinogenicity,
- The risk results from emergency of leachate escape, which can degrade surface and ground water, soil and human health.

Geological scheme

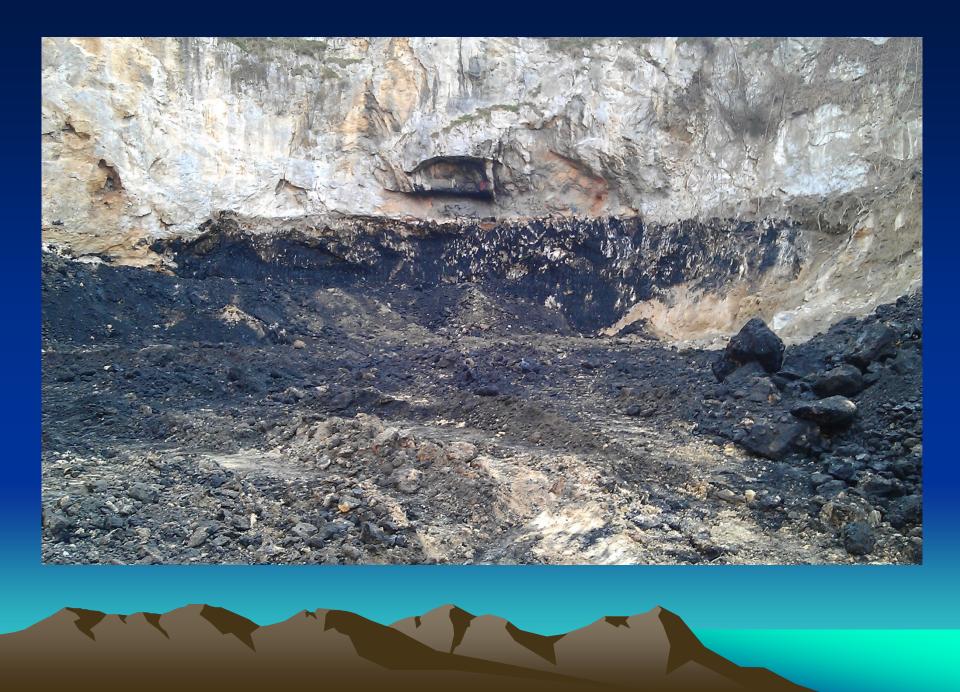


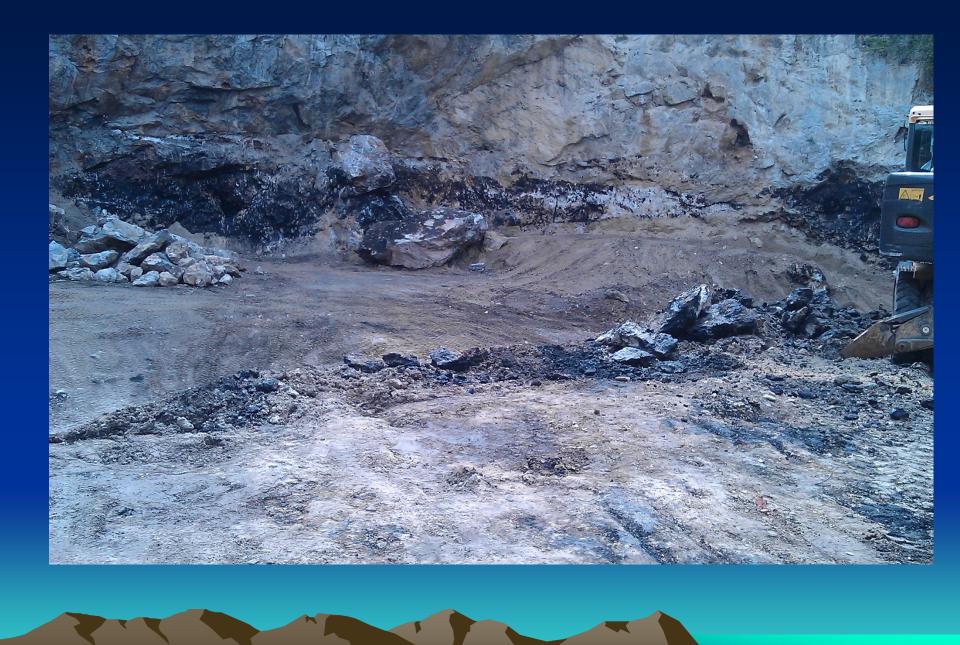


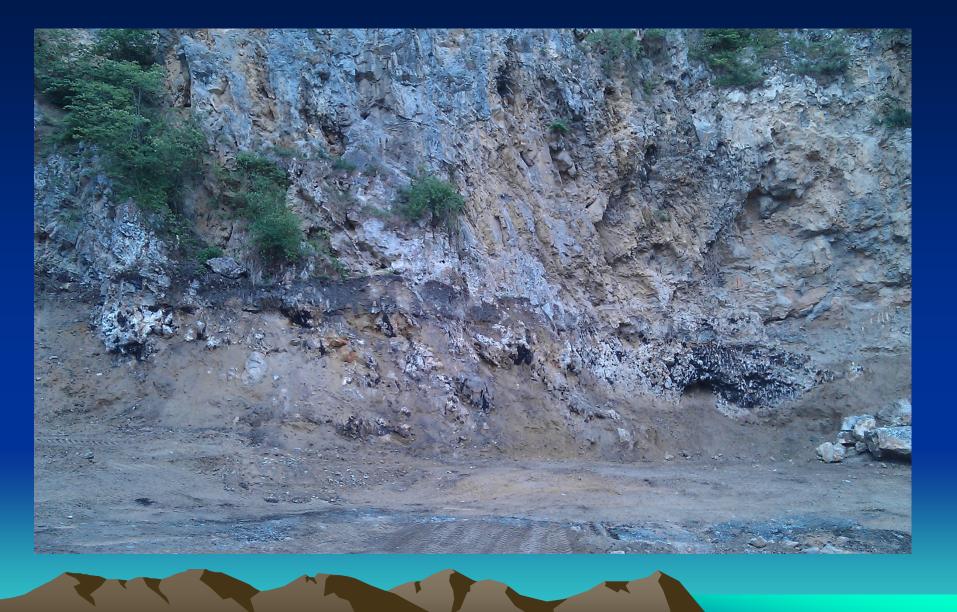














Thank you for your attention

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