

## Visit to the Mont Terri and Grimsel Rock Laboratory Project Progress Meeting 04 Workshop: Bentonite buffer, blocks and granulates Switzerland September 30<sup>th</sup> - October 2<sup>nd</sup>, 2013

<b>Time:</b>	Monday September 30 <sup>th</sup> to Wednesday October 2 <sup>nd</sup> , 2013  Optional excursions: Visit to the Grimsel Rock Laboratory on Monday September 30th (afternoon) Visit to the Mont Terri Rock Laboratory on Wednesday October 2nd (afternoon)
<b>Place:</b>	Hotel Moevenpick, 8105 Zurich-Regensdorf, Switzerland
<b>Goal:</b>	Share experiences and information from the first parts of the LUCOEX project and from on-going research in relevant areas with a focus on the clay materials used.

### General Agenda

<b>Monday September 30<sup>th</sup></b>	
12.00 – 18.00	<b>Grimsel URL visit (<a href="http://www.grimsel.com">www.grimsel.com</a>)</b> <i>Nagra offers a half day guided visit to the rock laboratory in Granite at the Grimsel Test Site. The excursion will depart from Hotel Moevenpick during the afternoon on Monday (September 30<sup>th</sup>). The complete excursion is expected to last 6 hours.</i>
<b>Tuesday October 1<sup>st</sup></b>	
09.00 – 14.45	LUCOEX Project Progress Meeting
15.00 – 18.30	LUCOEX Steering Committee Meeting (invitees only)
19.00 – 22.00	Diner at Hotel Moevenpick, 8105 Zurich-Regensdorf
<b>Wednesday October 2<sup>nd</sup></b>	
08.00 – 14.00	LUCOEX Theme Workshop – Bentonite Buffer, -Blocks and -Granulates
14.00 – 20.00	<b>Mont Terri URL visit</b> <i>Nagra offers a half day guided visit to the rock laboratory in Shales at the Mont Terri Rock Laboratory. The excursion will depart from Hotel Moevenpick after the Theme Workshop (and included lunch) d. The complete excursion is expected to last 6 hours.</i>

## Visit to the Grimsel Test Site Switzerland September 30<sup>th</sup>, 2013

<b>Time:</b>	Monday September 30 <sup>th</sup> , 2013	
<b>Place:</b>	<p>The excursion will depart from Hotel Moevenpick at 12:30 on Monday (September 30<sup>th</sup>).</p> <p>Everybody will gather at the lobby of Hotel Moevenpick. From there NAGRA has arranged cars that will take us to/from the Grimsel Test Site. The complete excursion is expected to last 6 hours.</p>	
<b>Goal:</b>	Give an introduction to the capabilities and research conducted at the granite rock laboratory at the Grimsel Test Site.	
<b>Participants:</b>	<b>Name / Organization</b>	<b>Signature ("I attended the event")</b>
	Weber Hanspeter, Nagra	
	Gugala Jan, SKB	
	Salo Jukka-Pekka, Posiva	
	Pihlainen Hannu, Posiva	
	Gentles Dean, NDA	
	Haapala Keijo, Posiva	
	Rantamäki Pasi, Posiva	
	Kronberg Magnus, SKB	
	Morel Jacques, Andra	
	Conil Nathalie, Andra	
	Eriksson Peter, SKB	
	Smutek Jan,	
	Laine Heini, Saanio & Riekkola Oy	

## Project Progress Meeting 04 Switzerland October 1<sup>st</sup>, 2013

<b>Time:</b>	Tuesday October 1 <sup>st</sup> , 2013 Project Progress Meeting 09:00 – 14:45 Steering Committee meeting 16:00 – 18:30 Common Dinner 19:30	
<b>Place:</b>	Hotel Moevenpick, 8105 Zurich-Regensdorf, Switzerland	
<b>Goal:</b>	Present the status of each of the LUCOEX work packages, share experiences and information from the first parts of the LUCOEX project and identify any issues that should be lifted to the steering group.	
<b>Participants:</b>	<b>Name / Organization</b>	<b>Signature ("I attended the event")</b>
	Weber Hanspeter, Nagra	
	Vietor Tim, Nagra	
	Gugala Jan, SKB	
	Garitte Benoit, Nagra	
	Salo Jukka-Pekka, Posiva	
	Thurner Erik, SKB	
	Gentles Dean, NDA	
	Haapala Keijo, Posiva	
	Rantamäki Pasi, Posiva	
	Kronberg Magnus, SKB	
	Morel Jacques, Andra	
	Conil Nathalie, Andra	
	Eriksson Peter, SKB	
	Fujiyama Tetsuo, NUMO	
	Smutek Jan,	
	Hoffmann Christian, CIMNE - UPC	
	Laine Heini, Saanio & Riekkola Oy	
	Kickmaier Wolfje, MCM	
	Klein Elizavela	

## Agenda - Project Progress Meeting 04

<b>1. Welcome and introduction (09:00)</b> <ul style="list-style-type: none"> <li>- Choosing chair of meeting</li> <li>- Additional items to the agenda</li> <li>- Finalization and Approval of agenda</li> </ul>	SKB/NAGRA	
<b>2. Progress and plans WP1 / WP6</b> <ul style="list-style-type: none"> <li>- Progress and plans</li> <li>- Project formalities</li> </ul>	SKB	
<b>3. Progress and plans WP2</b> Full Scale Emplacement Experiment (FE) Mont Terri	NAGRA	
COFFEE		
<b>4. Progress and plans WP3</b> ALC Full scale emplacement experiment at Bure	ANDRA	
<b>5. Progress and plans WP4</b> Multi-Purpose Test KBS-3H	SKB	
LUNCH		
<b>6. Progress and plans WP5</b> KBS-3V Emplacement tests in ONKALO	POSIVA	
<b>7. Discussions</b> <ul style="list-style-type: none"> <li>- Discussion of issues raised during the WP presentations.</li> <li>- Items to forward to the SCM.</li> </ul>	Chair of meeting	
<b>8. Summary (-14:45)</b>	Chair of meeting	
<b>Steering Committee Meeting 07 (-18:30)</b> Separate agenda distributed to Steering committee Members		SKB
<b>Diner at Hotel Moevenpick, 8105 Zurich-Regensdorf (19:00)</b>		NAGRA

## LUCOEX Theme Workshop: Bentonite-Buffer, -Blocks and -Granulates Switzerland September 30<sup>th</sup> - October 2<sup>nd</sup> 2013

<b>Time:</b>	Wednesday October 2nd	
<b>Place:</b>	Hotel Moevenpick, 8105 Zurich-Regensdorf, Switzerland	
<b>Goal:</b>	Share experiences and information from the first parts of the LUCOEX project and from on-going research in relevant areas with a focus on the clay materials used.	
<b>Participants:</b>	<b>Name / Organization</b>	<b>Signature ("I attended the event")</b>
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	Eriksson Peter, SKB	
	Fujiyama Tetsuo, NUMO	
	Smutek Jan,	
	Hoffmann Christian, CIMNE - UPC	
	Laine Heini, Saanio & Riekkola Oy	
	Kickmaier Wolfje, MCM	
	Klein Elizavela	
	Sakaki Toshihoro	

## Agenda - LUCOEX Theme Workshop: Bentonite

<b>1. Welcome and introduction (08:00)</b>	Jan Gugala, SKB
<b>2. From Raw material to buffer components</b> – The production process using uniaxial compression	Peter Eriksson, SKB
<b>3. Experiences from the transportation and handling of uniaxially compressed buffer blocks</b>	Magus Kronberg, SKB
<b>4. Safety case and EBS</b> - how EBS initial state was accounted for based on the production and design descriptions	Heini Laine
<b>5. Emplacement Tests with granular bentonite</b>	Nagra
<b>6. Laboratory Analyses on Na-bentonite blocks</b>	Nagra
<b>COFFEE</b>	
<b>7. Manufacturing and handling of buffer blocks in WP5</b>	Keijo Haapala, Posiva
<b>8. WP5 demonstrations:</b> - Demonstration plan - Testing facilities in Onkalo-area - work safety during the tests.	Keijo Haapala, Posiva
<b>9. Experimental and constitutive study of bentonite pellet mixtures</b>	Christian Hoffmann
<b>10. Large scale sealing experiment (NSC experiment in Bure) – progress</b>	Andra
<b>11. BHN experiment in Bure</b> – natural saturation test of a bentonite core at an intermediate scale between borehole and drift.	Andra
<b>12. Ongoing research on bentonite barriers at the Josef URC</b>	Jan Smutek
<b>13. Concluding statement. End of workshop.</b>	Jan Gugala

## Visit to the Mont Terri Rock Laboratory Switzerland, October 2<sup>nd</sup>, 2013

<b>Time:</b>	Wednesday October 2 <sup>nd</sup> , 2013 14:00 – 20:00	
<b>Place:</b>	The excursion will depart from Hotel Moevenpick after lunch on Wednesday. Everybody will gather at the lobby of Hotel Moevenpick. From there NAGRA has arranged cars that will take us to/from the Mont Terri rock laboratory. The complete excursion is expected to last 6 hours.	
<b>Goal:</b>	Give an introduction to the capabilities and research conducted at the Mont Terri Rock laboratory.	
<b>Participants:</b>	<b>Name / Organization</b>	<b>Signature ("I attended the event")</b>
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