

Procedure Plan for 3 hour Ice Cave Tour (Crystal Cave Tours)

Guides certifications for operation of tour:

- **AIMG Hard Ice 1 + Ice Cave Course**
- **Have a valid First Aid certification**
- **Possess a D1 driving license according to Icelandic Standards**

For this 3 hour Ice Cave Tour, the guiding certifications required are AIMG Hard Ice 1 & the Ice Cave Course. The guide will either come to the company with these certifications or they can participate in either in-house training or training with an external provider in order to fulfill the pre-requisites of Hard Ice 1. Once the training is completed, the guide will be signed up for the next available course. The Hard Ice 1 guide will be under the supervision of a Lead Guide with Hard Ice 3.

Guide / guest ratio:

The guide to guest ratio is 1:14 for an Ice Cave tour that does not include a glacier walk.

Description for Ice Cave Photo Tour

Embark on an unforgettable adventure with our ice cave tour in Iceland, where you'll explore the mesmerizing crystal blue caverns carved naturally by glacial forces. Witness the stunning interplay of light as it filters through the ice, creating an otherworldly glow that transforms the caves into a surreal, magical landscape. Led by experienced guides, you'll discover hidden chambers, shimmering ice formations, and the raw beauty of Iceland's frozen wilderness. Perfect for thrill-seekers and nature lovers alike, this is a once-in-a-lifetime experience that will leave you awe-inspired and craving more. Join us for a journey beneath the ice like no other!

Equipment list for the guests: Microspikes, helmet, headlamp (if needed)

Guide's equipment list:

- Stiff hiking boots
- Extra set of microspikes
- First Aid Kit: The kit would contain the required gear to stop bleeding and tend to minor injuries. This would include a blister kit. *There is also a first aid kit available in the car that can be used.

Preparation before the trip:

1-2 days prior to the trip, the management team / lead guide will be monitoring the weather and make any weather adjustments as necessary. The guide will receive their tour schedule the day previous and can confirm their schedule via the guide scheduling document. The guide will be in communication with their fellow guides, the lead guide, as well as other local guides operating in the cave to discuss the condition of the Ice Cave and any safety hazards that he/she should be aware of. If necessary, and if safety information is inconclusive, the guide will present this information to the lead guide or in the team chat so plans can be made taking this into account. The guide can also make any necessary changes on-the-spot to the tour if and when they feel it would be necessary.

Beginning of the Tour

Guide arrives at the meeting location 15-30 minutes early to welcome clients. Clients will be informed of the goal for the day and time frame in which we hope to accomplish the tour objectives. Guide will then drive the clients to the glacier parking lot.

During the Tour

Guide and clients walk to the terminus of the glacier via the rock path coming from the glacier parking area. Once arriving at the area which the clients will put on the microspikes, the guides will show the clients how to do so. The Guide will do a visual inspection and make sure the guests have their helmets on and the helmets are secure. The guide will also provide them the necessary tips for walking on the glacier. Upon arriving at the Ice Cave, the guide will remain aware for any parts of the cave that look unstable. If any parts look to be so, the guide will assess with his fellow guides the situation and take any appropriate steps to keep the clients safe. This could mean the guide would remove the obstacle with chopping axes available on site, divert the path so as to not be close to the hazard, or change the tour to a glacier hike instead. Also, in regard to keeping track of any objective hazards in the cave, the guides will present this information to the lead guide or in the guides chat so maintenance can be scheduled.

After the Tour

Guide will ensure they collect all gear and ask for verbal feedback from the client. Guide will ensure clients do not have any questions before they depart. Guide will log tour and inform manager of the outcome of tour and any feedback received from client.

Special Considerations

As with any Ice cave tour, there are inherent dangers with ice falling, etc. We will be monitoring, with the help of guides from other companies, the safety of the cave and do any necessary maintenance.

Rescue Plan / Contingency plan addendum

*The contents of this safety plan are reviewed by the guides once provided by the management team. In order to ensure compliance, the lead guide would provide any necessary feedback regarding the safety / contingency plan. If we can expect that a client has a specific need, we will then inform the guide prior to the tour so they can prepare correctly for the tour and adjust the time / distance / difficulty accordingly. Another component of the pre-trip organization would be to ensure the clients have used the restroom facilities. This is done by our guides prior to the trip due to the meeting point being next to the bathrooms in the glacier lagoon.

There also is a note in regards to winter conditions which would change the characteristics of risk on the glacier. We see things like slide lines and need to be aware of any moulin risk. We address this in 2 ways. First, we can provide crampons to clients to reduce any slide risk and second, we can provide guests with a handline that is fixed to the ice via v-threads.

If an incident occurs, the first method of extraction will be via guide assisting clients to the inner parking area. The second method would be with the assistance of other Ice Journey

guides on the glacier / or other guides from various companies. The third would be helicopter evacuation via communication with Search and Rescue.

Distance and times related to extraction

Distance from Cave/Terminus to inner parking - 2 km / 20 minutes walking

Distance from inner parking lot to road - 7 km / 30 minutes driving

Total time and distance for extraction to outer parking area where ambulance would arrive:

9km / 40-60 min

Contingency Plan

Ensure safety at the scene of an accident

1. In the event of an accident to passengers (Based off of the severity, circumstances, and location)

1. Gather an adequate understanding of the situation. This includes surroundings, more potential hazards, and immediate condition of the victim.
2. Take control of the situation. Immediately move other clients away from the hazard to a temporary safe area before proceeding.
3. If the incident is severe, call 112 with location and description. Severe incidents include not being able to evacuate the area with only your assistance and/or life threatening, time sensitive situations.
4. If you have access to the victim, immediately apply any first aid needed and/or cover the client with proper emergency clothing to prevent hypothermia.
5. Prepare for the arrival of a relief team. Inform other guides in the immediate area to come for assistance with victims and remaining clients.
6. Support the relief team in any way possible upon arrival.

When the injured have been transported away one can consider another.

- Report the incident to your supervisor (if not done already)
- Caring for passengers - Assess if your clients are psychologically able/wanting to continue the tour.
- Evaluate the continuation of the trip
- Make an incident report

- Make sure any police reports needed are taken care of.
- Resolve any reparations to clients after safely making it back to base camp.

EMERGENCY NUMBERS AND KEY PARTIES

Mike Reid (Lead Guide) 784-5979

Ryan Newburn (Manager of Operations) 767-0841

Emergency Services- 112

Vatnajökull National Park Services- 575-8400

2. If not an accident to passengers (self, etc.)

- Make sure you are secure and then your clients.
- Apply any first aid needed to self.
- Call 112 or radio for help if needed.
- Report the incident to your supervisor
- Caring for passengers - Assess if your clients are psychologically able/wanting to continue the tour.
- Evaluate the continuation of the trip. Assess if you are fit to safely guide the tour.
- Make an incident report

Risk assessment, actions and criteria - 3 Hour Ice Cave Tour

It is important to evaluate the likelihood and the seriousness of an accident to get the risk number. That is done by picking numbers from 1-3 (To get more information you pick the sheet Viðmið) then you will get the risk number. Red means that there is a risk involved and it needs a special action to reduce the probable ability. Yellow and Green means that the risk and the likelihood of risk is very low and basic training and common sense should low probability of accident.

Date	Tour/Service	Responsible	Project Manager
12.8.2024	3 Hour Ice Cave Tour	Ryan Newburn	Ryan Newburn

Risk	Description of Risk	Consequences	Preventative Action	Severity	Possibility	Risk #	Actions
Driving	Car Accident	Serious injury	Use safe defensive driving, go slow in bad conditions and make sure seatbelts worn	3	1	3	Yes
Driving	Car Breaks Down/Flat Tire	Delay	Regularly do maintenance on vehicle and check degradation of tires.	1	1	1	No
Exiting Vehicle	Fall while exiting	Fractured bone or minor injury	Open doors for clients and help any that need assistance out of vehicle.	2	1	2	No
To/From Car to	Fall on walking path	Fractured bone, hypothermia, or minor injury	Maintain the trails, assist clients when terrain is tricky, and make aware of dangers	2	1	2	No
Gear Up/Safety	Fall on uneven ground	Fractured bone, hypothermia, or minor injury	Position clients in safe area for gear up and assist if needed.	1	1	1	No
Glacier Hike	Fall on glacier	Fractured bone or minor injury	Go over safety speech and constantly monitor/correct/assist with walking technique	2	1	2	No
Glacier Hike	Fall in a crevasse/moulin	Serious injury or hypothermia	Go over the dangers of hazards on glacier, keep clients always behind you and safeguard with ropes when needed.	3	1	3	Yes
Glacier Hike	Fall on crampon	Cut or gash, minor injury, or serious injury	Show clients how to properly hold and utilise equipment. Keep them aware of the sharp ends of gear.	3	1	3	Yes
Glacier Hike	Rolling ankle while walking	Sprained or rolled ankle	Be aware of physical limitations of client or pre existing conditions. Watch for potential hazards & walk around	1	2	2	No
Children on Glacier	Unpredicted actions and limited focus	Serious injury	Keeping children next to you and assisting always watching. If needed tie a rope to yours and child’s harness.	3	1	3	Yes
Old/Out of Shape	Limited ability to move and/or fatigue	Strain or minor injury	Select easier routes, be aware of peoples limitations and have people struggling directly behind you for assistance	1	2	2	No
Ice Cave	Fall in Water	Hypothermia, or minor injury	Make clients constantly aware of inconspicuous deep rivers and holes filled with water	2	1	2	Yes
Ice Cave	Rockfall from above ice cave	Major injury	Maintain the roof of the ice cave regularly to clear rocks down from the top.	3	1	3	No
Ice Cave	Client enter/leaves through non safe area	Hypothermia, minor, and/or major injury	Make client aware of the safe entry/exit points and always keep an eye on everyone.	2	1	2	No
Ice Cave	Walking under unstable ice	Major injury or minor injury	Chop off any weak spots in the ice & rope off weak roofs of the cave. Watch everyone	3	1	3	Yes
Ice Cave	Cave closes due to collapse	Hypothermia and/or major injury	Keep people away from below the entrance to the cave and always assess integrity	3	1	3	No
Glacier Hike	Left behind or get lost from group	Hypothermia, minor, and/or major injury	Monitor all guests within your group, group control.	2	1	2	No

Seriousness	
1 - Small	Discomfort or minor injuries, scratches or scuffs
2 - Medium	Recurrent injuries, need for medical attention
3 - High	Danger to life and serious and permanent injuries

Possibility	
1- Small	Low probability of an incident, rarely happens
2 - Medium	Can happen but not often
3 - High	High probability of an incident, happens often

Risk value	
Risk value 1-2	Risk acceptable - no need for action
Risk value 3-4	View risks
Risk value 5-9	Unacceptable - improvement needed

Actions
Record what action is taken, who is the developer, what is done, when and by whom.

Atvikaskýrsla

Ath. Best er að vista eyðublaðið á eigin tölvu áður en útfylling hefst.

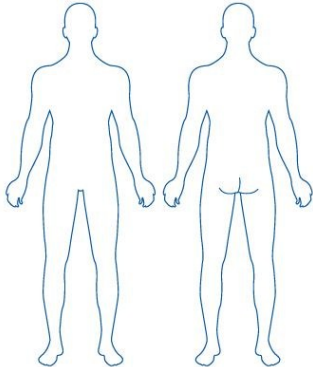
1. Almennar upplýsingar

Alvarleiki atviks: Slys _____	“Næstum því” slys _____	Annað: _____	
Tímasetning atviks: _____	Skráð af: _____	Stjórnandi ferðar: _____	Nafn ferðar: _____
Staðsetning atviks: _____	GPS hnit: N _____	og V _____	
Lýsing á atviki: 			
Til hvaða aðgerða greip stjórnandi: 			

2. Persónulegar upplýsingar

athugið að nota skal eitt eyðublað á hvern einstakling

Nafn farþega: _____	Sími: _____	Netfang: _____
Lýsing á áverka: 		
Merkið inn á teikninguna staðsetningu á áverkum		
Var viðkomandi fluttur á sjúkrahús. Já _____ Nei _____ Hafnað af viðskiptavini _____		
Fluttur með sjúkrabíl. Já _____ Nei _____ Fluttur hvernig _____		
Lögregla kölluð til. Já _____ Nei _____		
Aðrir viðbragðsaðilar, hverjir:		



3. Farþegar

Þurftu aðrir farþegar á áfallahjálp að halda? Já _____ Nei _____			
Var áfallahjálp boðin fram? Já _____ Nei _____ Farþegar afþökkuðu _____			
Aðrar ráðstafanir gerðar varðandi farþega:			
Sjónarvottar að atviki:			
Nafn: _____	Sími: _____	Netfang: _____	Þjóðerni: _____
Nafn: _____	Sími: _____	Netfang: _____	Þjóðerni: _____
Nafn: _____	Sími: _____	Netfang: _____	Þjóðerni: _____
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