University of Leeds Speleological Association

Alum Pot November 2025 Call Out Incident Report

Background

On Saturday 8th November 2025, during a club trip to Selside Hut, 6 cavers attempted a trip into Alum Pot. It was prerigged by other members of the club a few hours before. When the third caver descended, they became concerned that the rope was damaged and the fourth caver decided to alert Cave Rescue. It was established shortly after by trip members that there was no damage to the rope and Cave Rescue were stood down on arrival at the car park. The trip members were unprepared to adapt to complications and were fortunate that all left the cave without injury, beyond being very cold.

Ground rules

This report has been requested on the understanding that there is much to be learnt from near-misses and will focus on identifying learning points, rather than assigning blaming individuals. If used as a reference when preparing incident reports in the future, it should be noted that this is a succinct incident report, appropriate to the risk and impact of this specific incident.

The report may be published by the club and made public as an educational resource for the wider caving community. Information made public will be edited to protect the identity of the individuals involved.

It is acknowledged that the cavers involved may be upset by the incident and efforts be made to support them, including the counselling services offered by the Union.

This report details what happened, 7 potential points of failure or ‘hazards’ and 17 specific learning points in response to these. There are 5 recommendations prompted by a review of the incident for best practice, but did not have a bearing on this specific call out. There is a further list of things done well by the group in response to the situation they found themselves in and 4 agreed next steps to prevent near misses like this in the future.

1 Outline of what happened

Location: Alum Pot, South East route
Details of which can be found here: https://cncc.org.uk/cave/alum-pot

Date: Saturday 8th November 2025
Time: Approximately 12:30pm

The incident is reported briefly by Cave Rescue Organisation here: https://cro.org.uk/incident-91-2025-november-8th-thu-14-12-hrs-alum-pot-selside-north-yorkshire/

1.1 The trip and trip members were identified on Friday night. The South East route was prerigged, on Saturday morning, by an experienced team not on this trip. There has been no criticism made of the rigging. Caver 2 gave a safety talk about their medical condition and advised all trip members on what to do if they became unwell.

1.2 On Saturday, the group arrived at the pitch, and Caver 1 and Caver 2 descended to the rendezvous point at The Bridge.

1.3 Caver 3 started to descend, and felt a jolt on the rope and stopped after a few meters. They saw some 'snarled' bits hanging off the rope above them, but decided to continue their descent.

1.4 Once at the bottom, attempts were made to communicate to the cavers on the surface but communication proved difficult due to the nature of the cave.

1.5 Caver 5 started to descend but Caver 3 weighted the last rope for around 30 minutes to prevent Caver 5 from descending, unaware of the suspected problem.

1.6 Caver 5 returned to the surface and was replaced by the more experienced Caver 4.

1.7 Caver 4 descended to the rebelay to inspect the rope. Before Caver 4 reached the 'frayed' section, Caver 2 shouted to get cave rescue, which was echoed by Caver 4 to Caver 5 and Caver 6.

1.8 Caver 6 returned to the hut and successfully alerted cave rescue.

1.9 Caver 4 returned to the surface, as did Caver 3 who inspected the rope on their way up. Caver 3 took Caver 2's hand jammer in case they needed to pass a frayed section of rope in case it was not possible to tie a knot pass. Caver 3 saw no damage to the rope: it is suspected that the jolt was caused by a dead leaf

on the rope. They pulled up the length of the rope to inspect at the rebelay and saw no damage.

1.10 Caver 4 returned to the hut to cancel the call out. 3 minutes later, the first responders from the Cave Rescue Organisation arrived.

1.11 Caver 5 descended to the Bridge with Caver 2's hand jammer and medical equipment. They explained the situation and Caver 5, Caver 2 and Caver 1 were able to ascend without problem. For Caver 1 and 2, the time under ground was around 4 hours.

2 Hazards

The following hazards have been identified and learning points discussed with the trip members and committee. In incidents such as these, hazards can compound, resulting in worse outcomes than in this case. No particular emphasis is put on any particular hazard and therefore they are suggestive, non-exhaustive and in chronological order.

Hazard 1: The first person down the pitch should have taken a group shelter or personal survival gear.

Learning point 1: This stands for all trips, but particularly in Alum Pot, where the rendezvous point for this trip is in spray and wind from the waterfall. In poor weather, a second group shelter can be used at the top of the pitches, as it's understood that the experience of the group and nature of the rigging means that the pitches will take a long time. In this instance, a bag with survival gear had been packed, and then unpacked by another club member. The group did not rectify this before their trip.

Hazard 2: Caver 1 and Caver 2 descended without inspecting the rope, due in part, to not being trained on this, and a sense of security because the rope was pre-rigged.

Learning point 2: All trip members should inspect all rigging gear before use, and this should be considered particularly when relying on in-situ ropes.

Learning point 3: All trip members should be aware of hazards to rope such as dead leaves, mud, loose boulders or exposed rock and remove the hazard before passing it.

Learning point 4: Following a training syllabus or checklist. This already exists in ULSA, but has not been used. Similar formats are presented in Caving Technical Guide, which should also be routinely available at training sessions for trainers to use for reference and as a visual aid when teaching.

Hazard 3: Failure to communicate from the bottom of the pitch to the top.

Learning point 5: All members should carry personal emergency equipment which would include a whistle. This may also include a watch, back-up light, emergency blanket. Following this incident, trip members learnt that there are whistles in each first aid kit, but it is better practice for each cavers to wear a whistle.

Learning point 6: All members should be trained in agreed whistle signals. In the absolute absence of whistles, the agreed signals can be shouted/screeched so even limited messages can be heard over the sound of the waterfall. A widely used system is S U D: 1 blow for Stop, 2 for Up, 3 for Down.

Learning point 7: training all members about communication in caves. Particularly speaking in short, clear sentences. E.g. "Question: Can I come up?"

Hazard 4: No risk assessment was undertaken before Caver 4 descended. This meant that before Caver 4 descended the rope, they identified cave rescue as the only resource available and left instructions on this. Therefore, when confronted with a problem, they gave the instruction to call cave rescue.

Learning point 8: Dynamic risk assessments should identify the greatest risks, mitigation options and all of the resources available to the team. One resource which is not identified would have been getting another rope from the hut, and rigging a second line. This would have allowed the first rope to be inspected or to allow another route for the cavers.

Learning point 9: It's not always sensible to take a rescue rope, although this should be considered particularly when relying on in-situ ropes. The trip members presumed there were not any spare ropes at the hut due to many other vertical trips running that weekend, which influenced their reluctance to go and check instead of calling cave rescue.

Learning point 10: Caver 4 gave the instruction to call cave rescue before ascending the rope. If they had returned to the surface, the decision could have

been discussed and made as a group. In this scenario, it was not critical to urgently call rescue.

Hazard 5: Caver 3 went down and back up the rope that they thought was frayed, without any inspection.

Learning point 11: This appears to be the most hazardous decision of the day, although it is acknowledged that the growing frustration around communication challenges and growing risk from exposure contributed to this decision. Ropes should be inspected on the way down by every member of the trip. Caver 4 would have been better placed to descend the rope slowly, pulling the rope up to inspect as they went.

Learning point 12: Caver 2 and Caver 1 were uncomfortable with Caver 3's decision to ascend, but they ascended anyway. Decisions should be made as a team.

Hazard 6: Caver 2's medical equipment was not carried by Caver 2.

Learning point 13: Specific medical equipment needs to travel with the caver who needs it, particularly in vertical caves. Ideally this would in a dedicated personal tackle sack.

Learning point 14: In the report, one caver suggested the medical equipment should be carried before or with the person that needs it. Ideally it will be with the person that needs it, as groups can be separated.

Learning point 15: When the situation escalated and the team called cave rescue, the groups should have risk assessed and tried to mitigate any hazards that they could. This would have included making efforts to take a second rope to Alum, or lowering down Caver 2's medical equipment, group shelter, warm clothes etc.

Hazard 7: Caver 3 took Caver 2's hand jammer in case they needed to pass a frayed section of rope.

Learning point 16: Taking the equipment from Caver 2 left them more vulnerable and could have been avoided if emergency jammers were carried or trip members were familiar with tying an Alpine Butterfly knot in the rope to clip a cowstail into.

Learning point 17: Rescue gear should have been carried since there were inexperienced cavers on the trip. A second rope and pulley jammer could have been used if a novice became strung up, tired or confused at the rebelay, which is a common occurrence for trips of this nature.

3 Other recommendations

Recommendation 1: Explain the choice of cave and associated risks to all members of the trip. Not every trip member understood why this trip had been chosen and what technical skills were needed. There is a generic risk assessment for all caves which should be shared with all trip members prior to undertaking a trip. For a cave such as Alum with long pitches, the requirements are higher than basic SRT, including hanging rebelays and knot passes. Documents such as Caving Without Tears can be shared on purchase of trip tickets to help cavers prepare.

Recommendation 2: There were 6 trip members, which is significant for this route and the experience level of the group. Groups of 4 would have made for a more comfortable trip.

Recommendation 3: One trip member reflected that the group should have clearly defined roles, to make for better decision making. As a student club, it's recognised that most trips will compromise members of differing experience and competence. However, decisions should be made collectively, where the risks are understood and accepted by all trip members.

Recommendation 4: The committee should identify and use training resources that would complement development of new cavers. This includes resources developed by ULSA members and available on the ULSA website: Caving Without Tears, Rigging Without Epics, the Caving kit list.

Recommendation 5: Following the ratios for trainers : learners at the EDGE training sessions.

4 Things done well

4.1 The trip and trip members were chosen the night before, taking into consideration the familiarity of the members with the route and within their comfort level.

4.2 Caver 3 stayed on the rope to stop others using it until they could think about the situation.

4.3 Attempts were made to inspect the rope from below by Caver 1, Caver 2 and Caver 3.

4.4 Novel use of signalling ‘Stop’ with arms in an ‘X’ by Caver 2.

4.5 Caver 6 had a good understanding of the call out procedure and successfully alerted cave rescue

4.6 This reflection and review process was initiated. Oftentimes, incidents without injury are overlooked and the opportunity to prevent future incidents is lost.

4.7 Trip members recognised in the report that fear and exposure contributed to confusion and poor decision making.

4.8 The group identified most of the learning points suggested in this report.

5 Agreed next steps

Next step 1: review current training provision for ULSA members

This incident report has identified a shift in the training regime from before the Covid-19 pandemic. The trip members called for a return to a more thorough training syllabus and recognised that each caver’s competence is further behind that expected for this point in the academic year. However, the club is struggling with a lack of experienced cavers who can attend training sessions. Often, training sessions occur with only two trainers to 20 novices.

Opportunities:

1. Put a call out for experienced, local cavers to attend training sessions
2. Provide an alternative time and location for training e.g., a specific training weekend to bring current club members up to a level they would like to be at.
3. Make use of experienced club members who are more geographically-dispersed by running online theory sessions
4. In the two training sessions leading to a weekend trip, theory sessions should focus on risks specific to the caving region. This should consider

differences in access, approaches to cave entrances, mine-etiquette, bad air, navigation and preparing for warmer caves.

Specific training requests:

Specifically to this report, the group have requested training on:

- Communicating in caves
- Knot passes - when they are needed, how to treat damaged rope, tying a knot below you as an additional point of attachment
- What to do when things go wrong - dynamic risk assessments, when to call cave rescue versus self rescue.
- Suspension trauma, hauling rigs and mid rope rescues
- Reviewing previous incident reports

Next step 2: review provision of equipment on trips and have a checklist (caving-region specific) on the chapel door.

As this incident fell on a popular weekend, and shortly after the retirement of some club rope, there were insufficient hauling kits, ropes and tackle sacks for all the trips running. In these instances, alternative trips should be considered. Additionally, laminated topos and descriptions were left in the chapel.

Next Step 3: Write specific risk assessments for cavers with medical conditions or additional requirements

Concern about Caver 2's medical condition and separation from their medical equipment added to the stress of this incident and in no small part, influenced decision making. Cavers with additional requirements and the club should ensure the provision of dedicated personal tackle sacks, dry bags, daren drums for carrying medical equipment, to be carried by the caver. This should be identified in the person-specific risk assessment.

Next Step 4: Review provision of personal emergency equipment

Club to look at purchasing emergency blankets to be carried in every club oversuit and whistles to be carried by every caver. The club should also ask members to carry backup lights or spare batteries on every trip.

6 Acknowledgements

It's recognised that this experience was stressful for all involved. All trip members tried their best to reduce risk and find a safe outcome for the day.

Afterwards, all trip members have engaged with this reflection process with maturity and responsibility. The ability of the group to support each other during and importantly after, the incident embodies the spirit of caving.

Most of the learning points suggested in this report were identified by the trip members and their collective eagerness to learn from this event is commendable.

7 Appendices

7.1 Alum Pot Route Description from CNCC website

[Accessed 26 January 2026, updated February 2025]

Alum Pot

Long Churn Caves via Dolly Tubs provides one route into Alum Pot, however there are two SRT routes direct from the surface:

Please only enter the Alum Pot enclosure using the stile provided (which, on first approach, is found around the back). Do not climb the wall, and under no circumstances must anyone in your group throw anything down Alum Pot, as other cavers may be down there! Be aware that the trees around Alum Pot have suffered from Ash Dieback and so take care choosing any tree-related belays and watch out for dead branches.

The North West Route of Alum Pot can be descended in moderately damp weather, although conditions at the bottom will be miserable and so this is not recommended. The South East Route is closer to the waterfall so needs drier conditions. The bottom of Alum Pot is a draughty, cold place to loiter, so consider this carefully if performing an exchange trip or caving in a larger/slower group, particularly during winter.

North West Route

The entire shaft is descended with one straight hang, commencing at the north-west (NW) end (just 10m from the stile). Two trees should be used for belay purposes for an intimidating descent over the edge. A Y-hang rebelay is encountered almost immediately, followed by another only several metres below. From there it is a direct and highly scenic 60m drop to the bottom of Alum Pot.

South East Route

Belay the rope to a tree on the south-east (SE) side of the shaft (this is the side you approached from on the way up the hill). Then traverse along the edge to another tree overhanging the shaft which is the take-off point. A Y-hang several metres down allows a clear descent of 30m to a shelf along the side of the shaft. From here, the descent may be continued by a couple of options from immediately adjacent anchors as shown on the topo, however, these require very low water conditions as they descend very close to the main waterfall falling from the surface.

The most popular choice is to traverse along the ledge to reach the bottom of a huge sloping slab (The Bridge), which is where the route into Alum Pot from Long Churn/Dolly Tubs enters. Anchors underneath the far side of The Bridge allow a drier descent to the bottom of Alum Pot (deviation essential about 4m down), landing only a few metres from where the North West Route lands.

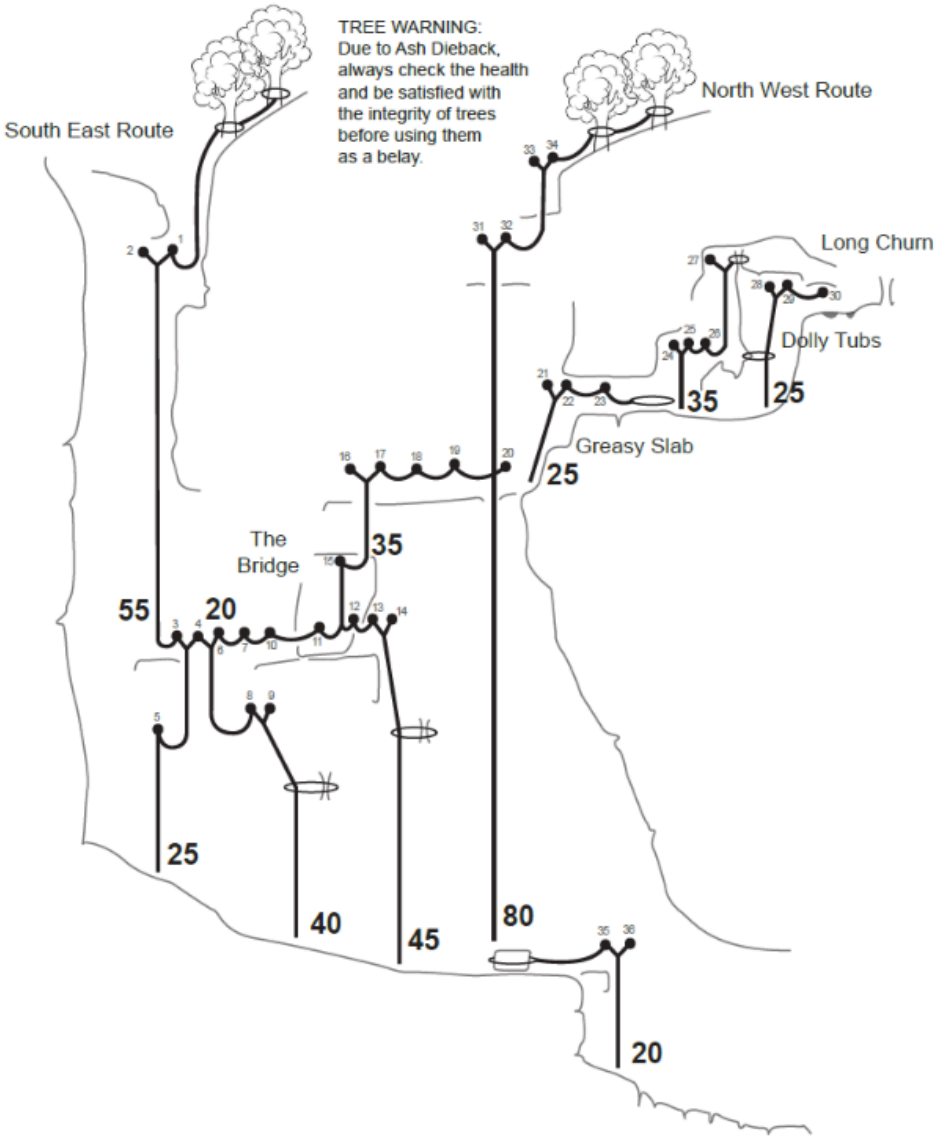
Onward from bottom of Alum Pot to the sump

Where all three routes (SE, NW and Dolly Tubs) converge, a short pitch can be rigged from anchors on the right. This drops into a large passage which can be followed downstream. On the left, several metres before you reach a final 4m waterfall (which can be climbed in low water, although this is not recommended), there is a route through blocks into a narrow descending passage which bypasses the waterfall.

The water of Diccan Pot crashes down and flows straight down into a sump. This is a draughty and impressive place!

7.2 Alum Pot Rigging Topo from CNCC website

[Accessed 26 January 2026, Version: 01/2023]



7.3 Cave Rescue Organisation public report of the incident
[Accessed 26 January 2026]

INCIDENT 91/2025. NOVEMBER 8th THU. 14.12 hrs ALUM POT, SELSIDE, NORTH YORKSHIRE.

November 9, 2025 CRO_DC_MH

The team were called by North Yorkshire Police for a party of cavers at the bottom of the 90m shaft of Alum Pot due to concerns over a damaged rope. As the team were assembling at the RV point, they received a further call confirming that the party were safe having resolved the issue with the rope.

Volunteer hours: 10

7.4 Caver 1's trip report

I went down the 80m pitch first it was long, then Caver 2 came down. Then Caver 3 and they thought they saw a tear in the rope so they rushed down. Then a bit of panic as they came down. We didn't let anyone else come down until Caver 4 came half way down and we stopped him before were we saw the tear they misheard our shouting and went up to call mounting rescue.
We then waited and waited and... waited until Caver 3 decided to brave it and go back up.

Then me and Caver 2 waited for AGES and finally they realised the rope was fine and sent down Caver 5 and then I went up and left with the bag.

<u>Hazards</u>

- Shouting things that can be miscommunicated and going up potential hazards ropes.

<u>Thing learnt</u>

- Don't shout complicated things to people who can't hear.

7.5 Caver 2's trip report

Caver 1 descended the rope first, followed by me. Caver 3 came down third. When they was approximately 20 m from the bottom, they reported hearing a "twang" from the rope and noticed what appeared to be a frayed section.

We immediately attempted to shout up the 90 m pitch to warn the others not to descend. I called for help, but Caver 3 told me to stop after a while communication was difficult. When I shouted for help that included shouting for cave rescue to try get Caver 4 and Caver 6s and Caver 5s attention

To prevent Caver 5 from descending, Caver 3 placed their weight on the rope at the top while Caver 1 and I tried to visually inspect the suspected frayed section from below. However, neither of us could see any visible damage. Once Caver 5 was off the rope, Caver 3 also tried to inspect it from above by swinging the rope into the light, but they still couldn't identify the frayed area.

Approximately 1 hour and 30 minutes later, Caver 4 began to descend the rope. When they reached roughly the same point (about 20 m from the bottom), I shouted for him to stop and signalled an "X" with my arms above my head. Communication remained very poor due to distance and water noise, so Caver 4 ascended back up.

Because my medical equipment and the group shelter were at the top, Caver 3 decided to ascend the rope to recheck the area and confirm its condition. Before they went up, they took my hand hammer to hop over the suspected frayed section safely while ascending to the top to communicate with the others.

After some time, Caver 1 and I saw the rope went up the cave and back come down I assume for Caver 3 and Caver 4 to inspect

We waited until Caver 5, who had the group shelter and my medical supplies, descended and informed us that the rope was in fact safe. We then ascended back up.

Once we were all back at the top, we learned that cave rescue had been called but subsequently stood down. The rope was later confirmed to be undamaged the suspected "fray" was actually caused by a dead leaf caught in the rope.

<u>Hazards / Risks Identified</u>

- The incident presented several risks, beginning with the suspected rope damage that created the possibility of catastrophic failure on a 90-metre pitch. Poor communication due to distance and water noise made it difficult to warn team members not to descend, increasing the chance of someone unknowingly entering a hazardous situation.
- Medical and exposure risks were also present because essential medical equipment and the group shelter were at the top while some team members were waiting at the bottom.

- Despite uncertainty about the rope's condition, multiple ascents and descents occurred, which would have been dangerous had the rope actually been compromised. Limited visibility meant that inspections of the rope were unreliable, prolonging confusion and delaying safe decision-making.

Learning Points

- From this incident, we learned that we need clearer ways to confirm rope safety and better communication on long, noisy pitches, especially by using agreed whistle codes instead of trying to shout.
- We also realised the importance of making essential medical items accessible at all times, and that I should have been responsible for keeping my medical supplies with me rather than leaving them at the top. We learned not to load a rope until we are certain it is safe, and to avoid unnecessary ascents or descents when there is doubt.
- The situation also showed the value of proper equipment checks, good lighting for inspections, and having clear roles so decisions can be made calmly and confidently.
- Overall, better preparation and communication would have reduced the stress and risk during this incident.

7.6 Caver 3's trip report

Before the weekend trip, I had expressed the desire to do alum pot at some point over the weekend as I had been told on multiple occasions that it is a classic trip. On Friday night, I found out that Adam Baldock was intending to rig the main hang early in the morning as they had to leave during the day. I jumped at the opportunity. I believe Arthur had already arranged with Caver 2, Caver 4 and Caver 1 to be part of the Alum pot group. On Saturday morning, I found out that Caver 6 and Caver 5 would be joining us, as Caver 6 has not had the opportunity to do SRT for a few months and Caver 5 was the most keen and capable (in regards to SRT) fresher intending on caving that day.

Once we'd had breakfast and gotten all our kit in order, we set off for the short walk to Alum pot. We quickly realized that we did not have a description and scrambled to find signal to download one, as I intended to take my phone underground with me anyway. Once we'd oriented ourselves, we again set off.

On the way, we met another group of cavers who were going down long churns and had a brief chat, during which they indicated that a description was not necessary for the main hang, as it is a very simple setup. They then vaguely indicated where we would find it easiest to get over the drystone wall next to Adam's rigging.

Once we'd gathered our bearings and assessed the setup, we arranged our order of descent. Caver 1 would go first, followed by Caver 2, me, Caver 5, Caver 4 and finally Caver 6. This was to ensure that Caver 2 and Caver 5, who were less experienced, would have somebody well-versed in SRT able to help on both sides if necessary.

I believe Caver 4 was going to descend with the tackle sack, containing our first aid kit, Caver 2's meds and a group shelter. Caver 6 took my phone as they had a small crab-mounted speaker, with which they were going to play music during their descent. Caver 6 took pictures from various angles as Caver 1, Caver 2 and I each rigged and tested our descenders, approached the rebelay and began the descent.

Caver 1 descended without incident, followed by Caver 2, who got strung up at the rebelay as she'd left too much slack above their descender, but was able to rectify the situation with a little guidance. During this, Caver 4 and I were redemonstrating to Caver 5 and Caver 6 the process for doing a rebelay. Once I heard "rope free", I completed the rebelay and began my descent.

After the first 20 meters or so, I noticed other club members watching me through the Alum pot window. For a laugh, I put a soft-lock on and leant back until I was partially upside down and waved at them with my free hand. I then righted myself, took off the soft-lock and continued my descent at a modest rate, wanting to avoid heating my descender too much.

When I was, as far as I could tell, approximately 40 meters from the bottom, my descender made a staccato noise and vibrated considerably. This was alarming to me, so I stopped a few meters down from where it happened. I looked up at the rope and saw snarled bits of something stringing off the rope. I did not have a very clear view as, at this point, I was well within the stream of droplets coming from the top of Alum pot and could not look up without it streaming into my eyes.

Regardless, my immediate thought was that the rope was damaged and that the noise/vibration had come from my descender passing over this damaged section. I did not wait to get a closer look and started descending at a controlled, but rapid pace as I was still well above the ground and concerned about the possibility of the rope failing.

When I reached the bottom of the pitch, I stopped just above the ground, gathering my bearings. I called Caver 1 and Caver 2 over, as they were sitting on the incline a few meters away. As they walked over, either Caver 2 or Caver 1, I can't quite remember, shouted "rope free". I assume, thinking that I had forgotten to. I do not think Caver 5, who was waiting above the rebelay, heard

this however.

I told them to stop and explained what I'd seen, including the fact that I thought the sheath of the rope was damaged/coming apart. I decided to stay on the rope, weighting it to ensure that nobody at the top of the pitch could rig their descender if they'd heard rope free or assumed they could start descending.

Caver 1, Caver 2 and I then began to discuss options. I expressed that I wasn't happy to send anybody else up or down the rope. The others agreed, given what I'd explained. Caver 1 went to a better vantage point in an attempt to spot a damaged section, but couldn't see anything conclusive with the low visibility. I decided to ascend the rope around 15 meters to get a better view and thought I could see something dark on the rope, but nothing clear.

At this point, the rest of the group at the surface were confused and had realized that something was wrong. The three of us continued discussing our options and concluded that ideally, the surface group would rig another route down or haul the rope up to inspect it. At some point during this discussion, there was some confusion and Caver 2 ended up shouting "help" as well as "broken rope" in an attempt to get the surface group's attention. Some time went by, with me growing more concerned that cave rescue would be called unnecessarily. I also realized that, concerningly, Caver 2 did not have their medication with them, although we did have sugary snacks in case they had a medical incident.

With the surface group obviously unable to hear us, nor us them, we decided to allow Caver 4 to descend. We signaled him to stop well above the point at which I suspected damage. An exchange took place, with us attempting to ask him to haul the rope and inspect it or rig another one, but nothing got across. We heard him shout to ask if we needed cave rescue and said no. We then managed to tell him to ascend the rope after some more fruitless shouting.

We went and sat under the overhanging rock as it was getting cold standing under the water flow, waiting to see if the rope would be hauled. I kept debating ascending the rope, with the others discouraging me from doing so, but decided to take the risk, wanting to avoid the situation snowballing. I took Caver 2's hand jammer and started climbing, planning to use the extra jammer to bypass any section of damaged sheath I might encounter. I did not find any damaged section and rushed the last meters.

Caver 4 and Caver 5 were waiting at the surface, obviously quite confused and wanting an explanation, but patient while I got past the rebelay. After explaining the situation, we decided that I would haul the rope to inspect it again, as if it was fine, Caver 5 was still keen to do the trip and take the tackle sack to Caver 2. I asked where Caver 6 was and Caver 4 said he'd gone back to the hut. They then grew concerned and rushed off after him, explaining that he'd told Caver 6

to call cave rescue if they heard Caver 4 shout “cave rescue” while they were down talking to us. Obviously Caver 4 had shouted to ask if we needed cave rescue, which sent Caver 6 running.

While Caver 4 went to cancel the call, I went back to the rebelay and inspected the rope, finding no issues, much to my relief and embarrassment. I gave Caver 5 the tackle sack, now containing Caver 2’s jammer, spotted them during the rebelay and sent them on their way. While waiting for the others, Caver 4 and Caver 6 returned and explained that they’d had to talk down a considerable cave-rescue team.

As the others returned, uneventfully, various other cavers came and spoke to us. We decided that I’d derig the pitch. The others left while I waited for Caver 5. They ascended last and watched while I derigged and hauled the rope up, concluding the trip.

7.7 Caver 4’s trip report

Alum Pot was chosen for this trip due to the large pitch at the entrance, which provided less experienced members with the opportunity to practice their technique on a longer descent. It was also selected as a relatively straightforward system, suitable for me to lead after a period away from regular caving.

The caving team was finalized the night before. I was comfortable leading the trip on the condition that no complete beginners would attend, as I anticipated being slightly rusty with route finding and wanted to avoid slowing down new members’ experience.

Caver 3 was added to the trip late the night before when the printed cave descriptions were unavailable at the hut. Their familiarity with the Alum Pot system provided an additional safeguard for navigation underground. I also had a phone with digital route descriptions stored in a waterproof container as a backup.

The first caver entered the cave at approximately 12:30 PM. Once Caver 2 and Caver 1 reached the bottom of the pitch, Caver 3 began their descent. During their descent, Caver 3 reported feeling a jolt on the rope. When they looked up, they noticed what appeared to be damage to the rope. they attempted to shout up to communicate this, but those at the top (including myself) were unable to hear them clearly.

Recognizing that there might be a hazard but uncertain of the severity, I decided to descend next. Before doing so, I instructed Caver 5, who remained at the top, on rope-free callouts and told them that if I shouted "Cave Rescue," they should immediately go and call for assistance.

While descending, I saw Caver 3 at the bottom signaling for me to stop with an "X" gesture. Unsure of the issue, I then heard Caver 2 shouting "Help" and "Cave Rescue." I believed there might be further rope damage below or that an injury had occurred.

I immediately instructed the surface team to contact cave rescue and begin the rescue process. I then got off the rope and called "rope free" to Caver 3. Caver 3 began ascending and, upon meeting me near the top, explained that the rope was not actually damaged. They had ascended to ensure everyone's safety and clarify the situation. They also confirmed that no one at the bottom was hurt.

I ran to the hut to find Caver 6 and cancel the cave rescue call. We contacted the emergency services again to explain that the situation was under control and that no injuries had occurred. The Cave Rescue Organization arrived approximately three minutes later. I provided them with a full account of events, gave my details, and returned with Caver 6 to the cave entrance to confirm that all cavers were safely exiting the system.

Hazards / Risks Identified

- The apparent rope damage created significant concern. If the rope had indeed been damaged, it could have resulted in a serious fall or injury.
- Caver 2's medical kit was left at the surface. If the rescue had been prolonged, this could have led to medical complications underground.
- Communication between surface and underground teams proved ineffective. The cave's acoustics and distance made shouting unreliable, leading to confusion and delayed understanding of the situation. The lack of a clear communication system led to unnecessary escalation and confusion, contributing to the decision to call rescue prematurely.

Learning Points

- Introduce a clear and standardized communication protocol for underground emergencies.
- Implement a whistle-based communication system with agreed commands such as stop, danger, help, and rope free to improve clarity and reduce confusion during incidents.

- Provide additional training for all club members on cave communication and emergency response to ensure calm, coordinated action in future situations.
- Reinforce the need for thorough pre-trip and post-descent rope inspections to detect potential damage early.
- Ensure that members who require medical equipment, carry it with them underground in case of delays or emergencies

7.8 Caver 5's trip report

Prior to us arriving, an experienced club member had rigged the ropes going down the main shaft of Alum pot.

Caver 1 went down first, followed by Caver 2 and Caver 3. I was supposed to follow Caver 3 and I had moved to the point of the rebelay, waiting for Caver 3 to reach the bottom and for the rope to be free. They were staying on the rope while sitting on the cave floor so me and Caver 4 tried shouting down asking for the rope to be freed.

They also shouted up but it was really hard to make out what they were saying and after a while of trying to communicate Caver 4 decided to go down and see what was going on. They had previously told me that if they shouted cave rescue, to go and call 999.

He went down partway and was told there was an issue with the rope, cave rescue was shouted. I shouted back to confirm that cave rescue was being said and thought I got an affirmative response so Caver 6 went back to the hut to call them.

Caver 4 then came up and was followed by Caver 3 who came up after them. Caver 3 then brought the rope up and checked it to ensure there wasn't any fraying/issue with it. Caver 4 then went back to the hut to cancel cave rescue. I then went down with Caver 2's medical equipment and to let them know the rope was fine. We then all headed up.

<u>Potential hazards/risks</u>

- Caver 3 going back up the rope to check it could have been dangerous if the rope had been frayed, and could potentially have led to them falling about 30m - the point where they initially thought the fraying was.
- Caver 2 also didn't have their medical equipment at the bottom with them as one of the later people was going to take it down, which put them at risk and could have posed a larger risk the longer they were down there for.

Learning points

- Medical equipment should have been taken down either with or before the person who needed it.
- The main issue was with communication, attempting to shout sentences and multiple different things made it hard to understand what was going on. In future, shorter, simple, repeated messages would be more conducive to successful communication of the issue.

7.9 Caver 6's trip report

My group, consisting of Caver 1, Caver 2, Caver 3, Caver 4, Caver 5 and I had arrived at Alum Pot, which had a rope rigged already by an experienced club member early in the morning between the time period of 7am-9am.

Caver 1 descended first without an issue. Caver 2 descended without an issue. Caver 3 had descended to the second rebelay before Caver 5 had started descending the first rebelay. Caver 5 gets to the second rebelay and waits for Caver 3 to shout 'rope free.'

Caver 4 waits at the first rebelay for Caver 5 to move onto the third and final descent. Caver 4 shouts 'is rope free, yes or no' to the cavers at the bottom and cannot understand what they are saying. Caver 5 and Caver 4 swap over at the first rebelay and Caver 4 begins to descend to the second rebelay to communicate. I cannot hear the conversation between Caver 4 and the cavers below.

I converse with Caver 5 and ask them to listen closely. I hear the words 'fraying rope' 'cave rescue' and 'don't go down.' I shout 'do you want me to get cave rescue' and Caver 5 relays that they said 'yes.' I run to Selside Hut and call 999 and ask for cave rescue. I give information '4 cavers are at the bottom of a 80meter pitch with no way up due to fraying rope. One of the cavers has a medical condition and the other is a new caver. Medication is at the surface.'

5 minutes before cave rescue arrives, Caver 4 runs back to the hut and tells to call off the cave rescue. I call cave rescue to cancel the rescue but they have already arrived. Caver 4 explains to cave rescue what happened and cave rescue leaves.

Potential Hazards and Risks Identified

- A potential hazard would have been that Caver 2's medication was in the tackle sack on the surface. I had been carrying it but I left it with Caver 5 while I left to call cave rescue. The risk with this is that if something were to happen to Caver 2, we would not have had a way to give them access to their medication.
- Miscommunication can lead to escalation. Although it was the right thing to do, it shows that confusion and communicating in loud environments with sentences can lead to unnecessary emergency response.
- Even though it was a false alarm, a potentially 'frayed' or 'desheathed' rope is a serious hazard, especially with SRT. It would have been a lethal injury, had it actually been the case and not noticed, given it is an 80 metre drop.
- Leaving a new and inexperienced caver at the surface with the tackle sack, while I went to get help, may be a hazard as they would not have the understanding of what to do. Since it was cold, I had to be as quick as possible as the group shelter was at the surface. This meant that all the cavers involved were exposed to the cold and wet environment of Alum Pot.

<u>Learning Points</u>

- A learning point is having a good understanding that long shafts make it very difficult to communicate. In the future, it would be ideal to invest in whistles with codes.
- Another is that it is better to be safe than sorry. Even though it was a false alarm, I believe it was the right thing to do and to teach more cavers when to get rescue.
- Finally, a good learning point is to do thorough equipment checks and double check with people who rig the ropes before using it.