

Health & Safety



Excavation and Trench Safety

When a trench or other excavation is made in soil, gravity and residual forces in the ground work to restore the soil to a more stable configuration. If those forces are greater than those holding the trench or excavation walls in place, a cave-in occurs. There are a number of factors which determine the stability of a given excavation wall. It is beyond the scope of this newsletter to fully describe soil mechanics behavior. However, when the soil is sloped or braced appropriately, it will remain safely stable. First, a couple of definitions:

Trench (Trench Excavation): A narrow excavation made below the surface of the ground. In general, the depth is greater than the width, but the width of the trench (measured at the bottom) is not greater than 15 feet according to OSHA's definition.

Excavation: Any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

1. OSHA requires employers to identify an excavation's hazards and create a safety plan to protect workers. The safety plan does not need to be site specific and can be generic. Ardaman has JSAs and a checklist for entering an excavation. (Contact your H&S Coordinator)

2. Safety precautions are required before work begins in an excavation. A "competent" person (defined by OSHA) inspects the excavation before any workers enter. A competent person is one with the experience to identify hazards, establish precautions, and the authority to take necessary corrective measures. When working on job sites where a general contractor is in charge of site safety, it is the responsibility of the contractor to have a competent person overseeing excavation safety.

3. Most excavations must have systems to protect against cave-ins. Examples of such systems are sloping the sides, benching the sides with steps, installing bracing systems, or using trench boxes. Excavations deeper than 4 feet must be inspected by a competent person. For excavations between 4 and 5 feet in depth, a competent person must decide if a system is needed. For excavations deeper than 5 feet, a protection system must be in place. (The type of protection system chosen depends on soil types and other factors.) Do not enter an unprotected trench! Trenches 5 feet (1.5 meters) deep or greater require a protective system unless the excavation is made entirely in stable rock. Trenches 20 feet (6.1 meters) deep or greater require that the protective system be designed by a registered professional engineer or be based on tabulated data prepared and/ or approved by a registered professional engineer.

4. Excavation planning requires many other protective measures. Examples of such planning includes coordinating with utilities to protect workers and underground utility lines, and providing safe ramps, stairways, and/or ladders for workers to use to get in and out of an excavation. Ladders must be placed within 25 feet of the worker, extend 3 feet above the surface and must be secured. Also, using barricades, stop logs, or other warnings if there is a risk that mobile equipment might reach the edge of the excavation.

When required, testing should be performed of the excavation's atmosphere for contaminants and oxygen when the excavation is deeper than 4 feet. Where oxygen deficiency or a hazardous atmosphere exists or could reasonably be expected to exist, such as in excavations in landfill areas or excavations in areas where hazardous substances are present nearby, the atmosphere in the excavation should be tested before employees enter excavations greater than 4 feet in depth. Engineering controls can be used such as additional ventilation to ensure there is adequate oxygen in the excavation. When controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, testing must be conducted as often as necessary to verify that the atmosphere remains safe. (Continued on page 2)

April 3, 2026

Ardaman & Associates, Inc.
A Tetra Tech Company



Inside this issue

Excavations Continued	2
FL & LA Soil Types	2
Soil Classification	3
Pay attention while driving	3
811 Call before you dig	4
The walls will fail	4
Rationalizing unsafe choices	4
Ardaman Update	5
Quiz	6

Safety Contact Information

Brett Buxbaum H&S Director

Thais Morales H&S Officer

Brett Cell: (407) 509-3085

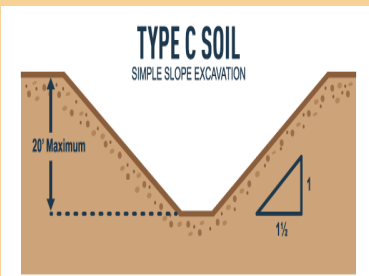
Thais Cell: (407) 757-6640

BBuxbaum@ardaman.com

TMorales@ardaman.com

FL, LA, & TX Soil Types

Florida, Texas, and Louisiana have mostly Type C soil material, which requires a slope no steeper than 1.5 H:1 V. For every 1.5 feet horizontal, the vertical should drop no more than 1 foot down. Safe sloping criteria are a function of the conditions, soil types, water content of materials, and water table. If not sure of the excavation safety, check with the competent person before entering the excavation. (Per Appendix B in 29 CFR 1926 OSHA Construction regarding sloping excavations)



OSHA Sloping Requirements

Soil Type	Slope	Angle (Degrees)
A	3/4H:1V	53°
B	1H:1V	45°
C	1½H:1V	34°

Types of sloping include:

Maximum allowable slopes for excavations less than 20 ft (6.09 m) based on soil type and angle to the horizontal are as follows:

Stable Rock

Height: Depth Ratio: Vertical
Slope Angle: 90°

Type A

Height: Depth Ratio: ¾:1
Slope Angle: 53°

Type B

Height: Depth Ratio: 1:1
Slope Angle: 45°

Type C

Height: Depth Ratio: 1½:1
Slope Angle: 34°

Type A (short-term)

Height: Depth Ratio: ½:1
Slope Angle: 63°
(For a maximum excavation depth of 12 ft)

Excavations and Trenching Continued.....

4. Continued: **Excavation planning requires many other protective measures.**

Protecting against the hazards of water accumulation. Supporting adjoining buildings, walls, pavement, utilities, etc., if needed to ensure their stability. Removing or barricading loose rock or soil to keep it from falling into the excavation. Providing walkways if employees or equipment will cross over excavations. Walkways 6 or more feet above lower levels must have guardrails.

5. Use personal protective equipment to stay safe. When required, assigned respirators for airborne related hazards, harness systems for rescue, high visibility vests, as well as normal protective gear (hardhat, safety glasses, safety boots, etc.).

6. **Follow Safety Rules and Precautions in and around an excavation.**

- Keep heavy equipment away from trench edges.
- Identify other issues that might affect trench stability, such as water seepage.
- Keep excavated soil (spoils) and other materials at least 2 feet (0.6 meters) from trench edges.
- Know where underground utilities are located before digging.
- Test for atmospheric hazards such as low oxygen, hazardous fumes and toxic gases when greater than 4 feet deep.
- Inspect trenches at the start of each shift. Inspect trenches following a rainstorm or other water intrusion.
- Do not work under suspended or raised loads and materials.
- Inspect trenches after any occurrence that could have changed conditions in the trench.
- Ensure that personnel wear high visibility clothing.

7. Follow what to do in an emergency. Leave the excavation or trench promptly and properly if you believe it is dangerous. Don't attempt a rescue unless you are trained, equipped, and authorized to do so.

Ardaman Excavation Policy

Employees must be alert to the potential for cave-ins when entering an excavation. Trenches must be excavated in accordance with 29 CFR Part 1926.

1. **Do not enter a trench unless the excavation is protected by a designed system such as shoring, shielding, or sloping of the ground or some other equivalent means, except when:**

- A. Excavations are made entirely in stable rock; or
- B. Excavations are less than 4 feet in depth and examination of the ground by a competent person indicates no potential for a cave-in. (Forms available from H&S Coordinator).

2. **Excavated or other material must be effectively stored and retained at least 2 feet or more from the edge of the excavation.**

3. When entering a trench by ladder, be sure it is secured against movement while in use. Since the ladder will rest on a soil base, test its stability before carrying any testing equipment into the excavation. The ladder must have clear access at the top and bottom and be placed at an angle so the horizontal distance from the wall is approximately one quarter the working length of the ladder. The top of the ladder should extend at least 3 feet above the surface of the excavation. Maintain 3 points of contact while ascending and descending the ladder.

4. **Do not jump into an excavation as knees and ankles are easily injured.**

5. There should be no more than a 25-foot traveling distance to a ladder from any point within the excavation.

OSHA Soil Classification

OSHA SOIL CLASSIFICATION: Excavations and Trenching:

29 CFR 1926 Subpart P Appendix A is based on site and environmental conditions, and on the structure and composition of the soil deposits. The soil classification system means a method of categorizing soil and rock deposits in a hierarchy of Stable Rock, Type A, Type B, and Type C, in decreasing order of stability.

Stable rock means: natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

Type A means:

Stiff to hard cohesive soils with an unconfined, compressive strength of 1.5 tons per square foot (tsf) (144 kPa) or greater. Examples of cohesive soils are: clay, silt clay, sandy clay, clay loam and, in some cases, silt clay loam and sandy clay loam. Cemented soils such as caliche and hardpan are also considered Type A. However, no soil is Type A if:

The soil is fissured; or

The soil is subject to the effects of vibration from heavy traffic, pile driving, etc.; or The soil has been previously disturbed; or

The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater; or

The material is subject to other factors that would require it to be classified as a less stable material.

Type B means:

Medium stiff to stiff cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than

1.5 tsf (144 kPa); or

Granular cohesionless soils including: angular gravel (similar to crushed rock), silt, silt loam, sandy loam and, in some cases, silty clay loam and sandy clay loam.

Previously disturbed soils except those which would otherwise be classed as Type C soil.

Soil that meets the unconfined compressive strength or cementation requirements for Type A, but is fissured or subject to effects of vibration; or

Dry rock that is not stable; or

Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if the material would otherwise be classified as Type B.

Type C means:

Soft cohesive soil with an unconfined compressive strength of 0.5 tsf (48 kPa) or less; or Granular soils including gravel, sand, and loamy sand; or

Submerged soil or soil from which water is freely seeping (**may not be stable except at a much flatter slope than 1.5H:1V**), or

Submerged rock that is not stable, or material in a sloped, layered system where the layers dip into the excavation or a slope of four horizontal to one vertical (4H:1V) or steeper.

Before you enter an excavation or trench, check for the following:

- ✓ Protections are in place against identified hazards
- ✓ Utilities are working with your employer or client to protect you and the utility lines
- ✓ Water won't enter the excavation
- ✓ Adjacent structures are stable or supported
- ✓ Where appropriate testing has been performed to identify any air contaminants or oxygen deficiencies
- ✓ Assigned PPE fits and is in good shape
- ✓ Loose rock or soil has been removed or held back at least 2 feet from the edge
- ✓ A sturdy exit or entrance is in place and within 25 feet of the worker
- ✓ Excavations sides are sloped, benched, shored, or shielded with a trench box
- ✓ Walkways are in place for crossing over the excavation, and guard rails are in place
- ✓ Materials area at least two feet from the excavation's edge or behind barricades
- ✓ A competent person inspected the excavation/trench and found it safe for work.

Pay Attention While Driving

"I never saw them!" is the most common excuse heard after a collision. Was the other vehicle invisible? Virtually all collisions involve inattention on the part of one or both drivers. Inattention can involve many things, some of which are day dreaming, distractions, eating, sleepiness, fatigue, "highway hypnosis", talking to others, using a smart/cell phone, etc.

A moving vehicle develops thousands of foot-pounds of energy. YOU as a driver have the responsibility not to use that energy to injure or kill others, or damage their property. Paying attention makes it possible for you to see, recognize and avoid the hazards lurking on the road; these are the three basic elements of defensive driving. The primary attribute necessary for a safe driver is alertness, and paying attention is the most important driving task because it helps create the time you need to recognize hazards and avoid a collision.

One statistic often quoted is that most collisions happen within a short distance from home. Why is this true? Since we mostly drive in our own neighborhoods, the odds are we'll have most of our mishaps there. We are more comfortable closer to home and perhaps we let our guard down (and the other driver does the same thing). You have heard that "familiarity breeds contempt"? Better yet, familiarity breeds inattention. This also applies to the area around our offices. We don't often consider that serious or fatal injuries can occur in low speed collisions.

While it is important for you to be alert and aware, it isn't an easy task. Here is a challenge for you. The next time you drive, try concentrating solely on the driving task. Think of nothing else. Then see how far you get before your mind wanders. Many drivers will not even get out of the parking lot! Seasoned drivers don't have to think about driving much. It's something we do automatically, and our minds are free to wander. And our minds want to wander. Have you ever driven somewhere and been so lost in thought that you could not remember anything about the trip itself? Is this a problem?

Is this a curable problem? Paying attention can become a habit, but you have to work at it. Make conscious, persistent choices not to eat while driving, or whatever you do that takes your attention off where your moving vehicle is pointed. Connect your mind to your eyes and work at consciously analyzing what you see while you drive. This is called "situational awareness." Driving is the most dangerous thing most of us ever do. It deserves your full attention.

811 Call before you dig

In order to ensure workers in the field have the necessary information, Ardaman drill crews or technicians who will be performing drilling/hand augering/digging must have the following items completed:

811 Call-in Requirements:

1. 811 Call ticket must be called in and created.
2. Call-in ticket must be checked and updated after information is received regarding the status of the utilities in the area.
3. The full Call-in ticket with information regarding the status of each utility in the area must be printed out and given to the field employees prior to machine drilling or hand augering. (Drilling or hand augering cannot be performed without clearance of all utilities on the ticket.)
4. The ticket must be physically on site during work activities.
5. A copy of the Call-in ticket should be initialed by the Drill Crew Chief/Field Technician and is to be included into the report file for the project after completion of the job.

Hand Augering Requirements Prior to Machine Drilling: Hand augering should be conducted the first 5' when the following may exist:

- Drilling in a road or utility right of way
- When utilities are present or suspected in the vicinity of the boring

Drill Crew Chief/Field Technician will make the decision whether or not to hand auger before machine drilling based on his/her assessment in the following scenarios:

- Drilling on undeveloped land
- Drilling outside of a road or utility right of way

If the Drill Crew Chief/Field Technician elects to not hand auger the location they must document their decision on the work order. The engineer or project manager must be contacted prior to performing work if sampling location from the initial work order is altered.

If there is any uncertainty as to location of utilities, private mark-out should be contacted prior to drilling. The Project Engineer or Project Manager should request that the client/property owner provide us with any site civil and/or utility plans and then review these plans to determine the potential for buried utilities the borings' areas.

An insulated probe rod should be used to verify the presence of underground utilities in the vicinity of the hole before advancing the hand auger or post hole digger. Before probing is conducted, a 1' (foot) diameter circle (6" radius) should be visualized around the boring location and divided into 4 quadrants. The probe should be inserted at the 12, 3, 6, and 9 o'clock positions around the perimeter of the circle at a minimum to confirm that no utilities are present below. If unknown objects are encountered, then do not drill, and contact your supervisor for further instructions.

Utility companies usually will not locate all lines within private property. Therefore, observe where utilities enter the site. Look for manholes or catch basins for storm water or sewage lines. Observe where power lines enter the building. Check the electrical box for underground lines leading away from the building. Use magnetic detectors to locate energized lines. These detectors are to be used only by experienced and qualified personnel.

If utilities are not ruled out; prior to drilling, the test hole location should be dug to a minimum depth of five (5) feet with a post hole digger or hand bucket auger to verify that there are no utility lines.

Conduct a Last-Minute Safety Assessment (LMSA) before performing the task.

The walls will fail, we just don't know when...

A rule to always remember about trenching.

Consider this scenario that led to a worker's death:

A false sense of security was formed because the workers had been doing similar work for 25 years without a serious accident or death. They knew they were out of compliance with the trenching and shoring standard, but they probably planned to be in the trench for only a few hours and thought everything would be okay. They thought the soil was stable, possibly because the trench was dug over 2 weeks ago and nothing had happened. Plus, other workers were in the trench just yesterday and nothing happened to them. But it rained overnight. The conditions that seemed to create stable soil had changed. The soil became wet. The trench collapsed. They could not save their co-worker and he died.

By following OSHA's excavation standards you can help prevent tragedies like this one and promote workplace safety.

What is the greatest risk in trenching and excavation? Cave-ins.

This is when soil or rock suddenly falls or slides into an excavation. It becomes dangerous when it includes a sufficient quantity of soil or rock to entrap, bury, injure, or otherwise immobilize a person. Soil weighs approximately 125 lbs. per cubic foot. When wet, it can weigh as much as 145 lbs. per cubic foot. A worker in a trench can be crushed by soil, rock, or an object during a cave-in. There is also a significant risk of suffocation – even if the worker's head is not buried, the soil can prevent chest expansion.

Additional hazards associated with excavation include hazardous atmospheres, falling soil or equipment, water accumulation, electrical hazards, and more.

These risks are recognizable and preventable. You can take action to prevent excavation and trenching tragedies at your workplace. Help open workers' eyes about trenching hazards, safe work procedures, and a potentially dangerous thought process.

NUMBERS TO REMEMBER

There are numerous aspects of OSHA's excavation and trenching standards you should review in your workplace, but we'd like to review several of the elements that can be remembered with the following 9 numbers:

- Keep spoil pile **2** feet from the edge of the trench.
- Ladders should be secured and extend a minimum of **3** feet above the landing.
- Trenches **4** feet or more in depth need proper access and egress.
- If a competent person suspects a hazardous atmosphere, testing will begin at **4** feet or less.
- Each employee in an excavation must be protected from cave-ins when the excavation is deeper than **5** feet or the competent person determines protection is necessary.
- Support systems should extend **18** inches above the excavation.
- At **20** feet or deeper, a professional registered engineer will design the protective system.
- Excavations of earth material should be to a level not greater than **24** inches below the bottom of the shield.
- Spacing between ladders or other means of access/egress should not be more than **25** feet laterally from a worker.



Rationalizing Unsafe Choices

Making the decision to follow every single safety rule or procedure does not come naturally to us. We constantly have to work towards making the right decisions every single day. Many times individuals find ways to rationalize not working safely. It is important for each worker to recognize this error trap and address it when it arises.

Why We Rationalize Unsafe Choices

For the most part, we all know what the right choice is when it comes to safety during a specific work task. Safety training, policies, procedures, labels, etc. all communicate what needs to be done to mitigate hazards and work safely. The problem is, there are many factors that affect whether or not we want to make the right decisions in a given moment. A few of these factors include:

- Time pressure
- Lack of supervision
- Lack of enforcement of rules
- Energy levels
- Mood



Individuals facing one or more of these factors will use them to rationalize why a certain safety rule does not need to be followed. For example, "I forgot my fall protection, but it will only take a minute to go up and right back down so I will be fine". We have all rationalized poor choices- whether it was choosing to not wear fall protection or rationalizing hitting snooze seven times before getting out of bed.

"It is the Normal Thing to Do"

When there are other people around who are not making the right choices when it comes to safety, it becomes the "normal" thing to do despite not being the correct thing to do. When the norm is working unsafe it makes it difficult for even the individuals who want to work safely to do so. Do not rely on a supervisor or safety person to have to tell you to do the right thing. Make the choice to do what is right regardless of what others may be doing.

Recognize when you are falling into the trap of rationalizing a poor decision whether that is in your personal life or on the job. Fight the urge to make the easy decision. Be a worker who follows the rules and helps reinforce a norm of adhering to safe work practices and procedures.

Ardaman Update



Injury Incidents:

- No injuries for March, great job everyone!

Vehicle and Equipment Incidents:

- The employee was traveling on the road in the early morning hours. Traffic ahead slowed when a truck stopped to make a left turn onto a side road. Another truck stopped behind the turning vehicle, and our driver observed the stopped vehicles and began braking to come to a stop. Another vehicle traveling behind us failed to stop and struck our vehicle from behind, pushing it forward into the other vehicle. Always look ahead to identify hazards and keep a one car buffer zone when coming to a stop from the vehicle ahead of you. (Bartow)
- The drill crew were performing an SPT alongside a roadway. While hand augering the first borehole location, the crew encountered unknown objects at a depth of three feet. The crew moved the boring to another location after approval from the project manager which had no utility markings within the tolerance zone for 811. The Crew was offset greater than 4.5 feet from the green flag marking a sewer line. The Crew hand augured again to a depth of five feet, did not encounter utilities, and proceeded to perform an the SPT. A 12" sewer main was struck at a depth of seven feet and sewage discharged from the break onto the surrounding area. All 811 guidelines and Ardaman protocols were followed. (Orlando)
 - * Reminder that drill crew must take a photo of the site with utility located/ marked prior to drilling.
 - * Borehole locations cannot be moved without contacting the AAI PM for permission.
- The employee was backing up on the road at a job site. While backing and turning, they were not paying attention and the front bumper and quarter panel on the driver side contacted the berm damaging our vehicle. If unsure of distances to objects, stop get out and look, ask for assistance from a spotter. If you here or feel resistance when moving a vehicle stop immediately and inspect your vehicle outside and the area. (Orlando)
- The employee had their vehicle parked at their residence. A Windstorm caused a portable basketball hoop in the front driveway to fall over striking the front windshield of our vehicle. Remember to secure projectiles prior to storms and move vehicles from underneath overhead hazards. (Tallahassee)

Ardaman Vehicle Inspection Reminder:

Ardaman's vehicle policy requires that all company vehicles are inspected at a minimum each month and documented. These inspections are then submitted to H&S for tracking.

What is the purpose of the vehicle inspection?

Monthly vehicle inspections are like a routine check-up for your vehicle, ensuring it stays in top shape and keeps you safe on the road. By staying proactive, you can catch potential issues before they turn into safety issues, costly repairs, or compliance with regulations. The inspection helps to ensure that your vehicle operates properly and performs as expected per the manufacture or when an emergency situation happens.

In addition, the monthly inspection also includes checking the safety items in the vehicle, (e.g. first aid kit, eyewash, fire extinguisher, etc....) and that they are in proper working order and not expired. We outfit the vehicles with safety items to provide additional help when needed. We prepare for the worst and hope for the best, and if needed, we want to ensure these items are available and in proper working order to help provide proactive care.

Near Miss / Hazard Identification

Highlighted Near Miss/ Hazard Identifications from **26 reports** received from the **month of February**.

- Employee was on a jobsite observing a contract driller. They were standing approximately twenty five feet away from the drill rig outside of the exclusion zone. The hose for the drill mud suddenly ruptured and the drilling mud sprayed towards our employee spraying their face and chest with mud. Our employee was wearing the standard AAI PPE for field work (Hard Hat, Safety Glasses, High visibility vest, and safety boots) and the PPE provided protection to ensure both their eyes and body were unharmed. This is great reminder of the importance of the use of PPE as the last line of defense. (Cocoa)

Ardaman Safety Audits

Identified Hazards from Loss Prevention Observation/ Safety Audits conducted in the month of February.

- **Housekeeping:** Employees were stepping over equipment in the field. Always designate an area to store tools and equipment to ensure that walk paths are clear and free of trip hazards.
- **Contact with:** Employee failed to perform a safety walk prior to backing a truck and almost struck an object. Always conduct a walk around prior to moving a truck and ask for a spotter if needed.



Ardaman Health and Safety Recognition Awards

The safety committee reviewed all of the near miss and hazard identification submittals for the month. All of the submittals were placed into a random lottery Pool. The following individuals were selected at random for a \$25.00 gift card.

February Lottery Winners:

- Angie Groce: Tallahassee
- Richard Lopez: Miami

A Safety Sticker was awarded to the following individuals:

- **Michael Liming** for recognition and actions regarding a tripping and impalement hazard on a job site. Our employee communicated with the contractor who did not have the means to remove the hazard. Our employee marked the hazard to ensure others were aware. A gift card was also provided to them. (Port St. Lucie)
- **Clif Leffler** for recognition and actions regarding a hose that ruptured on a contractor's drill rig. Our employee was outside of the exclusion zone and wearing proper PPE. Their use of proper PPE ensured they were not affected by the drilling mud. (Cocoa)
- **Tonya Erbland** for recognition and actions regarding a space heater left on in an office after hours. The employee ensured all equipment was off prior to leaving the office for the day, thus removing the potential fire hazard. (Tampa)

April 2026 Safety Quiz

Please circle the letter of the answer that fits best. Some answers can be found in the newsletter

1. A competent person is responsible for checking the excavation before entry, and takes action if safety problems are identified.
A. True B. False
2. Which systems can be used for protecting workers in an excavation or trench greater than 4 feet in depth ?
A. Trench Box or Shoring B. Sloping or benching C. Nothing is needed D. A&B
3. Excavations deeper than 5 ft. in depth must have a protective system in place.
A. True B. False
4. At a minimum, daily inspection of tools and equipment should be performed to verify proper and safe operation.
A. False B. True
5. Excavated materials (spoils) and equipment must be kept at least?
A. 22 inches from the edge of the excavation B. 2 feet from the edge of the excavation
C. 10 feet from the edge of the excavation D. All the above
6. A safe means of entry and exit must be provided for an excavation before entering.
A. True B. False
7. What type of soil is commonly found in Florida, Texas, and Louisiana regarding OSHA Classifications?
A. Type B B. Stable Rock C. Type A D. Type C
8. Barricades should be used to guard an excavation if mobile equipment can come in contact with the edge.
A. True B. False
9. A ladder must be used to enter an excavation greater than 4 foot in depth unless it is properly sloped.
A. True B. False
10. A ladder cannot be further than ____ feet from a worker that is down inside an excavation or trench and must extend 3 feet above the surface and be secured.
A.10 B. 25 C. 30 D. It does not matter
11. What is an employee’s last line of defense when exposed to hazards?
A. Training B. Engineering Controls C. PPE D. None
12. 811 Call in tickets must be created by both Ardaman and any subcontractors separately prior to performing drilling , hand augering, digging (> 18 “ deep), or creating an excavation.
A. True B. False

All Ardaman employees must complete the quiz and turn it into their H&S coordinator by the end of each month. For those individuals who cannot attend the monthly safety meeting, please complete the quiz and submit it to your supervisor for approval. All completed quizzes must be submitted at a designated location at each office. The supervisor only needs to sign the quiz if you are unable to attend the monthly safety meeting. Please provide a reason for your absence in the box below:

Employee Print Name	Employee Sign Name	Date
Supervisor Print Name	Supervisor Sign Name	Date