Lab Permit

Date: _____ Permit number: _____

Permit Initiator (Name/Student Number/Email): _____

Lab partner during work: _____

Part A: Scope of work

1- Purpose of work: ☐ Teaching ☐ Research ☐ Other _____
2- Start time & estimated duration: _____
3- Equipment Required: _____
_____
_____
4- Bit Type: _____ Bit Serial Number: _____
5- Summary of work to be done: _____
_____
_____
_____

Part B: Safety precautions

1- Risks involved in the proposed work: _____
_____
_____
_____
_____
2- PPE to mitigate risks:
☐ Steel Toe Shoes ☐ Lab Coat ☐ Coveralls ☐ Safety Glasses
☐ Face Shield ☐ Gloves ☐ Apron ☐ Dust Mask
☐ Hard Hat ☐ Other _____

Part C: Validity & Approvals

This permit is valid for the designated time slot only, if work is not completed within the timescale a new permit must be issued.

Permit Initiator	Requestor's Partner	Project Engineer	Lab Manager
_____	_____	_____	_____

Part D: Completion/Suspension of work

☐ I confirm that the work has been completed in accordance with this permit. The lab has been restored to its original state and the work area is ready for the next users.

☐ Work was not completed as per plan, a report of what went wrong and a new permit will be submitted next meeting. The lab has been restored to its original state and the work area is ready for the next users.

Permit Initiator	End Date	Lab Manager
_____	_____	_____

Lab Permit

Part D: Research Plan

Principal investigator

_____

Lab Permit

Safety procedures for drilling technology lab

1. Use the adequate PPEs to your activities.
2. All activities in the drilling lab must be performed with at least one partner.
3. Make sure you are familiar with the operations procedures as stated in the DTL manual
4. Do not operate the equipment unless you have been trained be an authorized trainer for the specific equipment
5. For drilling experiments make sure that the bit is properly seated in the drilling sample before applying full drilling parameters. Bit seating is performed as follows
    a. With a low rotary speed setting apply a low weight on bit value and start drilling in a very controlled ROP
    b. Continue drilling until the bit cutters are fully engaged in the rock sample
    c. When the bit is sufficiently engaged start applying your required drilling parameters by slowly increasing the WOB in fixed increments
6. For SDS experiments make sure you follow the Flow rate calibration procedures from the DTL manual
7. For geo mechanics frame experiments:
    a. Apply the axial load in a constant rate of application to make sure you have a proper graph
    b. For CCS experiments make sure the confining stress is applied in a rate that is proportional to the axial load application rate
8. For the triplex pump
    a. Make sure that the valves are lined up properly to avoid applying high pressure from the pump to city water supply
    b. When using the city water supply for atmospheric experiments, be aware that the flow rate will change with variations in back pressure
9. For the high pressure cell experiments please review the standard work instruction for assembly, disassembly and operation.
10. After you complete your experiments:
    a. Clean the equipment, tools, etc.
    b. Return the tools, equipment, and components to its correct storage place.
    c. Turn off the equipment that you used.
    d. Report the best practices used in your experiments (notes, pictures, schemes, etc.)
    e. Report the bit conditions (wear, damages, bit bearing, etc.)
    f. Report if there is any equipment and/or tools damaged, leaks, etc.
    g. Report any unsafe conditions.

Permit Initiator Requestor's Partner

_____ _____