

# **Appendix 2. U.S. Geological Survey Idaho National Laboratory Lithologic Core Storage Library Log**

Appendix 2 is a reproduction of a U.S. Geological Survey Idaho National Laboratory Lithologic Core Storage Library log.



## INL Lithologic Core Storage Library

Idaho National Laboratory  
Building CFA-663

Operated by the U.S. Geological Survey  
for the U.S. Department of Energy

**Contact:**  
M. K. V. Hodges  
USGS INL Project  
Office  
Willow Creek Building  
MS 1160  
Idaho Falls, ID 83415

**Official Name:** TAN 2336

Logged By: A. Trcka

Selected Aliases:

USGS Site ID: 435053112423203

Contractor Well ID: USGS

Drilling Agency: USGS

Year Drilled: 2021

Names of Drillers: James Fisher, Jared Geeting  
Sam Helmuth

Well Status:

Total Depth of Hole (ft): 255.8

Total Core Recovered (ft): 211.8

Beginning Depth (ft): 34

Ending Depth (ft): 255.8

☒ Continuous Recovery

☐ Selected Intervals Recovered

Total # of Core Boxes: 48

Notes:

County & State: Butte County, Idaho

Quadrangle Name:

Lat / Lng: 43°50'52.557", 112°42'31.898"

Tns / Rng / Sec: T06N R31EB S13

UTM Coordinates: 362643.329 Easting 4856402.466 Northing

Surface Elevation (ft): 4785.77

## Core Geological Profile

### Lithologic Patterns



Basalt



Sediment

### Intervals in Absentia



Missing Section

### Basalt Symbols



Vesicle zone



Vesicle planes

### Sedimentary Rock Symbols

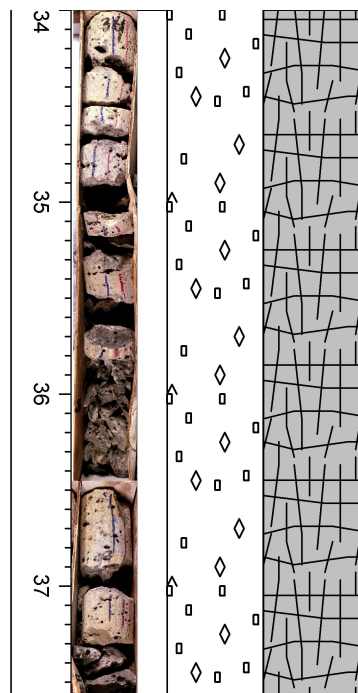


Structureless - Massive

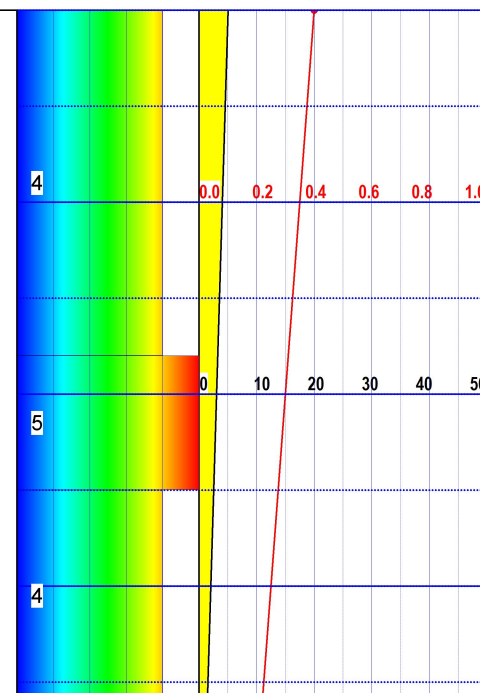


Blocky

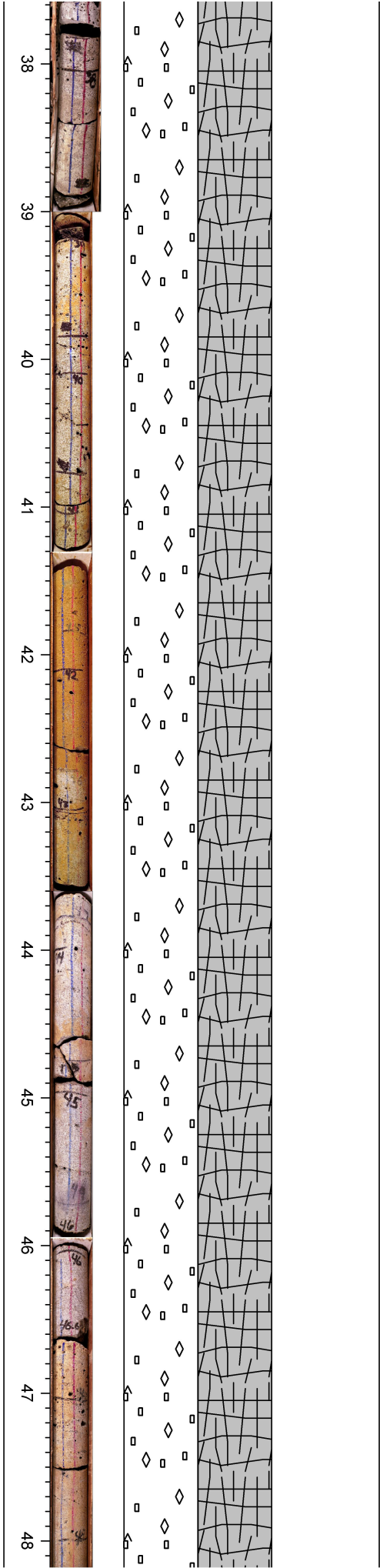
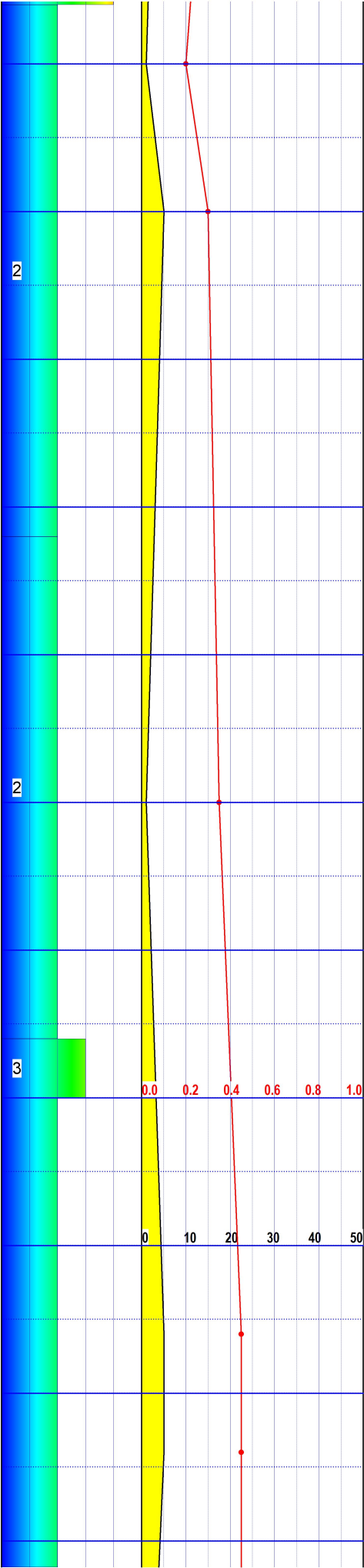
Depth (feet & tenths)	Core Photo	Igneous, Soil and Sed Structures	Lithology	Description		Fracture Frequency (See fracture classification on website.)	Vesicle Characteristics	
				Miscellaneous Text	Lithologic Description		Mean Size (in)	Volume Percentage

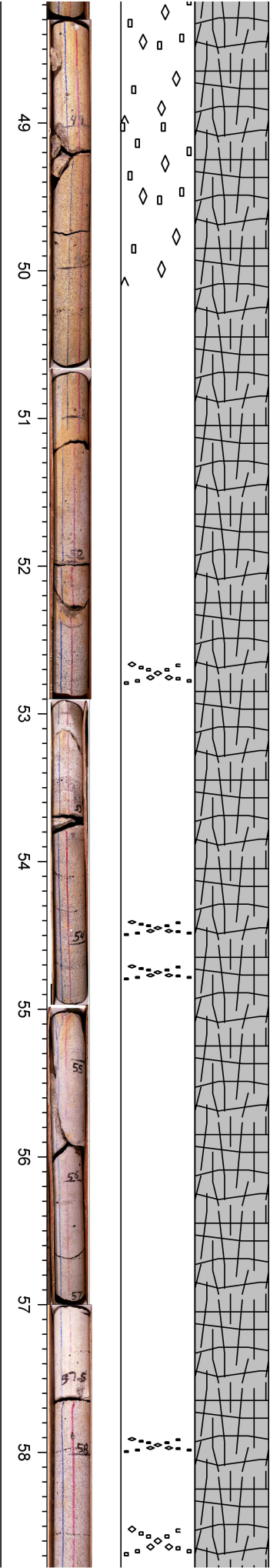
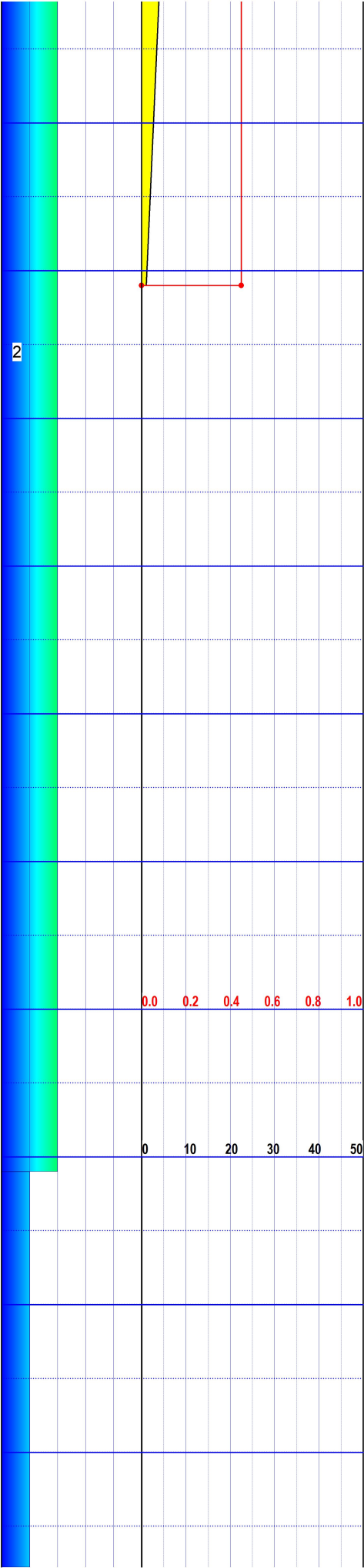


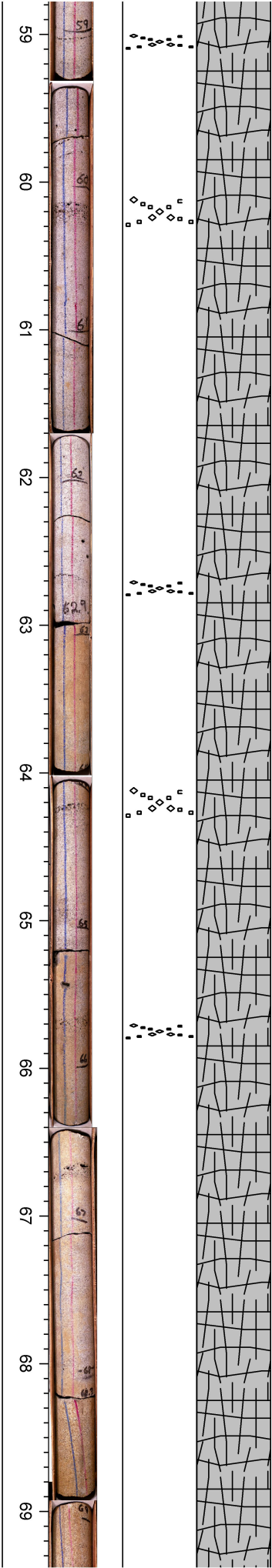
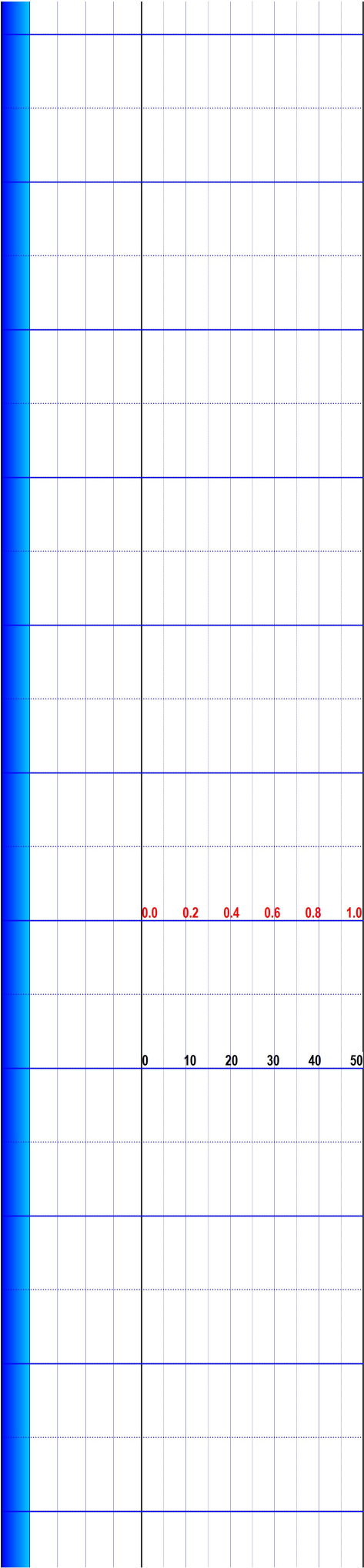
BASALT:  
LITHOLOGY: Basalt 34.0-83.5 ft.  
COLOR: N7 Light Gray  
TEXTURE: Porphyritic throughout, vesicular from 34.0-50.1 ft with size and volume decreasing, porphyritic from 50.1-70.0 Porphyritic with vesicular zones throughout, 70.0-83.5 ft porphyritic,  
COMPOSITION: 0-5% Olivine, 5-10 % Plagioclase (crystal sizes decrease from 75.5-83.5 ft.), Remainder groundmass  
XENOLITH: None noted  
ALTERATION: Olivine to red altered olivine

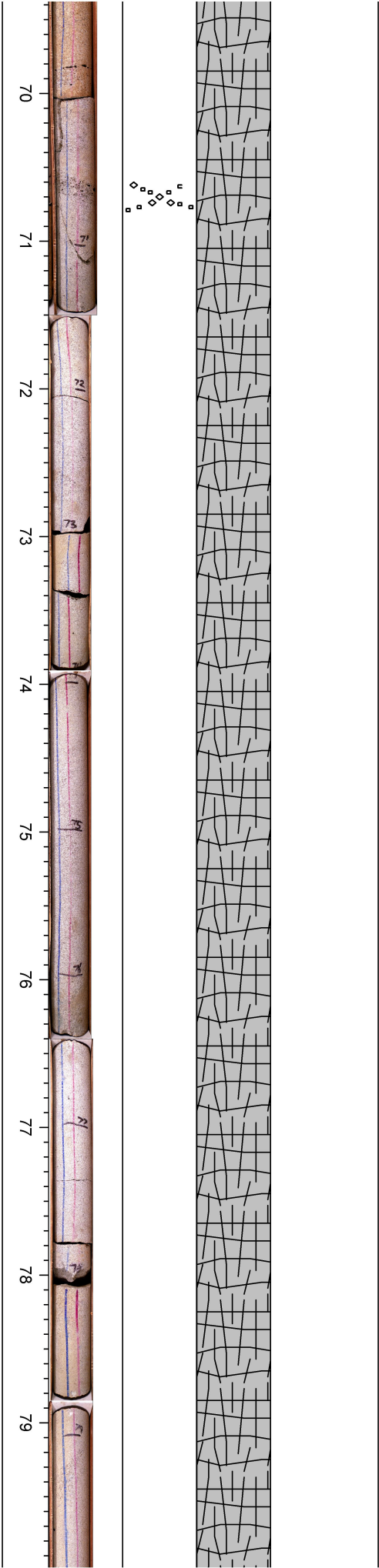
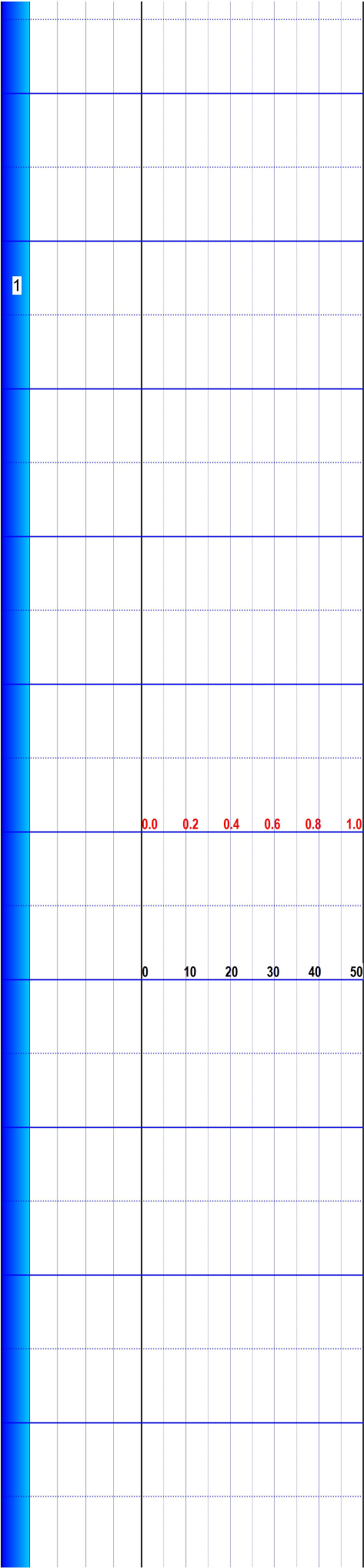


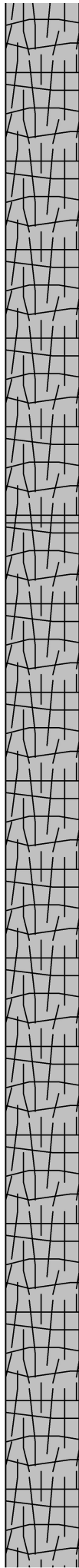
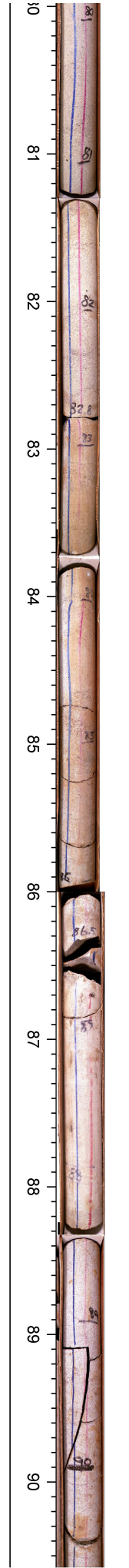








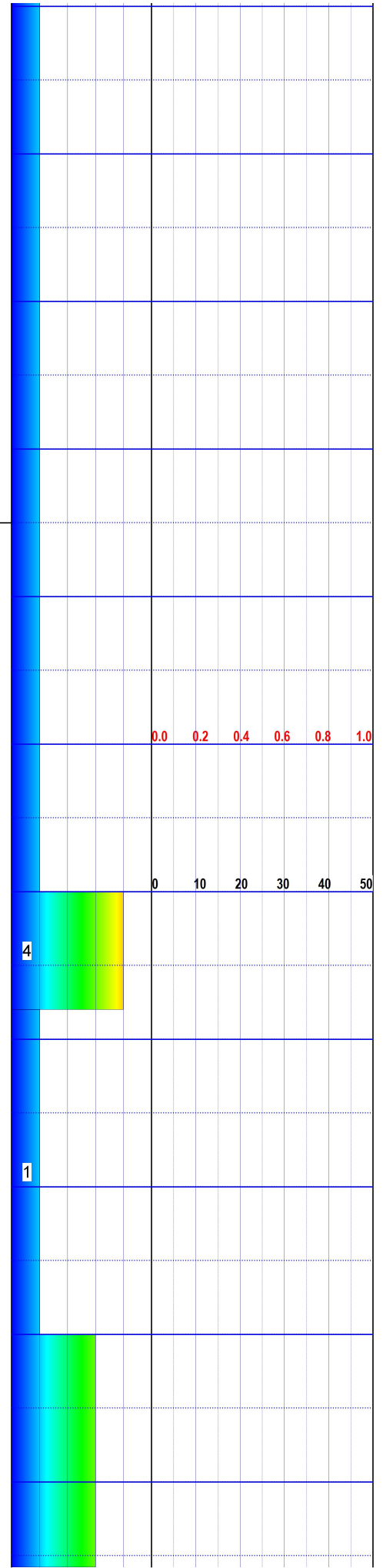




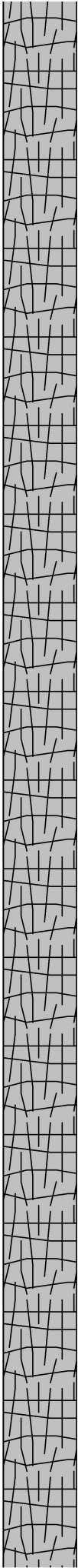
Drilling  
Fractures Start

Drilling  
Fractures End

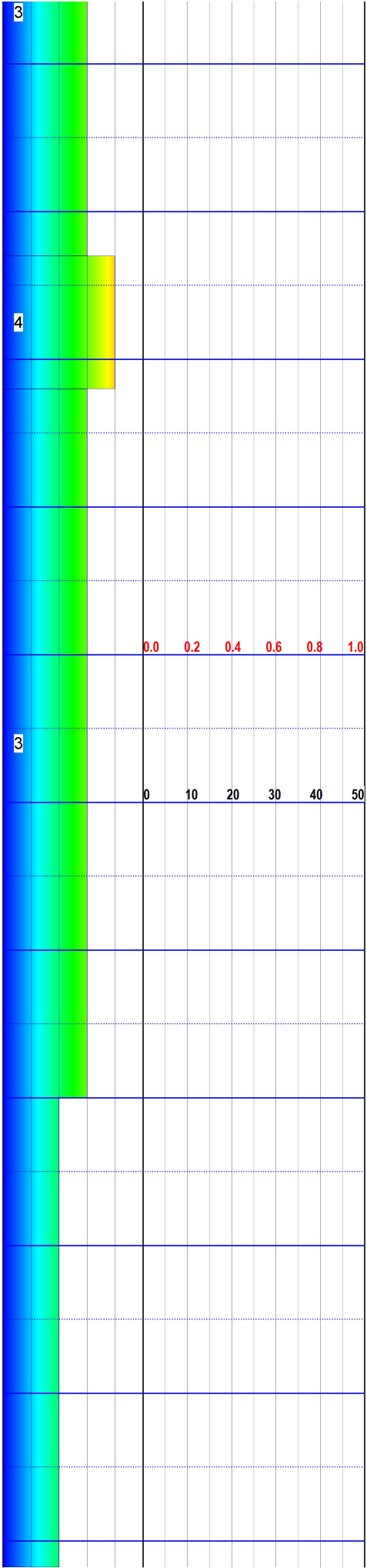
BASALT:  
LITHOLOGY: Basalt 83.5-153.0 ft.  
COLOR: N7 Light Gray, 5YR 6/1 Light Brownish Gray, 5RP 6/2 Pale Red Purple, N6 Medium Light Gray  
TEXTURE: Porphyritic throughout, porphyritic from 83.5-95.0 ft, massive from 95.0-108.0 ft, vesicular from 108.0-121.1 ft with size and number increasing to 113.0 ft and decreasing from 113.0 to 121.1 ft, porphyritic from 121.1-126.8 ft, slightly dixytaxitic from 126.8-131.9 ft, vesicular from 131.9-153.0 ft with vesicle size and number decreasing to 140.0 ft and increasing to 153.0 ft.  
COMPOSITION: 5-10 % Plagioclase (small crystals from 131.9-153.0 ft), Remainder groundmass  
XENOLITH: None noted  
ALTERATION: None noted

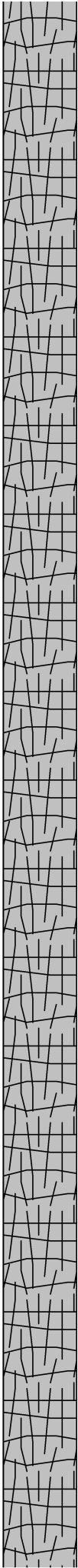
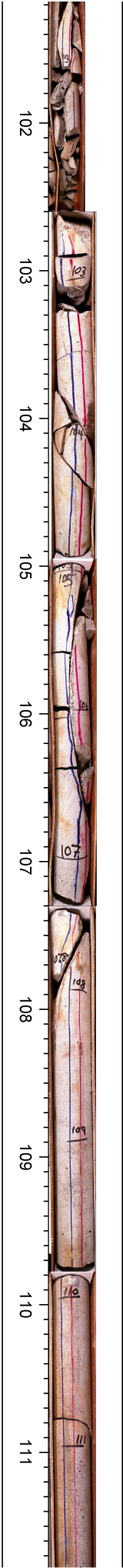




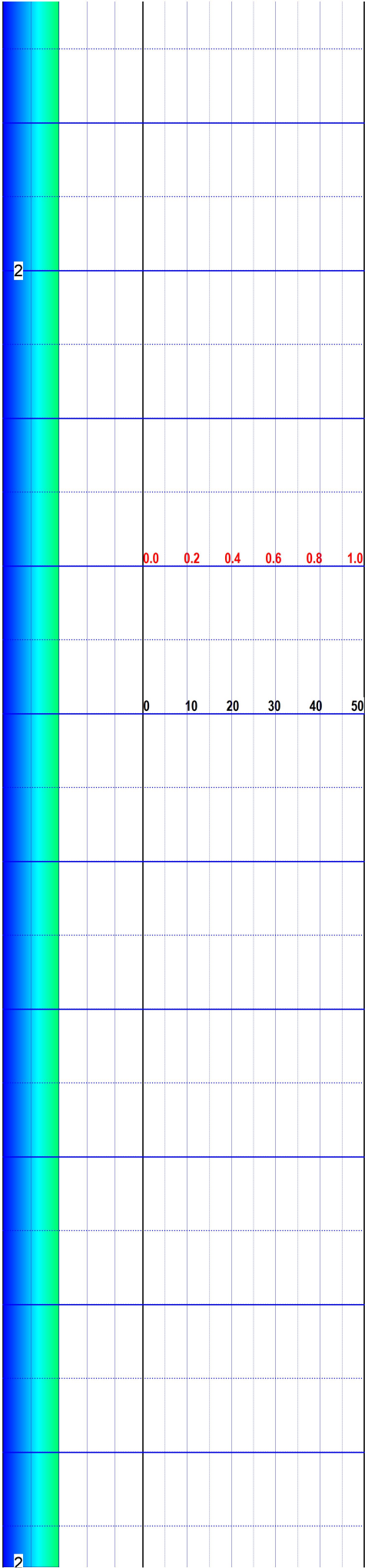


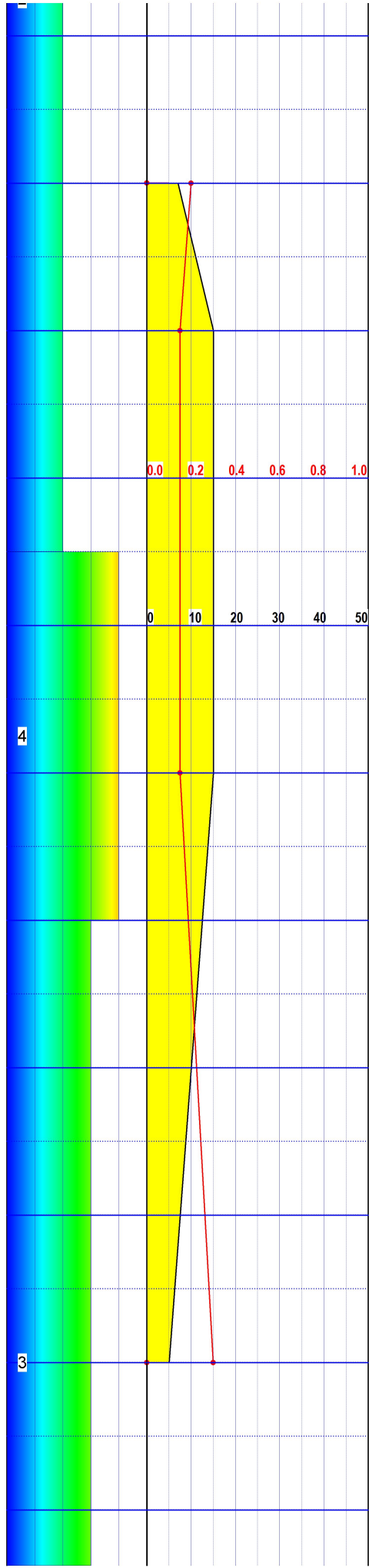
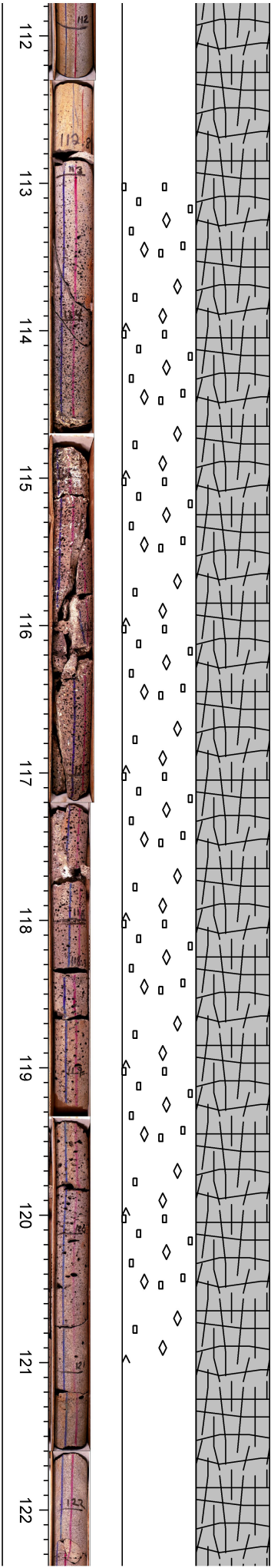
Drilling  
Fractures Start



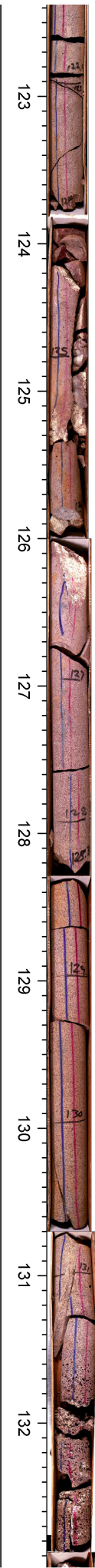
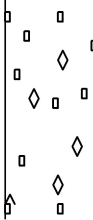
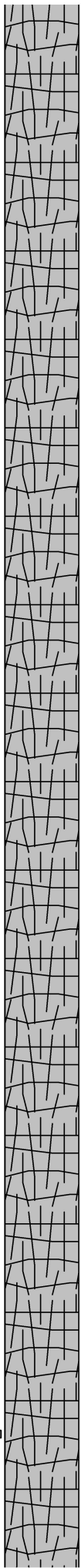
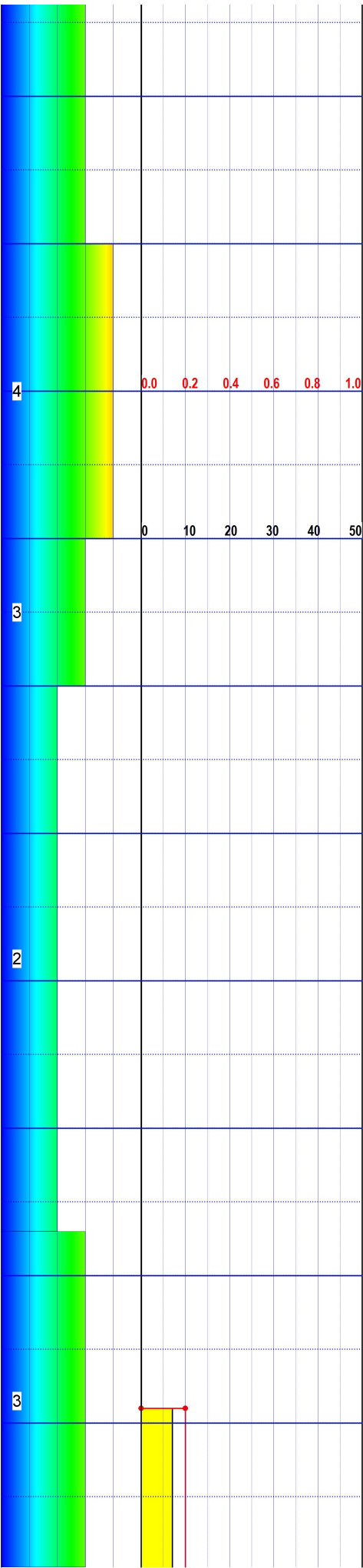


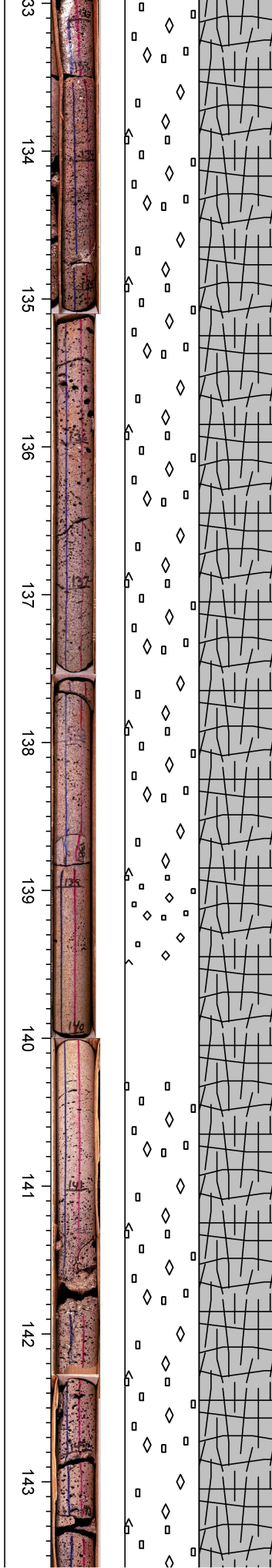
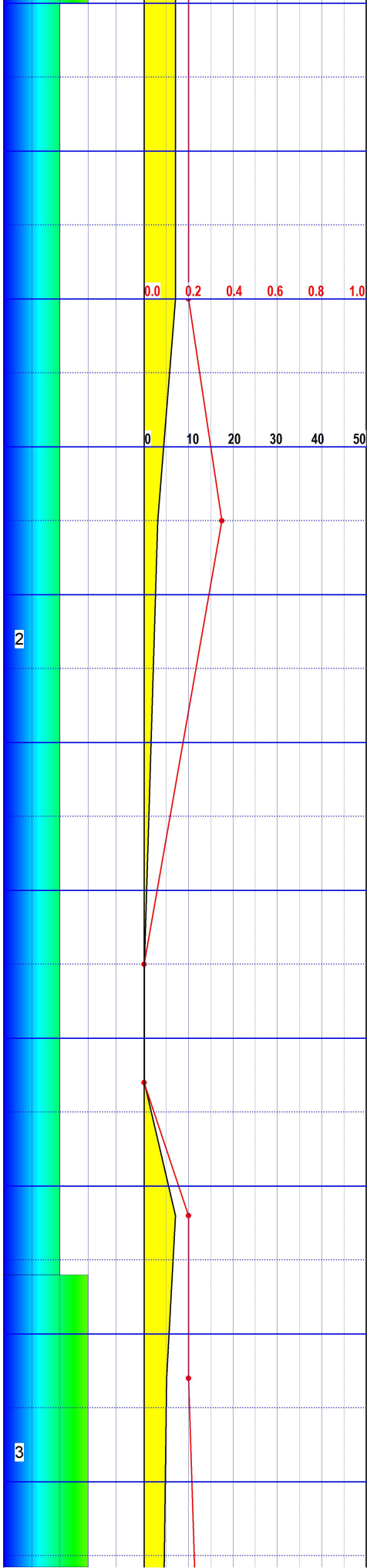
Drilling  
Fractures End

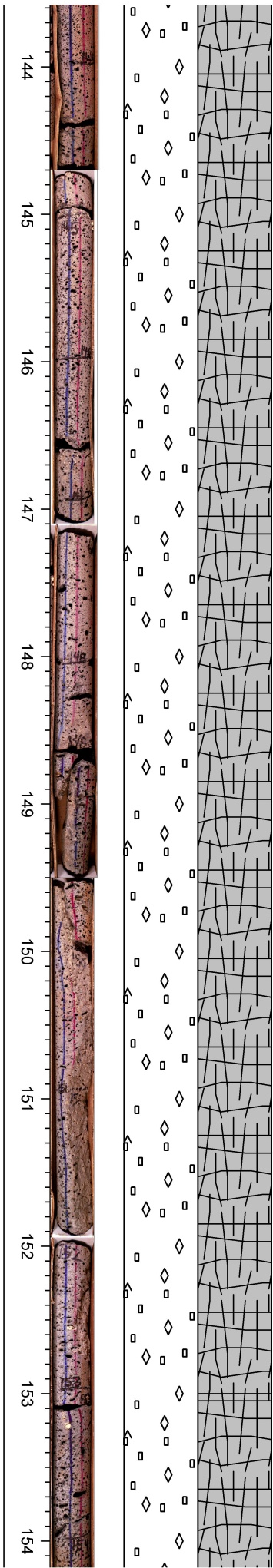




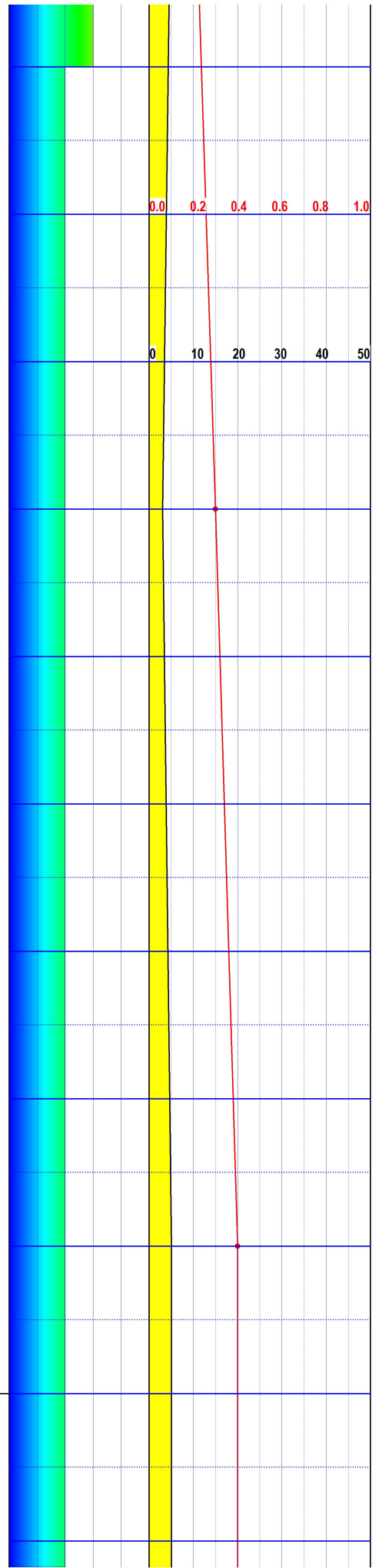








BASALT:  
LITHOLOGY: Basalt 153.0-202.5 ft.  
COLOR: N7 Light Gray, N6 Medium Light Gray, N8 Very Light Gray  
TEXTURE: Porphyritic throughout, vesicular from 153.0 - 161.4 ft with size and volume decreasing, porphyritic from 161.4-178.5 ft with vesicular zones throughout, massive from 178.5-183.6 ft transitioning into a slightly massive zone from 183.6-200.1 ft where transitions into a massive zone ending at

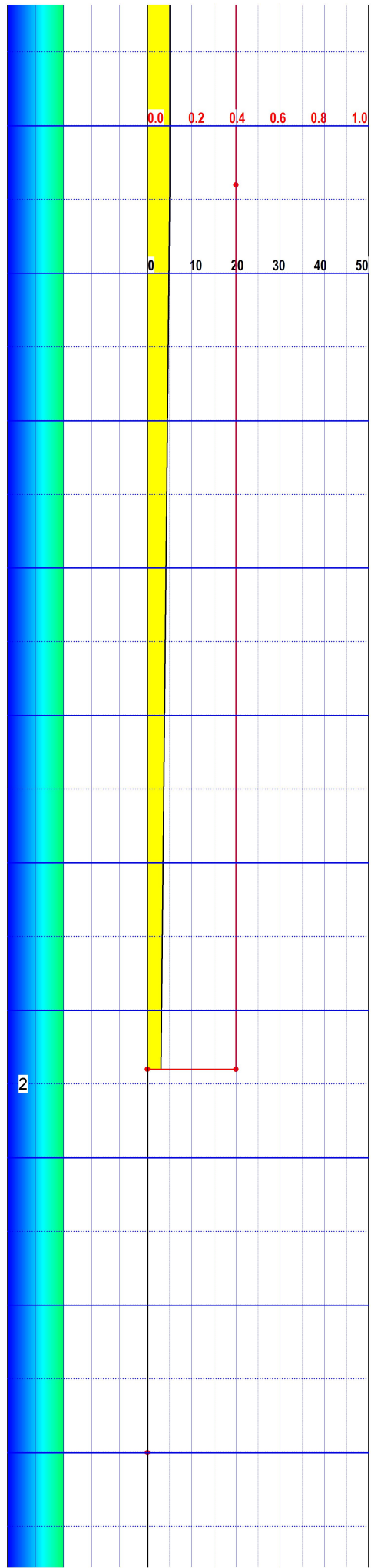
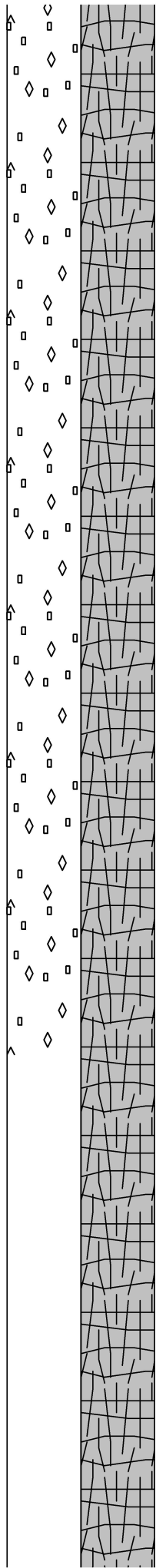
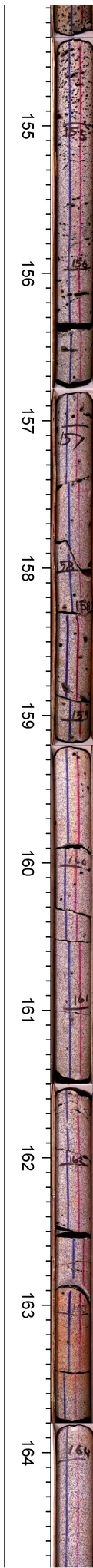


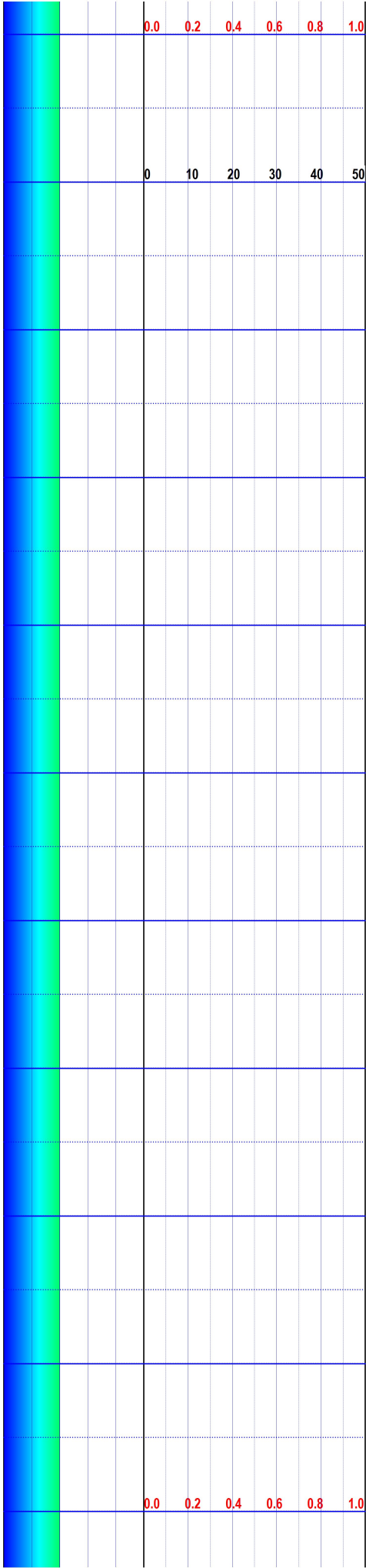
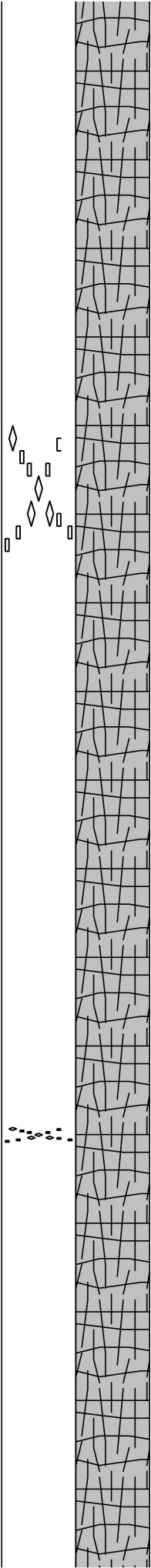
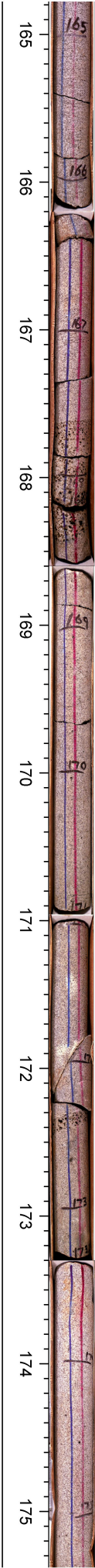
202.5 ft.

COMPOSITION: 5-10 % Plagioclase, Remainder groundmass

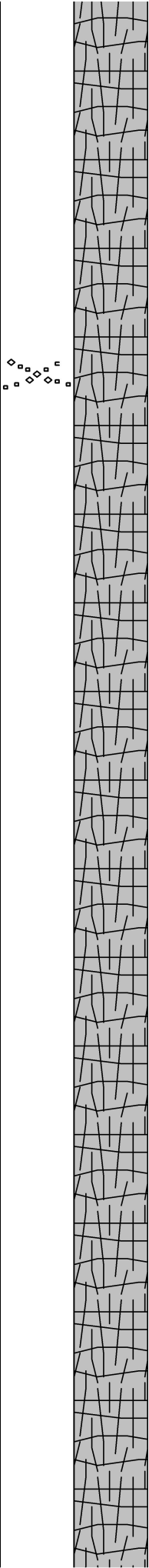
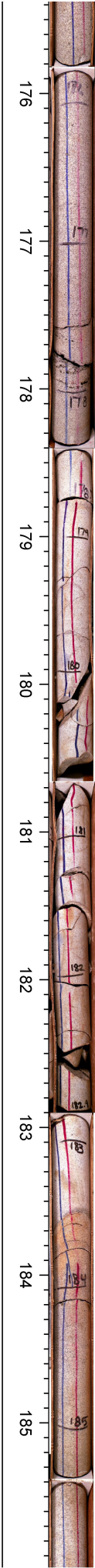
XENOLITH: None noted

ALTERATION: None noted



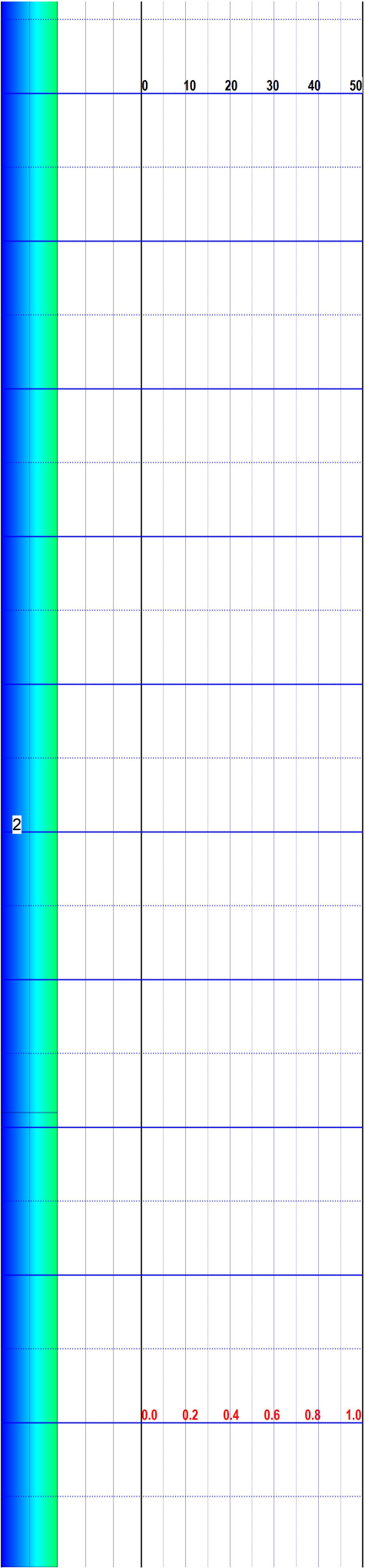


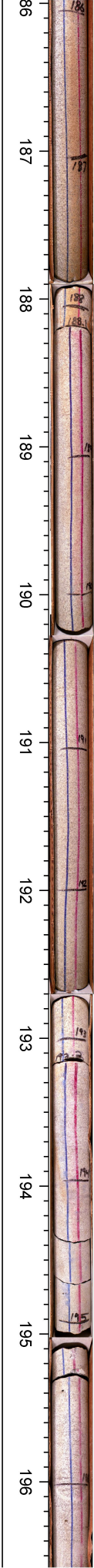
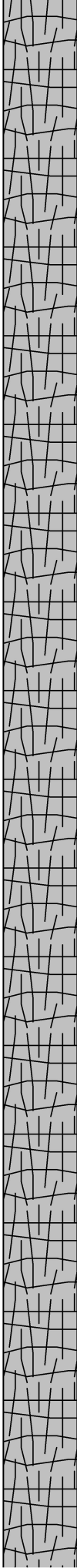
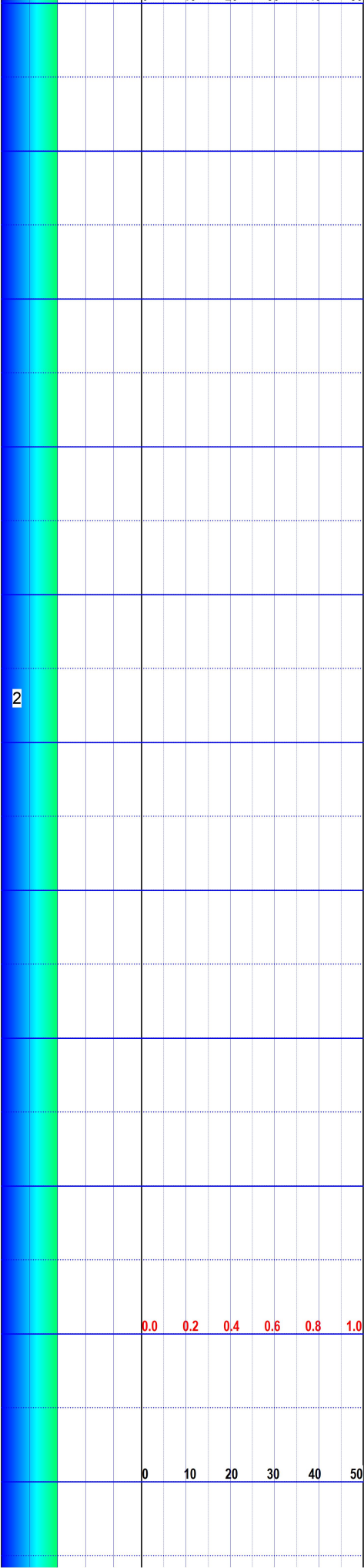


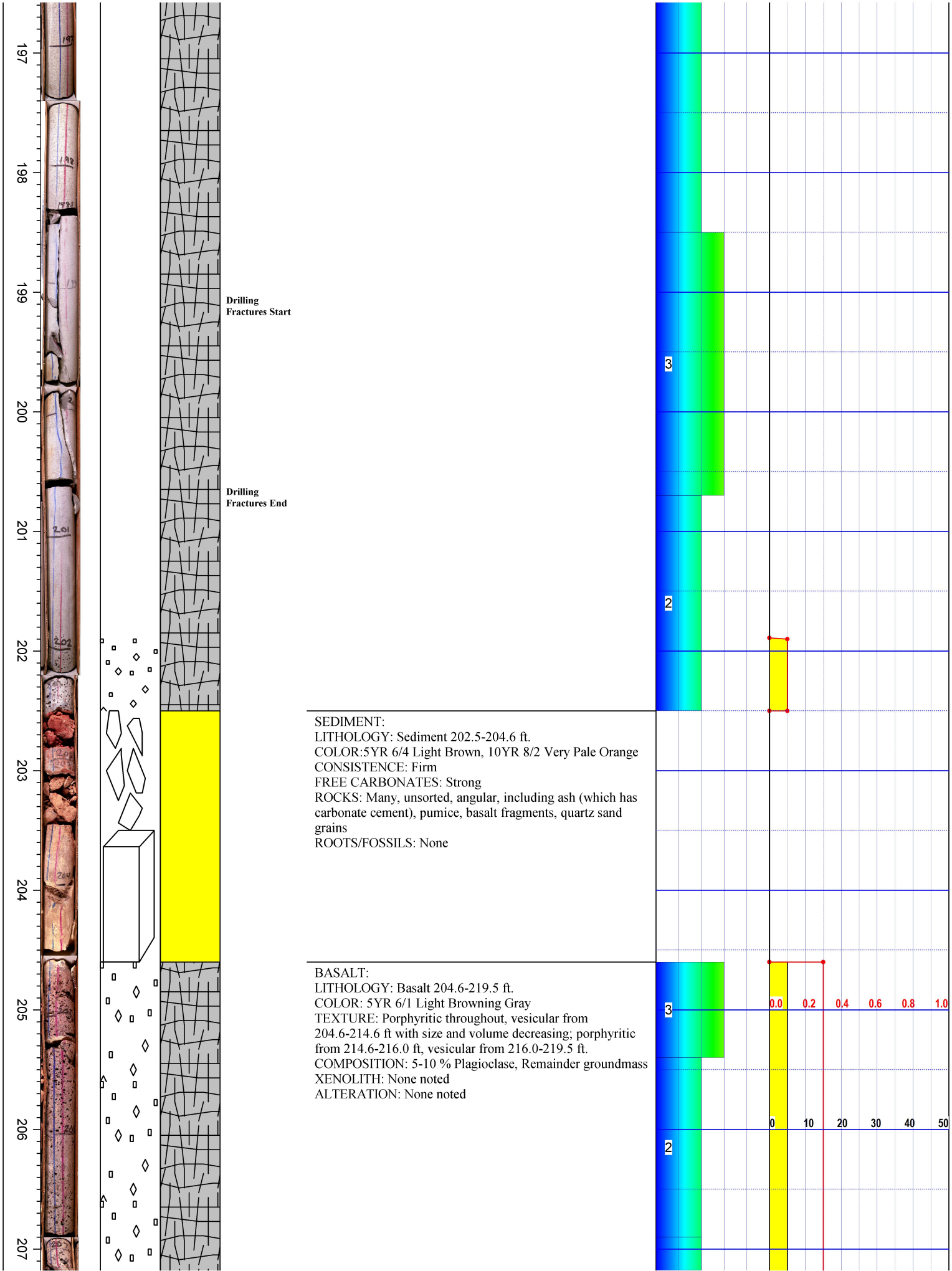


Drilling  
Fractures Start

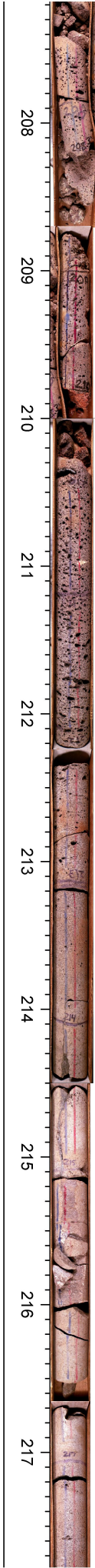
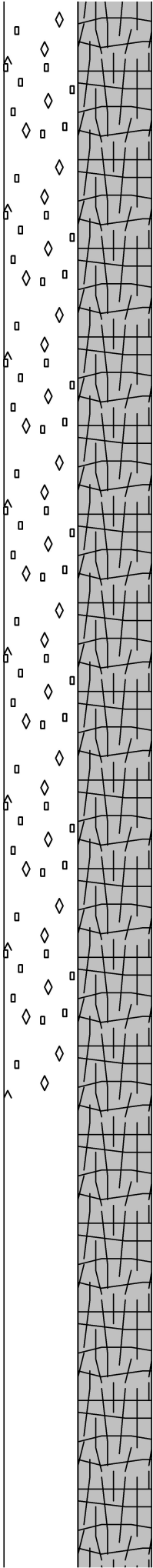
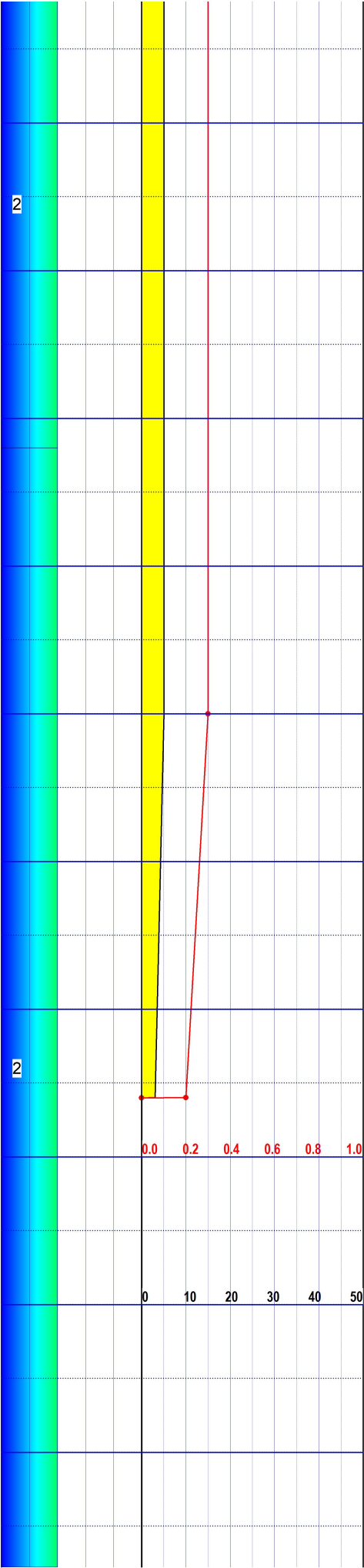
Drilling  
Fractures End

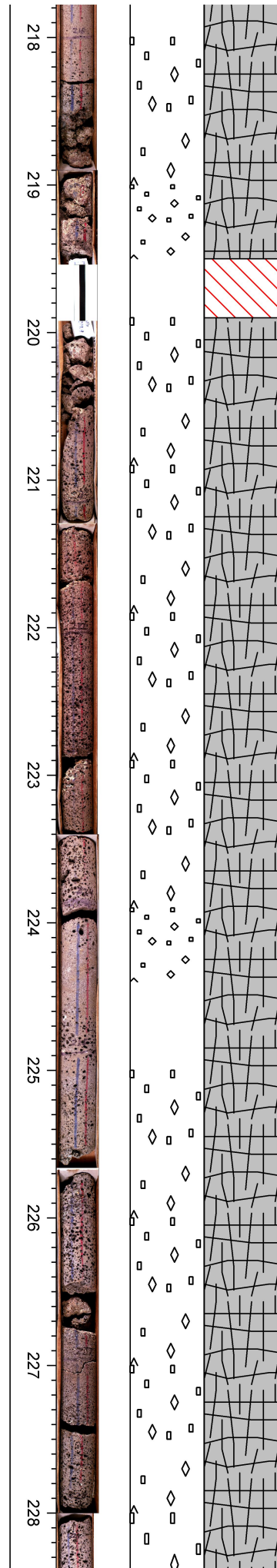






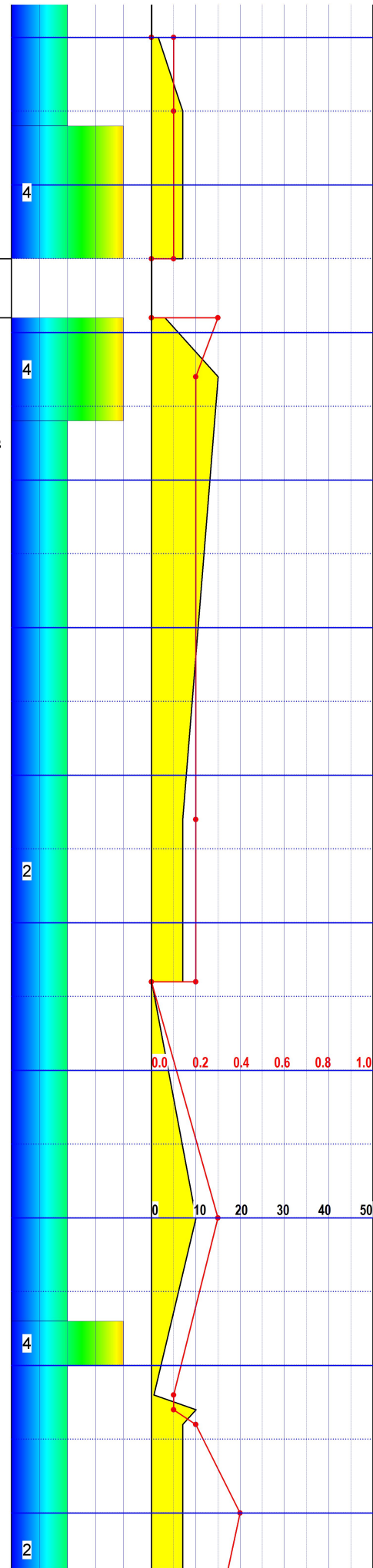


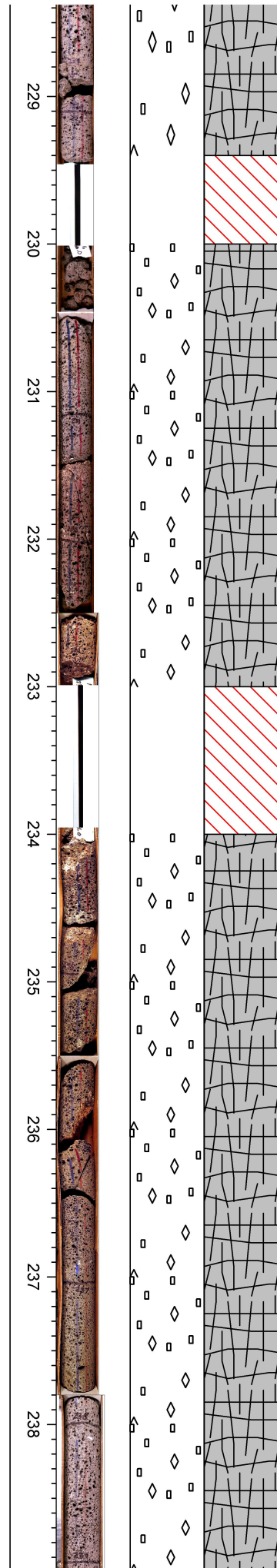




MISSING SECTION: 219.5-219.9 ft

BASALT:  
LITHOLOGY: Basalt 219.9-229.4 ft.  
COLOR: 5YR 6/1 Light Brownish Gray, N6 Medium Light Gray  
TEXTURE: Porphyritic throughout, vesicular from 219.9-229.4 ft.  
COMPOSITION: 5-10 % Plagioclase, Remainder groundmass  
XENOLITH: None noted  
ALTERATION: None noted





MISSING SECTION: 229.4-230.0 ft

BASALT:  
LITHOLOGY: Basalt 230.0-233.0 ft.  
COLOR: 5YR 6/1 Light Brownish Gray, N6 Medium Light Gray  
TEXTURE: Porphyritic throughout, vesicular from 230.0-233.0 ft.  
COMPOSITION: 5-10 % Plagioclase, Remainder groundmass  
XENOLITH: None noted  
ALTERATION: None noted

MISSING SECTION: 233.0-234.0 ft

BASALT:  
LITHOLOGY: Basalt 234.0-255.8 ft.  
COLOR: N6 Medium Light Gray, N7 Light Gray, N5 Medium Gray  
TEXTURE: Porphyritic throughout, vesicular from 234.0-240.0 ft, slightly massive from 240.0-241.8 ft, vesicular from 241.8-244.0 ft, porphyritic from 244.0-248.6 ft with vesicular zones throughout, vesicular from 248.6-255.8 ft.  
COMPOSITION: 5-10 % Plagioclase, Remainder groundmass  
XENOLITH: None noted  
ALTERATION: None noted

