

CRUISE G96 – SAMPLE DESCRIPTION

G96 01 Conrad F.Z. empty ; empty
G96 02 basalts 80%; gabbro dolerites 10%; gabbro 5%; Fe-Mn crusts 5% ;
G96 03 Conrad F.Z. empty ; empty
G96 04 peridotites 30%; gabbros 30%; calcarenites 30%; basalts 5%; glacial erratics 5% ;
G96 05 Conrad F.Z. one sample of basaltic breccia ;
G96 06 Conrad F.Z. (Axial valley) empty ; empty
G96 07 Conrad F.Z. (Axial valley) lost ; lost
G96 08 Shona Smt basalts 60%; sandstones 30%; glacial erratics 10% ;
G96 09 basalts 60%; glacial erratics 40% ;
G96 10 Area SW of Spiess complex olivine basalt 85%; fresh glasses 5%; vesicular lavas 10%, one big sample (50 kg) of olivine tholeite ;
G96 11 Spiess ridge pillow basalt with thin Fe-Mn crust, vesicular basalts, glassy crusts, Fe-hydroxide alteration ;
G96 12 fresh high vesicular basalt, flow lavas with Pahoe-hoe structures, big amount of fresh glass ;
G96 13 Spiess ridge pillow fragments and flow lavas with glassy crust, fresh glass, 1 mm max Fe-Mn coating ;
G96 14 big pillow fragments, basaltic breccia, lavas with thin glassy crust, lightly altered ;
G96 16 Spiess ridge pillow fragments basalts with thick Fe-Mn crust, high vesicular fresh basalts with thin Fe-Mn patina ;
G96 17 Area N of Bouvet F.Z. pillow fragments with fresh glass, tectonized basalts, different degrees of hydrothermal alteration, Fe-Mn patina, sulphides ;
G96 18 basalts and fresh glasses with thin Fe-Mn coating ;
G96 19 Area SW of Spiess complex basaltic breccia, including glass, with thick Fe-Mn crust, up to 2 cm, small basaltic samples ;
G96 20 pillow fragments with thick Fe-Mn crust, fresh vesicular basalts, interesting big vitrobasalt sample, sandstone in situ, erratics;
G96 21 Area SW of Spiess complex fresh and different alteration rate basalts, thick Fe-Mn crust ;
G96 24 Mid Atlantic Ridge fresh pillow basalt sectors, with glassy crust, no erratics, no Fe-Mn crust, abundant fresh glasses ;
G96 25 1 pillow fragment, little basalts with glass, thin Fe-Mn patina ;
G96 26 Mid Atlantic Ridge One big very fresh lava burr, Cpx-Ol-Pl porphyric, with thick glassy crust and fragments of glassy crust ;
G96 02-00 sediments sand composed by clasts of Qtz, Opx, Ol, Pl, glass (?), Di, secondary minerals, bastite, basaltic clasts, globigerinoides
G96 02-01 basalt sample cm 2x4, rounded, Pl-Ol porphyric, pyrite alteration inside vesicles
G96 02-02 basalt sample cm 4, rounded, Pl-Ol porphyric 1 mm, microphenocrysts replaced by iddingsite
G96 02-03 basalt sample cm 3x4, rare olivine crystals, lightly altered
G96 02-04 aphyric basalt sample cm 2.5x3, fluidal texture
G96 02-05 aphyric basalt sample cm 1.5x1.5, rare olivine and plagioclase crystals, vesicular
G96 02-06 aphyric basalt sample cm 1x1.5, rare olivine and plagioclase crystals, vesicular
G96 02-07 aphyric basalt sample cm 1.5x2, rare olivine and plagioclase crystals, vesicular
G96 02-08 aphyric basalt sample cm 1.5x3, fresh
G96 02-09 aphyric basalt sample cm 1.5x2, fresh
G96 02-10 aphyric basalt sample cm 1.5x2, fluidal texture by deformation of vesicles
G96 02-11 basalt sample cm 3, Pl-Ol porphyric, Ol replaced by iddingsite
G96 02-12 basalt sample cm 3, Pl-Ol porphyric, fine vesicles
G96 02-13 aphyric basalt rare olivine crystals
G96 02-14 basalt sample cm 1.5x2, Pl porphyric, altered plagioclase
G96 02-15 dolerite sample cm 1.5x1.5, bastite
G96 02-16 microgabbro sample cm 1x2
G96 02-17 microgabbro sample cm 1x3
G96 02-18 microgabbro sample cm 2x2
G96 02-19 granitoid sample cm 2x2.5, erratic pebble
G96 02-20 metasomatite sample cm 2x1.5
G96 02-21 sandstone few fragments, clasts by Pl, Ol, Opx (0.1-5 mm), carbonatic cement
G96 02-22 Fe-Mn crust sample cm 1.5x3.5
G96 04-00 sediments sand composed by clasts of Qtz, Opx, Pl, glass, bastite, globigerinoides
G96 04-01 serpentized peridotite sample cm 10x16 (two pieces), orthopyroxene 6 mm, altered bastite, thin veins of Fe hydroxide
G96 04-02 serpentinite sample cm 8x5, lightly smoothed, jagged shape relicts of orthopyroxene, undulate cleavage, bastite
G96 04-03 serpentized peridotite sample cm 5x2, big crystals of bastite
G96 04-04 serpentized peridotite sample cm 4x5, lightly smoothed, isorientation of pyroxene, clinopyroxene, relicts of orthopyroxene with undulate cleavage, veins of white minerals
G96 04-05 serpentinite sample cm 7x5, smoothed, distorted orthopyroxene, bastite
G96 04-06 serpentinite sample cm 2x2

G96 04-07 serpentinite sample cm 5x5, lightly smoothed
G96 04-08 serpentinite sample cm 2x3, big crystals of bastite
G96 04-09 serpentinite sample cm 5x5, lightly smoothed, orthopyroxene, bastite
G96 04-10 serpentinite sample cm 3x3
G96 04-11 serpentinite sample cm 4x4, lightly smoothed
G96 04-12 serpentinite sample cm 2x2
G96 04-13 serpentinite sample cm 6x4, smoothed, relicts of orthopyroxene
G96 04-14 serpentinite sample cm 3x2
G96 04-15 serpentinite sample cm 5x4, lightly smoothed, isoriented veins
G96 04-16 serpentinite sample cm 3x2, bastite
G96 04-17 serpentinite sample cm 5x4, smoothed. orthopyroxene
G96 04-18 serpentinite sample cm 3x3
G96 04-19 serpentinite sample cm 7x5, rounded, Fe-hydroxide
G96 04-20 serpentinite sample cm 1x1
G96 04-21 serpentinitized peridotite sample cm 3x2, lightly smoothed, orthopyroxene
G96 04-22 serpentinite sample cm 3.5x2, smoothed, orthopyroxene
G96 04-23 serpentinite sample cm 4x4, lightly smoothed
G96 04-24 serpentinite sample cm 2x4, lightly smoothed, Fe-hydroxide alteration, relicts of orthopyroxene
G96 04-25 serpentinite sample cm 5x3, lightly smoothed, relicts of orthopyroxene, Fe-hydroxide
G96 04-26 serpentinite sample cm 3x3
G96 04-27 serpentinite sample cm 3x3.5, lightly smoothed, relicts of orthopyroxene
G96 04-28 serpentinite sample cm 1x2
G96 04-29 serpentinite sample cm 2x2.5, lightly smoothed, relicts of orthopyroxene
G96 04-30 serpentinite sample cm 2.5x3, lightly smoothed
G96 04-31 serpentinite sample cm 1.5x3, smoothed, white vein
G96 04-32 serpentinite sample cm 2.5x4.5, lightly smoothed
G96 04-33 serpentinite sample cm 2.5x3, lightly smoothed, Fe-hydroxide
G96 04-34 serpentinite sample cm 1x3, lightly smoothed, white veins
G96 04-35 serpentinite sample cm 2x3.5
G96 04-36 serpentinite sample cm 1.5x3
G96 04-37 gabbro sample cm 10x30x50, orthopyroxene, clinopyroxene, large size of crystals
G96 04-38 gabbro sample cm 10x20x25, clinopyroxene, light Fe-Mn crust, large size of crystals
G96 04-39 gabbro sample cm 5x10x30, clinopyroxene, large size of crystals
G96 04-40 gabbro sample cm 7x7, lightly smoothed, altered, fractured
G96 04-41 gabbro sample cm 8x4, smoothed, altered, medium size of crystals, clinopyroxene
G96 04-42 gabbro sample cm 4x4, smoothed, altered, medium size of crystals
G96 04-43 gabbro sample cm 4x3, lightly rounded, jagged shape PI, Px with red alteration
G96 04-44 gabbro sample cm 3x6, medium size of crystals, altered
G96 04-45 gabbro sample cm 3x3, medium size of crystals, foliated, (milonite ?)
G96 04-46 gabbro sample cm 3.5x4, rounded, foliated, complete alteration of pyroxene
G96 04-47 gabbro sample cm 5x6.5, smoothed, Fe-hydroxide alteration
G96 04-48 gabbro sample cm 2.5x4, smoothed, altered, fractured
G96 04-49 aphyric basalt sample cm 3x3, microphenocrysts of Ol and Pl, fresh, lightly vesicular, empty vesicles
G96 04-50 aphyric basalt sample cm 2x2, microphenocrysts of Ol
G96 04-51 aphyric basalt sample cm 1.5x3.5, lightly altered, vesicular, Fe-hydroxide
G96 04-52 aphyric basalt sample cm 2.5x3, vesicular, fresh, Fe-hydroxide inside the vesicles
G96 04-53 basalt sample cm 2x2.5, millimetric phenocrysts, Cpx, fluidal texture by Pl microliths
G96 04-54 basalt sample cm 2x4, altered, Fe-hydroxide, smectites
G96 04-55 microphyric basalt sample cm 2x3, microliths of Pl, Cpx, smectites
G96 04-56 aphyric basalt sample cm 1x3.5, alteration veins, microliths of Pl, Cpx
G96 04-57 metasomatic serpentinitite sample cm 3.5x4, veins of serpentine, white veins (brucite?)
G96 04-58 metasomatic serpentinitite sample cm 3x4, relicts of primary serpentine
G96 04-59 metasomatic serpentinitite sample cm 2.5x4
G96 04-60 metasomatic serpentinitite sample cm 2.5x4.5
G96 04-61 breccia sample cm 15x30, carbonatic cement 3-5%, clasts from pale green in the center to pale brown-brown on outer rim, clasts rounded, with fine concentric or flat layering, soft mineral unreactive to HCl (smectite?)
G96 04-62 breccia like description of sample G9604-61
G96 04-63 breccia like description of sample G9604-61
G96 04-64 breccia like description of sample G9604-61
G96 04-65 milonite erratic pebble, sample cm 3x5, foliated
G96 04-66 milonite erratic pebble, sample cm 4x6, fine texture
G96 04-67 sandstone erratic pebble, sample cm 4x4, dark coloured
G96 04-68 sandstone erratic pebble, sample cm 2.5x3, fossil of trilobite, clast of limestone

G96 04-69 sandstone erratic pebble, sample cm 3x5.5
 G96 04-70 sandstone erratic pebble, sample cm 3x5
 G96 04-71 sandstone erratic pebble, sample cm 3x4
 G96 04-72 dolerite erratic pebble, sample cm 2.5x6, Fe-ore
 G96 04-73 greenschist erratic pebble, sample cm 2.5x3.5, chlorite
 G96 04-74 sandstone erratic pebble, sample cm 2x2
 G96 04-75 fine breccia erratic pebble, sample cm 2x2.5
 G96 04-76 volcanic bomb erratic pebble, sample cm 5x6, vesicular
 G96 04-77 volcanic bomb erratic pebble, sample cm 3x4, vesicular with clay minerals
 G96 04-78 gneiss erratic pebble, sample cm 4.5x6
 G96 04-79 gneiss erratic pebble, sample cm 3x5
 G96 04-80 granitoid erratic pebble, sample cm 3x4
 G96 04-81 gneiss erratic pebble, sample cm 2.5x3
 G96 04-82 granitoid erratic pebble, sample cm 3.5x4
 G96 04-83 granitoid erratic pebble, sample cm 2.5x4
 G96 04-84 gneiss erratic pebble, sample cm 3x6, fine texture
 G96 04-85 granitoid erratic pebble, sample cm 2.5x5
 G96 04-86 granitoid erratic pebble, sample cm 1.5x2.5
 G96 04-87 granitoid erratic pebble, sample cm 2x3
 G96 04-88 breccia fragments 4-15 cm, like description of sample G9604-61
 G96 04-89 volcanic bomb erratic pebble, sample cm 6x12, vesicular
 G96 05-01 breccia sample cm 4x8, cement by fine sandstone no carbonatic, basaltic or andesitic rounded clasts 1-3 cm
 G96 08-00 sediments sand
 G96 08-01 aphyric basalt sample cm 3x5, rounded, thin isoriented Pl microliths
 G96 08-02 limestone sample cm 3x3, rounded
 G96 08-03 basalt sample cm 3x4x1, Cpx-Pl-Ol porphyric; Ol <1%, size 1 mm, Pl 1%, size 1mm, Cpx 3-4%, size 1-4 mm
 G96 08-04 basalt, dolerite sample cm 5x3x1, high crystallized basalt
 G96 08-05 aphyric basalt sample cm 2x2x3, rare Pl-Ol, Fe-hydroxide bands
 G96 08-06 basalt sample cm 3x3x1, well crystallized basalt, Pl glomeroporphyric, (Ol ?), fine disperse Ti-magnetite
 G96 08-07 basalt sample cm 4x2x1, lightly smoothed, rare Ol porphyric
 G96 08-08 siltstone no acid reactive
 G96 08-09 aphyric basalt sample cm 2x1x1, Fe-hydroxide
 G96 08-10 basalt sample cm 1.5x2x1, altered, carbonatic veins, pyrite, phenocrysts of Pl
 G96 08-11 basalt microphenocrysts Pl-Ol (3%)
 G96 08-12 aphyric basalt sample cm 5x1x1.5, vesicles 15-20%, 0.5-1 mm, little amount of clay minerals on the walls of vesicles
 G96 08-13 aphyric basalt sample cm 2x1x1, wide stretched vesicles 3x8 mm, 20-25%, fluidal texture
 G96 08-14 aphyric basalt sample cm 3x1.5x1, vesicles 30-40%, 1-4 mm, one vesicle filled by sandstone
 G96 08-15 aphyric basalt sample cm 5x1.5x1.5, vesicles 0.2-0.5 mm, 25-30%
 G96 08-16 aphyric basalt sample cm 5x2x2, rare Pl porphyric, magnetite in groundmass, little round vesicles 0.2-1 mm and large amoeboidal vesicles 3-8 mm, 25-30%, on the walls thin diopside patina plus magnetite
 G96 08-17 vesicular glass microphenocrysts of Pl, concentric palagonitization
 G96 08-18 basalt sample cm 4x2x1.5, Pl-Ol porphyric, Cpx
 G96 08-19 basalt sample cm 2x2x2, Pl-Ol-Cpx porphyric, Cpx 0.5-2 mm, 1-2%; Pl up to 10 mm, 25%, Pl include Ol; Ol 1-4 mm, 4-5%, one Ol crystal include spinel; vesicular 0.5-5 mm, 25%
 G96 08-20 aphyric basalt sample cm 4x2.5x1, Pl-(Cpx) macrophenocrysts, vesicles 3-4 mm
 G96 08-21 aphyric basalt sample cm 2x1x1, microvesicles 0.1-0.2 mm, fluidal texture by stretching of vesicles, microphenocrysts of Pl
 G96 08-22 basalt sample cm 3.5x3x2, rare vesicles with heterogeneous distribution
 G96 08-23 basalt sample cm 1x2x3, Pl-Ol-Cpx microphenocrysts, fluidal texture, small vesicles
 G96 08-24 basalt sample cm 1.5, Pl-Ol porphyric, Pl 1-3 mm, 1-2%; Ol 4 mm, 1-2%, vesicles 3 mm, 5%
 G96 08-25 basalt sample cm 1.5, Pl phenocrysts; vesicles 1-8 mm, 25%, Fe-hydroxide alteration
 G96 08-26 basalt sample cm 1x2x2.5, Pl-(Cpx) porphyric, Pl 1-2 mm, vesicles 1-4 mm
 G96 08-27 basalt sample cm 1.5x1.5, Pl-Ol porphyric, Pl 1-2 mm, vesicles 80%
 G96 08-28 basalt sample cm 1.5x1.5, rare Cpx microphenocrysts 1 mm, fine vesicles 20%,
 G96 08-29 basalt sample cm 1.5x1.5, Pl-Ol-Cpx porphyric, Pl 1-4 mm; vesicles 1-5 mm, 50%
 G96 08-30 basalt sample cm 2.5x1.5x1, Pl-Ol-Cpx porphyric; vesicles 1-3 mm, 80%
 G96 08-31 basalt sample cm 2x5, Pl porphyric, Pl 1-3 mm, vesicles 1-3 mm, 70%
 G96 08-32 basalt sample cm 1.5x2.5, Pl-Ol-Cpx porphyric; vesicles 1-2 mm, 50%, pelagic sediment inside vesicles
 G96 08-33 basalt sample cm 2x2x1, Pl porphyric, deep heterogeneous alteration, red colour, magnetite, small vesicles
 G96 08-34 aphyric basalt sample cm 2x2x0.5, altered, high vesicular, Fe-Mn patina
 G96 08-35 aphyric basalt altered, high vesicular, Fe-Mn patina
 G96 08-36 aphyric basalt sample cm 3x2.5x2, vesicles 0.2-3 mm, 60-70%, thin walls sometimes covered by Fe-hydroxide
 G96 08-37 aphyric basalt vesicles 0.2-3 mm, 60-70%, thin walls sometimes covered by Fe-hydroxide

G96 08-38 aphyric basalt sample cm 5x3x2, vesicles 0.2-3 mm, 60-70%, thin walls sometimes covered by Fe-hydroxide
G96 08-39 aphyric basalt vesicles 0.2-3 mm, 60-70%, thin walls sometimes covered by Fe-hydroxide
G96 08-40 basalt sample cm 3x2x1, rounded, Cpx porphyric, diffuse small vesicles and rare big stretched vesicles 1-3 mm
G96 08-41 aphyric basalt sample cm 3x3x1, vesicular with rare Cpx phenocrysts
G96 08-42 aphyric basalt sample cm 3x1.5x1.5, rare Pl phenocrysts, fine diffuse vesicles, 60-70%, rare big vesicles up to 3 mm
G96 08-43 aphyric basalt sample cm 3x3x1.5, heterogeneous diffuse vesicles, rare Pl phenocrysts, fine basaltic hair like needles
G96 08-44 aphyric basalt sample cm 3x1.5, heterogenous vesicles size, fluidal texture, xenoliths 2 mm
G96 08-45 metabasalt sample cm 3x3x2, Pl phenocryst and microliths, chlorite, zeolite
G96 08-46 basalt sample cm 3x2x1, fresh basalt
G96 08-47 basalt sample cm 1x1x2, Pl-Ol porphyric, fresh Ol
G96 08-48 aphyric basalt sample cm 1x0.5x2, fresh basalt
G96 08-49 aphyric basalt sample cm 2x1x0.5, rare Pl phenocrysts, skeletal Ol cryst replaced by iddingsite
G96 08-50 basalt sample cm 3x2x1, Pl-Cpx-(Ol) porphyric basalt, strongly altered, clay minerals in groundmass
G96 08-51 basalt sample cm 3x2x1, strongly altered basalt, Pl porphyric
G96 08-52 metabasalt greenschist facies, Pl porphyric
G96 08-53 dolerite sample cm 3x3x1, aphyric, pyrite
G96 08-54 dolerite sample cm 3x3x1, rare Pl phenocrysts, Qtz vein, foliation
G96 08-55 basalt sample cm 2x1x1, Pl-Ol-Cpx porphyric
G96 08-56 metasomatite sample cm 3x3, chloritic groundmass, Qtz (xenocryst?), altered Pl, Fe hydroxide, xenolite with doleritic structure, amphibole(?)
G96 08-57 rhyolite sample cm 0.5x4x3, effusive acid rock, Qtz
G96 08-58 acid effusive Qtz, Pl, (Cpx), glass groundmass
G96 08-59 acid effusive Qtz, glass groundmass
G96 08-60 acid effusive feldspar crystal 8 mm, on glass rhyolitic groundmass
G96 08-61 acid effusive sample cm 1x1x1, Qtz, glass groundmass
G96 08-62 breccia Fe-Mn crust cement, silt of clay minerals, grains with bimodal size, big rounded grains and little interstitial no rounded grains, clasts of vesicular basalt, acid effusive rocks, and their separated minerals
G96 08-63 breccia like description of sample G9608-62
G96 08-64 breccia like description of sample G9608-62
G96 08-65 breccia like description of sample G9608-62
G96 08-66 breccia like description of sample G9608-62
G96 08-67 breccia like description of sample G9608-62
G96 08-68 breccia like description of sample G9608-62
G96 08-69 breccia like description of sample G9608-62
G96 08-70 breccia glass clasts strongly palagonitized, cemented by Fe-Mn crust
G96 08-71 breccia like description of sample G9608-70
G96 08-72 breccia like description of sample G9608-70
G96 08-73 breccia like description of sample G9608-70
G96 08-74 breccia like description of sample G9608-70
G96 08-75 sandstone sample cm 8x6x3, erratic pebble, Qtz, feldspars, micas, rock clasts, strongly cemented
G96 08-76 sandstone sample cm 4x2x1, erratic pebble, Qtz, feldspars, micas, rock clasts, strongly cemented
G96 08-77 sandstone sample cm 4x2, erratic pebble, Qtz, feldspars, micas, rock clasts, strongly cemented, with layers at high concentration of Fe- hydroxides
G96 08-78 sandstone sample cm 6x4x3, erratic pebble, Qtz vein
G96 08-79 sandstone sample cm 6x3x2, erratic pebble
G96 08-80 sandstone sample cm 3x2x1, erratic pebble, leucocratic Qtz dominant coarse grained sandstone
G96 08-81 siltstone sample cm 3x2x1, erratic pebble, layered with sandstone levels (1-5 mm), carbonatic cement
G96 08-82 siltstone erratic pebble, layered with sandstone levels (1-5 mm), carbonatic cement
G96 08-83 siltstone erratic pebble, layered with sandstone levels (1-5 mm), carbonatic cement
G96 08-84 limestone erratic pebble, stylolite
G96 08-85 quartzite sample cm 7x5x3, erratic pebble
G96 08-86 sandstone sample cm 5x4x1, erratic pebble, Qtz, feldspars, micas, rock clasts, strongly cemented
G96 08-87 schist sample cm 2.5x1.5x0.5, erratic pebble, wavy schistosity, Qtz-Amph-Chl
G96 08-88 schist sample cm 3.5x2.5x0.5, erratic pebble, wavy schistosity, Qtz-Amph-Chl
G96 08-89 metamorphite sample cm 4x1x0.5, erratic pebble, Qtz, feldspars, boudinage of Qtz aggregates, strong deformation
G96 08-90 granitoid sample cm 4x2x0.5, fine texture, erratic pebble
G96 08-91 anorthosite erratic pebble, ore minerals
G96 08-92 gneiss erratic pebble
G96 08-93 granitoid erratic pebble
G96 08-94 granitoid erratic pebble
G96 08-95 granitoid erratic pebble

G96 08-96 Ms-metamorphite erratic pebble
G96 08-97 gneiss erratic pebble
G96 08-98 granitoid erratic pebble
G96 08-99 granitoid erratic pebble
G96 08-n100 granitoid erratic pebble
G96 08-n101 granitoid erratic pebble
G96 08-n102 granitoid erratic pebble
G96 08-n103 glass glass description will be performed more completely on separated database
G96 08-n104 glass glass description will be performed more completely on separated database
G96 08-n105 glass glass description will be performed more completely on separated database
G96 08-n106 glass glass description will be performed more completely on separated database
G96 09-00 sediments sand
G96 09-01 breccia sample cm 30x15x15, clasts made by micropillows, basaltic clasts and hyaloclastite, cemented by Fe-Mn crust, pillows 10-15 cm with quench fractures and chilled margins
G96 09-01a basalt sample cm 10x6x5, Fe-Mn crust
G96 09-01b hyaloclastic breccia covered by Fe-Mn crust, fresh glass clasts (2-10 mm), cemented by palagonitized glass and phillipsite
G96 09-01c pillow basalt like description of sample G9609-01
G96 09-01d pillow basalt like description of sample G9609-01
G96 09-02 pillow basalt sample cm 10x15, chilled margin, glass, quench fractures with phillipsite, PI porphyric, vesicles (0.1-1 mm), 5-10%
G96 09-03 aphyric basalt rare PI porphyric, vesicles 0.1-1 mm
G96 09-04 aphyric basalt sample cm 4x2,5x1.5, lightly rounded, OI microphenocrysts, vesicles 0.1 mm
G96 09-05 aphyric basalt sample cm 5x6x3, smoothed, PI microphenocrysts
G96 09-06 aphyric basalt sample cm 1.5x1.5, lightly smoothed, rare PI-OI phenocrysts
G96 09-07 aphyric basalt sample cm 1.5x1.5x1.5, PI phenocrysts
G96 09-08 dolerite sample cm 3x3x0.5, foliated
G96 09-09 micropillow basalt sample cm 1.5x1.5, Fe-Mn crust, palagonitized glass, variolitic texture, fresh relict of basalt with PI phenocrysts and Fe- hydroxide, vesicles 1-2%
G96 09-10 basalt PI-porphyric, PI size 0.1-1 mm, 1-2 %; OI microphenocrysts, vesicular
G96 09-11 basalt sample cm 6x6x3, OI-Cpx-PI phenocrysts, PI 1-2%, OI-iddingsite 3%, Cpx 2-3%, vesicles (0.5-1 mm), 50%
G96 09-12 basalt sample cm 5x5x2, vesicles (0.2-2 mm), 15-20%; PI porphyric, light alteration patina, vesicular 15-20%, Fe-hydroxide on the vesicle walls
G96 09-13 basalt sample cm 5x4x2, rare Cpx-PI porphyric, OI-phenocrysts surrounded by PI G96 09-14 basalt sample cm 3.5x3x2, smoothed, heterogeneous vesicles size, PI rounded phenocrysts 8-10%, OI 2%
G96 09-15 basalt sample cm 3x3, rounded, rare large vesicles 2x5 mm, stretched, PI-(Cpx) porphyric
G96 09-16 basalt sample cm 1.5x1.5x1, smoothed, vesicles (0.5-3 mm), 10%; diffuse Fe-hydroxide alteration, OI-PI microphenocrysts
G96 09-17 basalt sample cm 2x1.5x1, smoothed, low vesicular PI-Cpx porphyric basalt
G96 09-18 basalt sample cm 4x2x1.5, vesicles (0.5-2 mm), 50%; PI-OI phenocrysts
G96 09-19 basalt sample cm 3x2x1.5, small diffuse vesicles (0.5-2 mm), 50%; PI-OI-Cpx phenocrysts
G96 09-20 basalt sample cm 3x2x2, altered, smoothed, vesicles (0.5-2 mm), 50%; OI-(PI) phenocrysts
G96 09-21 basalt sample cm 2x1.5x1.5, altered, smoothed, small vesicles, 50%; OI-(PI) phenocrysts
G96 09-22 basalt sample cm 3x2x1.5, altered, smoothed, vesicles (0.5-2 mm), 50%; OI-(PI) phenocrysts
G96 09-23 basalt sample cm 2.5x2.5x1, rounded empty vesicles 70%, rare PI phenocrysts
G96 09-24 basalt sample cm 4x2x1.5, smoothed, large stretched vesicles size 4x1 mm; patina of pelagic sediments that sometimes fill up the vesicles
G96 09-25 metagabbro sample cm 6x4x3, smoothed, PI phenoblasts in Chl-Amph groundmass, little pyritic masses, PI up to 7 mm, 50-60%
G96 09-26 metagabbro sample cm 2.5x2x1.5, lightly rounded, size of grains 3-4 mm, PI 50%, Amph-Chl 50%, Ti-magnetite masses
G96 09-27 altered gabbro sample cm 1.5x1.5x1.5, lightly smoothed
G96 09-28 gabbro-dolerite sample cm 6x3x0.5, lightly smoothed, altered
G96 09-29 sandstone sample cm 7x7x4, erratic pebble, carbonatic clasts, fine sand, calcitic veins, abundant Qtz clasts, strongly cemented
G96 09-30 sandstone sample cm 6x4x2.5, erratic pebble, rounded, carbonatic clasts, fine sand, calcitic veins, abundant Qtz clasts, strongly cemented, fine grained dark masses poorly cemented
G96 09-31 sandstone sample cm 3.5x2x1.5, erratic pebble
G96 09-32 sandstone sample cm 3.5x2x1.5, erratic pebble, size of grains like fine sand, abundant calcitic clasts, Qtz
G96 09-33 sandstone sample cm 2x2x1.5, erratic pebble, rounded, Qtz clasts, carbonatic cement
G96 09-34 sandstone sample cm 9x5x2, rounded, erratic pebble
G96 09-35 siltstone sample cm 5x3x2, smoothed, erratic pebble
G96 09-36 siltstone sample cm 3x3x2, lightly smoothed, erratic pebble
G96 09-37 siltstone sample cm 3x3x1.5, rounded, erratic pebble

G96 09-38 siltstone sample cm 3.5x1.5x1.5, lightly smoothed, erratic pebble
G96 09-39 granitoid sample cm 4x3x1.5, erratic pebble
G96 09-40 granitoid sample cm 1.5x1.5x1.5, smoothed, erratic pebble
G96 09-41 garnet metamorphite sample cm 9x9x4, rounded from one side, erratic pebble
G96 09-42 granitoid sample cm 5x4x2, smoothed, erratic pebble
G96 09-43 quartzite sample cm 10x10x6, rounded, erratic pebble
G96 09-44 quartzite sample cm 6x4x2, lightly rounded, erratic pebble
G96 09-45 erratic pebble sample cm 12x9x5, rounded pebble with parallel ice marks
G96 09-46 Qtz-Ms schist sample cm 22x30x9, sericitic metamorphite, erratic pebble
G96 10-01 aphyric basalt sample cm 70x60x50, fresh, Pl microphenocrysts, lightly vesicular
G96 10-02 aphyric basalt sample cm 25x10x6, fresh, Pl microphenocrysts, lightly vesicular
G96 10-03 aphyric basalt sample cm 3x5x6, fresh, lightly vesicular, 1-2%, size of vesicles 0.5 mm
G96 10-04 aphyric basalt sample cm 4x5x7, lightly vesicular, 2-5%, glauconite on the walls of vesicles, xenolite
G96 10-05 aphyric basalt sample cm 3x4x5, fresh, Pl microphenocrysts, vesicular 5%
G96 10-06 basalt sample cm 3x4x5, fresh, Pl porphyric, variolitic texture, few small vesicles
G96 10-07 basalt sample cm 3x4x4, fresh, Pl porphyric, Ol microphenocrysts, variolitic texture, small vesicles, 5-8%
G96 10-08 basalt sample cm 3x4x4, fresh, Cpx-Ol-Pl porphyric, titanomagnetite, few round vesicles (1-3 mm)
G96 10-09 basalt sample cm 3x3x2, fresh, Ol-Pl porphyric, round vesicles (0.1-3 mm)
G96 10-10 aphyric basalt sample cm 4x4x5, altered, Pl microphenocrysts and Fe-hydroxide in groundmass, amoeboidal vesicles, glassy crust
G96 10-11 aphyric basalt sample cm 3x3x4, strongly altered, Pl microphenocrysts and Fe-hydroxide in groundmass, amoeboidal vesicles, glassy crust
G96 10-12 aphyric basalt sample cm 10x6x6, fresh, Pl microphenocrysts in groundmass, little vesicles (0.1-0.5 mm)
G96 10-13 aphyric basalt sample cm 15x7x5, altered, Pl microphenocrysts, Fe-hydroxide few vesicles
G96 10-14 basalt sample cm 15x10x6, altered, well crystallized
G96 10-15 basalt sample cm 9x4x3, fresh, Pl-Ol porphyric, Pl microphenocrysts in groundmass, variolitic texture, little vesicles
G96 10-16 basalt sample cm 15x7x10, altered, Ol porphyric, Cpx, Pl microphenocrysts, variolitic texture, vesicular
G96 10-17 basalt sample cm 12x7x7, fresh, Ol-Pl porphyric, small vesicles, variolitic heterogeneous structure separate by aphyric zones
G96 10-18 basalt sample cm 12x6x10, fresh, Pl-Ol porphyric, Pl size up to 5 mm, acicular Pl microphenocrysts in groundmass
G96 10-19 basalt sample cm 15x7x8, fresh, Ol porphyric, Ol grains up to 4 mm, small vesicles
G96 10-20 basalt sample cm 10x5x7, lightly altered, Ol porphyric, Ol grains up to 5 mm
G96 10-21 basalt sample cm 17x6x7, fresh, Pl-Ol-Cpx porphyric
G96 10-22 basalt sample cm 11x7x6, altered, Ol porphyric, diffuse Fe-hydroxide alteration
G96 10-23 basalt sample cm 6x4x5, lightly altered, Pl-Ol porphyric, variolitic texture, Fe-hydroxide alteration, small vesicles
G96 10-24 basalt sample cm 6x4x5, altered, Ol-Pl porphyric, variolitic texture, Fe-hydroxide alteration, small vesicles, 10%
G96 10-25 basalt sample cm 10x7x7, altered, pillow fragment with glassy crust, Ol porphyric, Fe-hydroxide
G96 10-26 basalt sample cm 8x6x5, lightly altered, Pl-Ol porphyric
G96 10-27 basalt sample cm 3x3x4, altered, Ol-Pl porphyric, diffuse Fe-hydroxide alteration, variolitic texture, lightly vesicular
G96 10-28 basalt sample cm 4x4x1.5, altered, Ol-Pl porphyric, diffuse Fe-hydroxide alteration, variolitic texture, lightly vesicular
G96 10-29 basalt sample cm 5x4x2.5, strongly altered, dark altered Pl, diffuse Fe-hydroxide alteration, big rounded vesicles filled by zeolites
G96 10-30 basalt sample cm 10x7x7, deeply altered, variolitic texture, lightly vesicular, rounded vesicles (0.5-2 mm) filled by zeolites pink coloured
G96 10-31 basalt sample cm 12x7x4, altered, Ol porphyric, Ti-magnetite, Fe-hydroxide, heterogeneous distribution of vesicles 20%, vesicles size 1-5 mm
G96 10-32 basalt sample cm 12x7x5, altered, vesicles (4-8 mm), 20%, filled up by zeolites, Fe-hydroxide in groundmass
G96 10-33 basalt sample cm 7x4x5, altered, vesicles (4-8 mm), 20%, filled up by zeolites, Fe-hydroxide in groundmass
G96 10-34 basalt sample cm 7x4x4, altered, vesicles (4-8 mm), 20%, filled up by zeolites, Fe-hydroxide in groundmass
G96 10-35 basalt sample cm 6x4x3, altered, Pl microliths and Fe-hydroxide in groundmass, large vesicles filled by zeolites
G96 10-36 basalt sample cm 6x5x3, deeply altered, Pl porphyric, Fe-hydroxide in groundmass, little vesicular, glassy crust
G96 10-37 glasses glass description will be performed more completely on separated database
G96 10-38 glasses glass description will be performed more completely on separated database
G96 11-01 aphyric basalt sample cm 70x40x30, fresh pillow sector, heterogeneous distribution of vesicles, 15-20%, massive non vesicular core, glassy crust, Fe-Mn patina on the surface
G96 11-02 aphyric basalt sample cm 40x30x20, partly altered with Fe-hydroxide, Fe-Mn patina on the surface, rare Ol phenocrysts, heterogeneous distribution of vesicles (2-3 mm)
G96 11-03 basalt sample cm 45x15x15, partly altered by Fe-hydroxide, Ol-Pl porphyric, variolitic texture, vesicles (0.1-3 mm), rare glass fragments
G96 11-04 aphyric basalt sample cm 60x30x10, fresh, vesicles (0.1-5 mm) sometimes with Fe-hydroxide on the walls

G96 12-01 aphyric basalt sample cm 16x10x10, fresh, flow lava fragment with glassy crust, vesicular 20%, bimodal size of vesicles, small rounded 1-4 mm, big stretched vesicles 0.5x5 cm that show fluidal texture, subparallel to the surface, hematitic alteration on vesicles walls

G96 12-02 aphyric basalt sample cm 12x11x7, like G9612-01 plus big amoeboidal vesicles, contraction cracks

G96 12-03 aphyric basalt sample cm 14x10x10, like G9612-02

G96 12-04 aphyric basalt sample cm 16x8x7, like G9612-02, red concretions probably due to fumarolic activity

G96 12-05 aphyric basalt sample cm 14x10x8, Pl microliths, deeper portion of the flow lava, less vesicular than G9612-01/04, small undeformed vesicles 1-5 mm

G96 12-06 aphyric basalt sample cm 18x10x10, like G9612-01

G96 12-07 aphyric basalt sample cm 14x7x5, like G9612-01 plus very elongated vesicles with strong fluidal texture

G96 12-08 aphyric basalt sample cm 8x7x5, like G9612-01 plus Pahoe-hoe structures on lava's surface, microcorrugated surface, fresh glassy crust

G96 12-09 aphyric basalt sample cm 7x7x6, like G9612-08 plus very big vesicles subparallel to lava's surface, up to 6-8 cm

G96 12-10 aphyric basalt sample cm 7x7x5, like G9612-09

G96 12-11 aphyric basalt sample cm 7x6x5, like G9612-09

G96 12-12 aphyric basalt sample cm 6x5x4, like G9612-09

G96 12-13 aphyric basalt sample cm 7x6x4, like G9612-09

G96 12-14 aphyric basalt sample cm 7x7x2, like G9612-09

G96 12-15 aphyric basalt sample cm 8x7x2, like G9612-09

G96 12-16 aphyric basalt sample cm 8x4x3, like G9612-09, few fragments

G96 12-17 aphyric basalt few fragments, medium size: 4 cm, like G9612-09

G96 12-18 aphyric basalt sample cm 6x4x3, vesicular 30%

G96 12-19 basalt sample cm 6x6x5, Pl-Ol-Cpx porphyric, rounded vesicles 15-20%

G96 12-20 aphyric basalt fragment of volcanic bomba, high vesicular with bimodal size, fine diffuse vesicles 0.5-2 mm, rare big vesicles 1-3 cm

G96 12-21 aphyric basalt like G9612-20

G96 12-22 aphyric basalt like G9612-20

G96 12-23 aphyric basalt like G9612-20

G96 12-24 aphyric basalt like G9612-20

G96 12-25 aphyric basalt like 12-01 with superficial alteration by Fe-hydroxide

G96 12-26 aphyric basalt like G9612-25

G96 12-27 breccia basaltic clasts, 2-10 mm, cemented by Fe- hydroxide

G96 12-28 breccia like G9612-27

G96 12-29 metasomatite sample cm 6x3x2, highly vesicular altered basalt, groundmass replaced by white soft mineral, vesicles filled probably with the same mineral but we can see clay minerals near walls, no HCl reaction

G96 12-30 breccia sample cm 6x5x5, completely altered basalt clasts, fresh basalt clasts with vesicles filled up by secondary minerals, clasts size 5-15 mm

G96 12-31 breccia like G9612-30, but basalt clasts are more fresh and more wide size distribution, vesicles partially filled

G96 12-32 breccia like G9612-31, but with smaller clasts

G96 12-33 breccia like G9612-31 but more altered clasts, one fresh clast, small pyrite grains

G96 12-34 breccia like G9612-30 plus chlorite alteration of basaltic clasts, pyrite grain 0.3 mm, high cement rate

G96 12-35 metasomatite altered basalt

G96 13-00 sediment sand

G96 13-01 aphyric basalt sample cm 20x30x15, fresh, fragment of lava with complex flow texture, glassy crust is present on surface and on internal structures, Pl microphenocrysts, rare Pl phenocrysts sometimes intergrow with Ol, lightly heterogeneous vesicular 1-2%

G96 13-02 aphyric basalt round sample cm 17 diameter, like G9613-01 more developed glassy portion

G96 13-03 aphyric basalt sample cm 20x10x10, pillow fragment, lightly diffuse vesicular, high vesicular layer under glassy crust, big cavity with Fe-hydroxide deposits

G96 13-04 aphyric basalt sample cm 25x20x15, fresh, like G9613-03

G96 13-05 aphyric basalt sample cm 20x16x15, like G9613-03, plus rare Pl phenocrysts

G96 13-06 aphyric basalt sample cm 15x15x10, like G9613-03

G96 13-07 aphyric basalt sample cm 15x10x10, like G9613-03, with complex fluidal structures like cord lavas

G96 13-08 aphyric basalt sample cm 15x15x10, like G9613-03

G96 13-09 aphyric basalt sample cm 13x6x6, like G9613-03

G96 13-10 aphyric basalt sample cm 5x4x4, like G9613-03 with rare Pl phenocrysts, microcorrugated surface

G96 13-11 aphyric basalt sample cm 11x8x5, like G9613-01, with rare Pl phenocrysts

G96 13-12 aphyric basalt sample cm 10x9x6, like G9613-01, with rare Pl phenocrysts, Fe-hydroxide

G96 13-13 aphyric basalt sample cm 8x8x6, like G9613-01, with rare Pl phenocrysts

G96 13-14 aphyric basalt sample cm 7x7x5, like G9613-01, with rare Pl phenocrysts

G96 13-15 aphyric basalt sample cm 9x8x5, like G9613-01

G96 13-16 aphyric basalt sample cm 8x6x4, like G9613-15

G96 13-17 basalt sample cm 6x5x2, Cpx-Pl porphyric, Fe-hydroxide, high vesicular

G96 14-00 sediment sand
G96 14-01 aphyric basalt sample cm 15x10x10, fresh, vesicles 20%, 5 mm
G96 14-02 aphyric basalt sample cm 10x7x5, like G9614-01
G96 14-03 aphyric basalt sample cm 10x5x5, pillow fragment, vesicles (1-3 mm) 15%, partially filled by clay minerals, vesicular rate increase coreward
G96 14-04 aphyric basalt sample cm 10x5x5, pillow fragment, empty vesicles (1-3 mm), 10%
G96 14-05 aphyric basalt sample cm 6x5x4, pillow fragment, empty vesicles (1-3 mm), 15-20%
G96 14-06 aphyric basalt sample cm 6x4x3, like G9614-04
G96 14-07 aphyric basalt sample cm 12x10x5, like G9614-04, with vesicles up to 7 mm
G96 14-08 aphyric basalt sample cm 12x10x5, pillow fragment, small empty vesicles, up to 2 mm, 10%
G96 14-09 aphyric basalt sample cm 7x5x4, like G9614-08
G96 14-10 aphyric basalt sample cm 8x8x5, like G9614-08
G96 14-11 aphyric basalt sample cm 13x12x6, like G9614-08
G96 14-12 aphyric basalt sample cm 7x5x5, like G9614-08
G96 14-13 aphyric basalt sample cm 14x10x5, like G9614-08 with rare PI phenocrysts, fluidal texture shown by elongation of vesicles, these are partially filled by clay minerals
G96 14-14 aphyric basalt sample cm 7x5x5, fresh, pillow fragment, vesicles (1 mm) 10%, glass and basaltic clasts cemented by Fe-Mn crust on extern surface
G96 14-15 aphyric basalt sample cm 11x5x6, rounded, like G9614-14
G96 14-16 aphyric basalt sample cm 10x10x4, rounded, like G9614-14
G96 14-17 aphyric basalt sample cm 10x10x5, microvesicular, up to 0,5 mm
G96 14-18 basalt sample cm 15x15x10, PI porphyric, phenocryst (2-5 mm) 3%, round empty vesicles (1-3 mm) 20-35%
G96 14-19 basalt sample cm 30x20x20, like G9614-18, probable OI
G96 14-20 aphyric basalt sample cm 15x15x10, well crystallized, vesicular 5-10%, vesicles with different size and shape, small round ones 1-5 mm, big amoeboid ones, alteration minerals on vesicles walls
G96 14-21 dolerite sample cm 15x15x15, fresh core surrounded by large alteration band with Fe-hydroxide, (6-7 cm)
G96 14-22 basalt sample cm 15x13x8, like G9614-08, OI-(Cpx) porphyric, sometimes OI is altered, vesicles (0.1-3 mm) 10%
G96 14-23 tufo? sample cm 15x13x7, clasts of variolitic basalt, glass, zeolites
G96 14-24 basalt sample cm 33x29x23, altered, PI porphyric, large diffuse Fe- hydroxide replacement, vesicles (8%) filled by phillipsite, clasts of basalt and glass cemented upon surface
G96 14-25 aphyric basalt sample cm 12x15x5, altered, big vesicles with fibrous zeolites
G96 14-26 aphyric basalt sample cm 10x9x5, altered, high vesicular with big vesicles up to 2 cm, rare glass
G96 14-27 aphyric basalt sample cm 7x5x3, like G9614-26
G96 14-28 glasses glass description will be performed more completely on separated database
G96 14-29 aphyric basalt sample cm 5x4x4, erratic basalt, rounded, 30-40% vesicular with bimodal size of vesicles, small ones 0.1-0.5 mm, big ones 1-5 mm, Fe-hydroxide patina on walls of vesicles
G96 14-30 aphyric basalt sample cm 5x5x4, like G9614-29, but 50-60% vesicular
G96 14-31 aphyric basalt sample cm 4x3x2, like G9614-29
G96 14-32 basaltic pumice sample cm 6x5x4, rounded, 80% vesicular
G96 14-33 breccia sample cm 6x4x3, lightly cemented, sharp jagged clasts of very high vesicular (80%) fresh vitro basalt (1-10 mm), size of vesicles 0.1-0.5 mm, cemented by alteration products
G96 14-34 breccia sample cm 2x1x1, fragments, like G9614-33
G96 14-35 breccia sample cm 5x3x2, like G9614-33, rounded, smaller clasts (0.5-3 mm)
G96 14-36 breccia sample cm 6x5x3, one basaltic clast, size 2-3 cm, plus vesicular glass clasts, size 1-10 mm, 10-15% vesicular, fresh glass, cement composed by alteration products of glass
G96 14-37 tufo? sample cm 4x4x3, small clasts of fresh basaltic glasses, volcanic ash like
G96 14-38 tufo? sample cm 3x2x1, like G9614-37, smaller dimension of clasts
G96 14-39 dolerite sample cm 4x3x2, rounded, erratic pebble, OI replaced by iddingsite, rare big grains of PI
G96 14-40 erratics 7 samples of different kind: sandstone, schist, gneiss, granitoid
G96 15-01 basalt sample cm 20x15x15, big pillow fragment, thin Fe-Mn crust, fresh glass, PI porphyric, PI grains up to 5 mm, 10-15%, vesicles 0.3-1 mm
G96 15-02 basalt sample cm 15x10x10, pillow fragment with thin glassy crust, thin Fe-Mn patina, rare PI phenocrysts, big vesicles
G96 15-03 basalt sample cm 12x5x4, like G9615-01, PI 3-5%, size 0.3-2 mm
G96 15-04 basalt sample cm 29x8x8, like G9615-01
G96 15-05 basalt sample cm 12x10x8, like G9615-01, triangular pillow sector, big cavities
G96 15-06 basalt sample cm 12x7x5, like G9615-01
G96 15-07 basalt sample cm 15x10x8, like G9615-01
G96 15-08 basalt sample cm 10x7x5, like G9615-01
G96 15-09 basalt sample cm 15x5x5, like G9615-01
G96 15-10 aphyric basalt sample cm 12x5x5, flow lava fragment, with breccia zone including basaltic clasts, flow structures Pahoe-hoe like
G96 15-11 aphyric basalt sample cm 30x10x8, more vesicular lava fragment
G96 15-12 aphyric basalt sample cm 25x10x8, like G9615-10

G96 15-13 aphyric basalt sample cm 20x10x7, flow lava fragment, rare PI phenocrysts, 15% vesicular, size of vesicles 0.5-3 mm

G96 15-14 glass glass description will be performed more completely on separated database

G96 15-15 glass glass description will be performed more completely on separated database

G96 15-16 glass glass description will be performed more completely on separated database

G96 15-17 glass glass description will be performed more completely on separated database

G96 15-18 glass glass description will be performed more completely on separated database

G96 15-19 glass glass description will be performed more completely on separated database

G96 15-20 glass glass description will be performed more completely on separated database

G96 15-21 glass glass description will be performed more completely on separated database

G96 15-22 glass glass description will be performed more completely on separated database

G96 15-23 aphyric basalt flow lava fragments with fresh glass

G96 15-25 aphyric basalt sample cm 16x12x8, like G9615-24 with double glassy crust inside and on the surface

G96 15-26 aphyric basalt sample cm 6x12x5, like G9615-24

G96 15-27 aphyric basalt sample cm 6x6x5, like G9615-24

G96 16-01 basalt sample cm 10x8x8, PI-OI porphyric, PI and rare big PI-OI glomeroporphyric, rounded with Fe-Mn crust, vesicles size 0.1-3 mm with fluidal deformation, round vesicles filled by phyllipsite, irregular ones have clay minerals and Fe-hydroxides on walls

G96 16-02 aphyric basalt sample cm 10x6x4, PI-OI microphenocrysts, OI size 0.1-0.3 mm homogeneously distributed in groundmass, Fe-Mn crust, vesicular and variolitic texture, bimodal size of vesicles, small up to 0.5 mm, big 1 to 3 mm, generally empty

G96 16-03 aphyric basalt sample cm 4x3x2, sharpened, no Fe-Mn crust, fluidal texture shown by elongation of vesicles, intensive alteration of Fe-hydroxides (atypic)

G96 16-04 aphyric basalt sample cm 6x5x2, rare OI-PI microphenocrysts, thin Fe-Mn crust (1 mm), high vesicular, 50% filled by phyllipsite,

G96 16-05 basalt sample cm 5x3x2, OI-PI porphyric, rare PI phenocrysts, size 2 mm, thin Fe-Mn crust, 20% vesicular, size 1-2 mm, vesicles partially filled by phyllipsite

G96 16-06 basalt sample cm 4x3x2, OI-PI porphyric, thin Fe-Mn crust, 30% vesicular, size 2-3 mm, vesicles partially filled by phyllipsite,

G96 16-07 basalt sample cm 4x3x2, OI-PI porphyric, 50 % vesicular

G96 16-08 pumice sample cm 2x2x1.5, PI-Cpx porphyric, vitrobasalt, vesicular brown glass, Cpx size 1 mm, PI size 4 mm

G96 16-09 pumice sample cm 3x2x1.5, fluidal texture, basaltic xenolites, rare Qtz phenocrysts, pale brown glass

G96 16-10 breccia sample cm 4x3x2 with clasts of basalt and deeply altered glasses, cemented by products of alteration

G96 16-11 breccia sample cm 6x4x4, like G9616-10, with big strongly altered clasts, inside cement we can see grains of PI, OI and Qtz (?)

G96 16-12 breccia sample cm 5x3x3, like G9616-10, with small acid effusive clasts and Fe-Mn minerals

G96 16-13 breccia sample cm 3x2x2, like G9616-12

G96 16-14 breccia sample cm 5x3x2, like G9616-12, sand granulometry

G96 16-15 metasomatite sample cm 8x3x2, erratic pebble, Qtz

G96 16-16 gneiss sample cm 20x15x10, erratic pebble, Qtz, mica

G96 17-01 basalt sample cm 20x10x7, pillow fragment with fresh glassy crust 3-6 mm, rare PI grains size (0.3-3 mm), 2,5%, vesicles 5% up to 4 mm, groundmass partially altered

G96 17-02 aphyric basalt sample cm 7x5x4, rounded, part of volcanic bomb, covered by 1 mm glass

G96 17-03 hyaloclastic breccia few pieces of breccia with glass

G96 17-04 hyaloclastic breccia like G9617-03

G96 17-05 aphyric basalt sample cm 10x8x8, centimetric cleavage, Fe-hydroxide along fractures, chlorite

G96 17-06 aphyric basalt sample cm 17x15x15, vesicles (0.2-0.5 mm) 1-3%, empty, Fe-hydroxide on walls, Fe-hydroxide alteration on the external side of sample

G96 17-07 aphyric basalt sample cm 10x8x6, fresh

G96 17-08 aphyric basalt sample cm 8x8x6, like G9617-07

G96 17-09 aphyric basalt sample cm 10x10x8, like G9617-05 with chilling zone with glass replaced by clay minerals

G96 17-10 aphyric basalt sample cm 8x6x5, like G9617-05

G96 17-11 aphyric basalt sample cm 8x7x5, like G9617-05

G96 17-12 aphyric basalt sample cm 25x20x15, pillow fragment, calcitic and Chl veins developed along cleavage fractures, microlithic structure, sulphides on fractures and smaller in groundmass

G96 17-13 aphyric basalt sample cm 25x25x20, like G9617-12 with chilling zone, variolitic texture, groundmass completely replaced by Chl

G96 17-14 aphyric basalt sample cm 20x20x10, pillow fragment, mandelstein type, vesicles filled up by Chl; calcite, Chl and sulphides developed on contraction cracks and cleavage, glassy crust replaced by brown clay minerals

G96 17-15 aphyric basalt sample cm 10x15x15, pillow fragment, like G9617-12

G96 17-16 aphyric basalt sample cm 12x10x10, pillow fragment, like G9617-12

G96 17-17 aphyric basalt sample cm 10x10x8, like G9617-05

G96 17-18 aphyric basalt sample cm 10x8x7, like G9617-12, higher amount of sulphides (Bornite)

G96 17-19 aphyric basalt sample cm 18x11x6, pillow fragment, like G9617-05

G96 17-20 aphyric basalt sample cm 12x8x6, like G9617-12, chalcopyrite ore
G96 17-21 aphyric basalt sample cm 6x6x4, pillow fragment, like G9617-12
G96 17-22 aphyric basalt sample cm 5x4x3, pillow fragment, like G9617-12
G96 17-23 aphyric basalt sample cm 8x6x4, like G9617-12, with sulphides in calcitic vein
G96 17-24 aphyric basalt sample cm 10x8x5, like G9617-12, with sulphides
G96 17-25 aphyric basalt sample cm 6x5x4, like G9617-12, with thin sulphides ore along branched fractures
G96 17-26 aphyric basalt sample cm 7x6x2, like G9617-12, with sulphides in groundmass
G96 17-27 aphyric basalt sample cm 8x6x5, like G9617-12, with cleavage and sulphides in groundmass
G96 17-28 aphyric basalt sample cm 9x7x5, like G9617-12
G96 17-29 basalt sample cm 30x17x8, cleavage fractures, intensively chloritized cooling glass zone, randomly oriented fractures filled by calcitic veins
G96 17-30 metasomatite sample cm 6x4x4, metasomatized glassy crust, glass completely replaced by Chl
G96 17-31 basalt sample cm 15x10x6, altered, mandelstein type, vesicles filled up by zeolites
G96 17-32 breccia sample cm 8x6x4, clasts composed by basalts, glass fragments, cemented by palagonite and Fe-hydroxide, probable hyaloclastite
G96 17-33 aphyric basalt sample cm 6x5x5, like G9617-12 with veins with dark minerals, cleavage
G96 17-34 basalt sample cm 7x7x5, mandelstein type, highly vesicular 10-15%, vesicles size 1-2 mm filled up by Chl
G96 17-35 metasomatite sample cm 6x6x6, wide Qtz cemented, Chl clasts probably from altered basalt 2-30 mm, sulphides masses in Chl and Qtz
G96 17-36 basalt sample cm 7x6x1.5, rare Ol porphyric (1mm), 1%, 5-7% vesicular, round empty vesicles 1-3 mm, exotic similar to Spiess basalts
G96 17-37 basalt sample cm 5x3x3, Pl-Cpx porphyric, Cpx 1%, 1-2 mm, Pl 2-3%, 2-6 mm, 70% vesicular, bimodal size of vesicles 0.1-0.5 mm; 1-3 mm, similar to Spiess basalt
G96 17-38 quartzite erratic
G96 18-00 sediment sand
G96 18-01 basalt sample cm 2x4x2, Pl porphyric (2-10 mm) 5-8%, vesicles 70% with bimodal size distribution 0.5-1.5 mm and 2-5 mm, Fe-hydroxides on walls of vesicles,
G96 18-02 basalt sample cm 5x7x1, like G9618-01, cooling crust, diffuse palagonitization on the surface
G96 18-03 basalt sample cm 5x4x1, like G9618-02
G96 18-04 basalt sample cm 4x3x1, like G9618-02
G96 18-05 basalt sample cm 3x2x1, like G9618-02
G96 18-06 basalt fragments, like G9618-02
G96 18-07 basalt sample cm 2x1x0.5, Pl porphyric
G96 18-08 siltstone sample cm 4x3x2
G96 18-09 siltstone sample cm 8x4x4
G96 19-00 sediment sand
G96 19-01a basalt sample cm 15x15x10, Pl-Ol porphyric, Pl 10% (1-4 mm), lightly altered, glassy palagonitized crust covered by Fe-Mn crust, thickness 1-1.5 cm
G96 19-01b basalt sample cm 15x10x5, Pl porphyric, like G9619-01a
G96 19-01c basalt sample cm 7x5x4, rare Pl porphyric, empty vesicles, 3%
G96 19-02 basalt sample cm 3x2x2, Pl porphyric like G9619-01c, Pl 10% sometimes altered, rare Ol phenocrysts
G96 19-03 basalt sample cm 3x2x1, altered
G96 19-04 basalt sample cm 2x1x1.5, altered, vesicular
G96 19-05 basalt sample cm 5x5x4, rounded, vesicular, Cpx-Ol-Pl porphyric
G96 19-06 basalt sample cm 4x3x2, Ol-Cpx-Pl porphyric
G96 19-07 basalt sample cm 4x3x2, Ol-Cpx-Pl porphyric
G96 19-08 basalt sample cm 3x3x2, Pl porphyric, Pl 7-10%, vesicular, altered
G96 19-09 basalt sample cm 3x4x1.5, rare Cpx-Pl porphyric, vesicular
G96 19-10 aphyric basalt sample cm 5x7x4, fresh, vesicular
G96 19-11 aphyric basalt sample cm 5x5x7, fresh, vesicular
G96 19-12 aphyric basalt sample cm 3x2x1, fresh, vesicular
G96 19-13 aphyric basalt sample cm 2x2x1, fresh, vesicular, rare Pl phenocrysts
G96 19-14 aphyric basalt sample cm 2x2x1, fresh, vesicular, rare Pl phenocrysts
G96 19-15 basalt sample cm 4x3x0.5, Pl-Cpx porphyric, vesicular
G96 19-16 aphyric basalt few small pieces like G9619-13
G96 19-17 Fe-Mn crust few small pieces
G96 19-18 basalt sample cm 6x5x1.5, Pl-Ol Cpx porphyric, inclusions of Ol in Pl grains, highly vesicular
G96 19-19 basalt sample cm 4x3x2, Cpx-Pl porphyric, vitrobasalt with pale brown glass, vesicular 60-70%, size of vesicles 0.5-1 mm
G96 19-20 basalt sample cm 3x2x1.5, like G9619-19
G96 19-21 aphyric basalt sample cm 3x2x1, Pl-rare Cpx porphyric, vitrobasalt with pale brown glass, vesicular 60-70%, size of vesicles 0.5-1 mm
G96 19-22 basalt sample cm 3x2x1.5, altered, very fine texture, with globes of Qtz, epidote, Chl, to form a paragenesis probably replacing phenocrysts, sometimes in veins

G96 19-23 basalt sample cm 4x3x2, altered, PI porphyric, smectite replace groundmass

G96 19-24 erratics 3 samples of sandstone and siltstone, rounded, 4-5 cm, with calcitic veins and sedimentary structures

G96 19-25 erratics 3 samples of quartzite, gneiss, granitoid, rounded, 4-5 cm

G96 20-00 sediments sand

G96 20-01 basalt sample cm 20x12x15, Ol porphyric (2-3 mm), PI glomeroporphyric, Ol and PI intergrowt, probable spinel inside Ol, lightly vesicular,

G96 20-02 basalt sample cm 20x15x15, PI-Ol porphyric, with glassy band thickness 5 mm, and thick Fe-Mn crust, thickness 2 cm

G96 20-03 basalt sample cm 15x12x12, Ol-PI porphyric, size of grains up to 8-10 mm, lightly vesicular, thick Fe-Mn crust

G96 20-04 basalt sample cm 20x12x10, Ol-PI glomeroporphyric, grains up to 1.5 cm, dark mineral, may be spinel, in grains and in groundmass, size 2 mm, thick Fe-Mn crust

G96 20-05 basalt sample cm 15x10x12, like G9620-04

G96 20-06 basalt sample cm 14x10x8, like G9620-03 with more crystallized groundmass

G96 20-07 basalt sample cm 16x15x10, Ol-PI porphyric, cleavage fractures with clay minerals and pelagic sediments along fractures, Fe-Mn crust

G96 20-08 basalt sample cm 6x7x7, Ol-PI porphyric, pillow fragment with thin glassy crust quite fresh

G96 20-09 basalt sample cm 20x10x10, Ol-PI porphyric, fresh glassy crust 5-7 mm, with 2 mm palagonitized band

G96 20-10 aphyric basalt sample cm 12x12x10, thick Fe-Mn crust

G96 20-11 aphyric basalt sample cm 15x10x7, well crystallized, lightly vesicular, thick Fe-Mn crust

G96 20-12 aphyric basalt sample cm 18x10x7, thick Fe-Mn crust

G96 20-13 basalt sample cm 10x8x7, like G9620-01

G96 20-14 basalt sample cm 12x7x5, like G9620-04, plus big PI glomeroporphyric grain surrounded by Ol, size 1 cm, Ol microphenocrysts

G96 20-15 basalt sample cm 15x10x10, rare PI-Ol phenocrysts, Fe-Mn crust 1-2 cm

G96 20-16 basalt sample cm 15x6x6, PI-Ol porphyric, ore mineral mass, 0.5x1.5 cm intergrowt with PI

G96 20-17 basalt sample cm 7x6x5, PI-Ol glomeroporphyric, 1 cm, dark minerals (Cpx, spinel)

G96 20-18 aphyric basalt sample cm 8x7x6, like G9620-10

G96 20-19 aphyric basalt sample cm 10x8x7, rare PI-Ol phenocrysts

G96 20-20 aphyric basalt sample cm 16x10x8, rare PI phenocrysts, cleavage fractures with Fe-hydroxide alteration

G96 20-22 basalt few fragments, size 2-3 cm, like G9620-21

G96 20-23 basalt sample cm 25x25x25, rare Cpx-PI porphyric, vitrobasalt, high vesicular, pumice-like structure

G96 20-24 basalt sample cm 3x2x1, rounded, vitrobasalt, like G9620-23

G96 20-25 basalt sample cm 3x2x1, PI porphyric, round vesicles 1-5 mm, 50-60%

G96 20-26 aphyric basalt sample cm 3x1,5x1,5, strongly altered red sample by developing of Fe-hydroxide, 70-80% vesicular, vesicle size 0.5-1 mm

G96 20-27 aphyric basalt sample cm 2x2x1.5, PI porphyric, 1-3%, strongly altered red sample by developing of Fe-hydroxide, 70-80% vesicular, vesicle size 0.5-1 mm

G96 20-28 pumice sample cm 5x1.5x1, acid effusive, pumice, one dark euhedral xenocryst 8 mm

G96 20-29 sandstone sample cm 20x12x12, lightly cemented sandstone, probably formed in situ, sharp clasts of Qtz, PI (0.5-1 mm), cemented by clay minerals and Fe-hydroxide

G96 20-30 erratic pebble sample cm 4x4x5, Qtz and PI phenocrysts, sulphides

G96 20-31 erratic gabbro sample cm 6x5x4, Amph-Qtz, quartz and PI veins

G96 20-32 erratic dolerite sample cm 6x4x3

G96 20-33 sandstone 3 samples of sandstone, 2 dark, 1 red

G96 20-34 quartzite 30x15x15, quartzitic sandstone, clast size 0.2-1 mm

G96 20-35 gneiss sample cm 20x15x15, garnet gneiss

G96 20-36 gneiss sample cm 20x15x10, feldspars-biotite gneiss

G96 20-37 gneiss sample cm 15x10x8, biotite-feldspar-garnet gneiss

G96 20-38 gneiss sample cm 15x10x8, Qtz-Bt

G96 21-01 aphyric basalt sample cm 12x10x5, altered, heterogeneous vesicular, 0.1-1 mm, 10-15%, Fe-Mn crust

G96 21-02 aphyric basalt sample cm 6x4x3, lightly altered, heterogeneous vesicular, size of vesicles 0.1-1 mm. probable pyrite in vesicles

G96 21-03 basalt sample cm 5x3x3, Ol-PI porphyric, highly vesicular, size of vesicles 1-2 mm

G96 21-04 basalt sample cm 7x5x4, fresh, PI-Ol porphyric, Fe-Mn patina, PI (0.3-0.5 mm), 15%, Ol (0.3-0.5 mm), 5-7%

G96 21-05 aphyric basalt sample cm 11x9x7, fractured, altered, PI microphenocrysts, Fe- hydroxides, Fe-Mn crust thickness 1-1.5 cm

G96 21-06a aphyric basalt sample cm 24x17x8, lightly altered, PI microphenocrysts, lightly vesicular, round vesicles 0.5 mm, small Fe-Mn crust

G96 21-06b aphyric basalt sample cm 10x7x3, altered, PI microphenocrysts, Fe-hydroxides, Fe-Mn crust

G96 21-07 aphyric basalt sample cm 2x1.5x1.5

G96 21-08 basalt sample cm 3x1.5x1.5, altered, PI-Ol porphyric, Ol sometimes altered, lightly vesicular, vesicles up to 3 mm, PI (0.5-2 mm), 10-15%, Fe-hydroxides

G96 21-09 basalt sample cm 3x2x2, altered, PI porphyric, Fe-hydroxides, Fe-Mn crust thickness 1,5 cm

G96 21-10 basaltic breccia sample cm 12x9x9, Fe-Mn crust thickness 1 cm, clasts of aphyric basalt with PI microphenocrysts, lightly vesicular, very small vesicles

G96 21-11 aphyric basalt sample cm 9x6x5, like G9621-10

G96 21-12 aphyric basalt sample cm 6x5x3, like G9621-10

G96 21-13 gabbro dolerite (e-Mn crust, PI replaced by Cpx, PI 2-4 mm)

G96 21-14 sandstone sample cm 7x5x3, rounded pebble

G96 21-15 metasomatite sample cm 4x3x1.5, Fe-Mn patina

G96 21-16 Fe-Mn crust

G96 22-01 aphyric basalt sample cm 20x10x10, fresh pillow fragment, lamellar shaped OI microphenocrysts, highly vesicular, 20-25%, round empty vesicles size 0.5-1.5 mm

G96 22-02 aphyric basalt sample cm 20x10x10, like G9622-01, with cooling zone with glassy crust, thickness 5 mm, superficial palagonitization, 1 mm

G96 22-03 aphyric basalt sample cm 15x10x8, like G9622-01

G96 22-04 aphyric basalt sample cm 4x3x2, fresh, vesicular 30%, size of vesicles 0.5-2 mm

G96 22-05 aphyric basalt sample cm 5x4x3, like G9622-04

G96 22-06 basalt sample cm 5x4x2, PI-OI porphyric, OI (0.5-1 mm) 1%, PI (1-3 mm) 1-2% ; 5-10% vesicular, empty vesicles 0.5-7 mm

G96 22-07 aphyric basalt sample cm 2x1.5x1.5, 70-80% vesicular heterogeneous distribution and size, glassy pale brown groundmass

G96 22-08 dacite sample cm 6x5x4, pale grey groundmass, PI-Qtz-Amph, Fe-Mn patina

G96 22-09 metasomatite sample cm 3x2x1, Qtz, sulphides

G96 22-10 limestone sample cm 5x4x1, flattened

G96 22-11 metasomatite sample cm 4x4x1.5, rounded, Qtz

G96 22-12 siltstone sample cm 5x4x2

G96 23-01 basaltic breccia sample cm 4x2x2, clasts of fresh and palagonitized basaltic glass, small grains 1-4 mm, clasts of PI and basalt, sample covered by Fe-Mn crust thickness 1 cm

G96 23-02 hyaloclastic breccia sample cm 8x6x2, palagonitized glass grains 1-4 mm, little amount of fresh glass in the middle of alteration zone, thick Fe-Mn crust 1 cm

G96 23-03 Fe-Mn crust 2 pieces 11x5x1.5; 6x7x1.5

G96 24-01 basalt sample cm 25x15x15, fresh pillow fragment, PI-OI porphyric, PI (1-5 mm), 5%, rare OI grains intergrowt with PI, lightly vesicular 5-7%, size of vesicles 1 mm

G96 24-02 basalt sample cm 30x20x15, fresh triangular pillow sector, PI-OI-Cpx porphyric, PI (8 mm) 5-7% with inclusions of glass (or spinel), Cpx 1 grain growt with PI, heterogeneous distribution of phenocrysts, concentrate in glassy crust, 7% vesicular

G96 24-03 basalt sample cm 25x20x15, like G9624-02, more vesicular up to 10%, 2 mm

G96 24-04 basalt sample cm 25x25x10, big PI glomeroporphyric grains 15 mm, intergrowt with big Cpx grains 5 mm, and OI 2-3 mm, PI 10-15%, rare vesicles

G96 24-05 basalt sample cm 30x20x10, like G9624-04 less developed PI phenocrysts, up to 10 mm, 10%, less amount of OI and Cpx, OI grain with glass inclusion, vesicles 2%, 5 mm,

G96 24-06 basalt sample cm 25x20x10, PI-OI porphyric, rare OI grains (2-3 mm), 1%; PI (5-7 mm), 10%; vesicles 2-3%, 5 mm

G96 24-07 basalt sample cm 20x10x5, PI-(OI) porphyric, PI (0.5-2 mm), 5%, rare OI (0.5-1 mm), <1%, vesicles 0.2-2 mm, 5%

G96 24-08 basalt sample cm 20x15x8, PI-OI-Cpx porphyric, PI (1-4 mm), 5%; OI (0.5 mm), <1%; one aggregate with glomeroporphyric structure is present, 1.5x1 cm, Cpx 40%, up to 2 mm; PI 45%, OI 15%, maybe gabbro xenolite

G96 24-09 basalt sample cm 25x20x15, PI-(OI) porphyric, PI (1-3 mm), 3-4%; rare OI grains 2-5 mm

G96 24-10 basalt sample cm 20x15x8, like G9624-09 with rare Cpx phenocrysts

G96 24-11 basalt sample cm 15x20x7, like G9624-10

G96 24-12 basalt sample cm 12x10x6, like G9624-10, with Cpx grains intergrowth with PI

G96 24-13 basalt sample cm 15x10x8, PI porphyric (10 mm), 7%; rare OI grains, included in PI

G96 24-14 basalt sample cm 12x10x7, like G9624-06, more altered OI-PI porphyric

G96 24-15 basalt sample cm 10x8x6 OI-PI porphyric, OI (0.5-3 mm), 2%; PI 0.5 mm <1%

G96 24-16 glasses glass description will be performed more completely on separated database

G96 25-01 aphyric basalt sample cm 25x10x10, rare PI-OI phenocrysts, lightly vesicular 1-2% (0.5-1 mm); OI microphenocrysts (0.2-0.5 mm), 1-2%; Fe-Mn patina

G96 25-02 basalt sample cm 6x4x5, OI-PI porphyric, glassy cooling margin thickness 5 mm

G96 25-03 basalt OI-PI porphyric, glassy cooling margin thickness 5 mm

G96 25-04 aphyric basalt sample cm 6x6x6, rare OI porphyric, OI (0.1-2 mm) 1-2%, ; glassy cooling margin

G96 25-05 glasses 3 samples of glassy crust, size 3-4 cm, glass description will be performed more completely on separated database

G96 26-01 glassy basalt sample cm 50x30x20, very fresh and particular shaped lava burr, glassy porphyric basalt, PI-OI-Cpx porphyric, OI-PI glomeroporphyric, glass inclusions in OI, PI (3-30 mm) 30%, anhedral; OI (2-5 mm) 2-3 %, euhedral; Cpx light green color (7 mm) euhedral