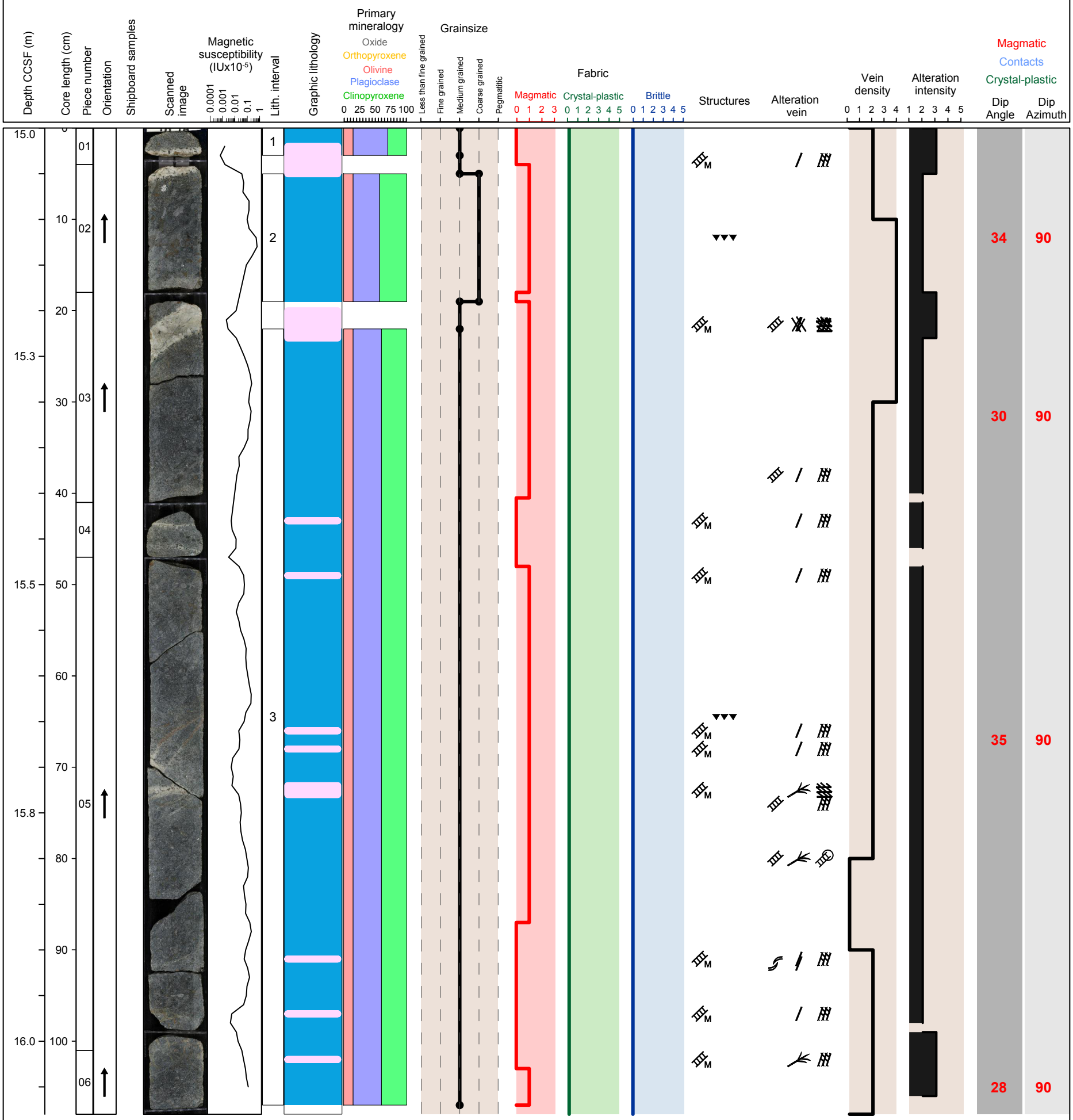
Hole 360-1105A-1R Section 1, Top of Section: 15.0 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained granular olivine gabbro (intervals 1 & 3), with subordinate coarse grained subophitic olivine gabbro (interval 2) and numerous felsic veins

Metamorphic Petrology: The section is moderately altered. Alteration is usuallly associated with olivine replacement by brownish clay and plagioclase replacement by secondary plagioclase in portions containing leucocratic veins.

Structural Geology: There is a magmatic vein network that is crosscut by alteration veins. The igneous contact is defined by a gradational change in grain size. The magmatic fabric is inclined and defined by pyroxene.

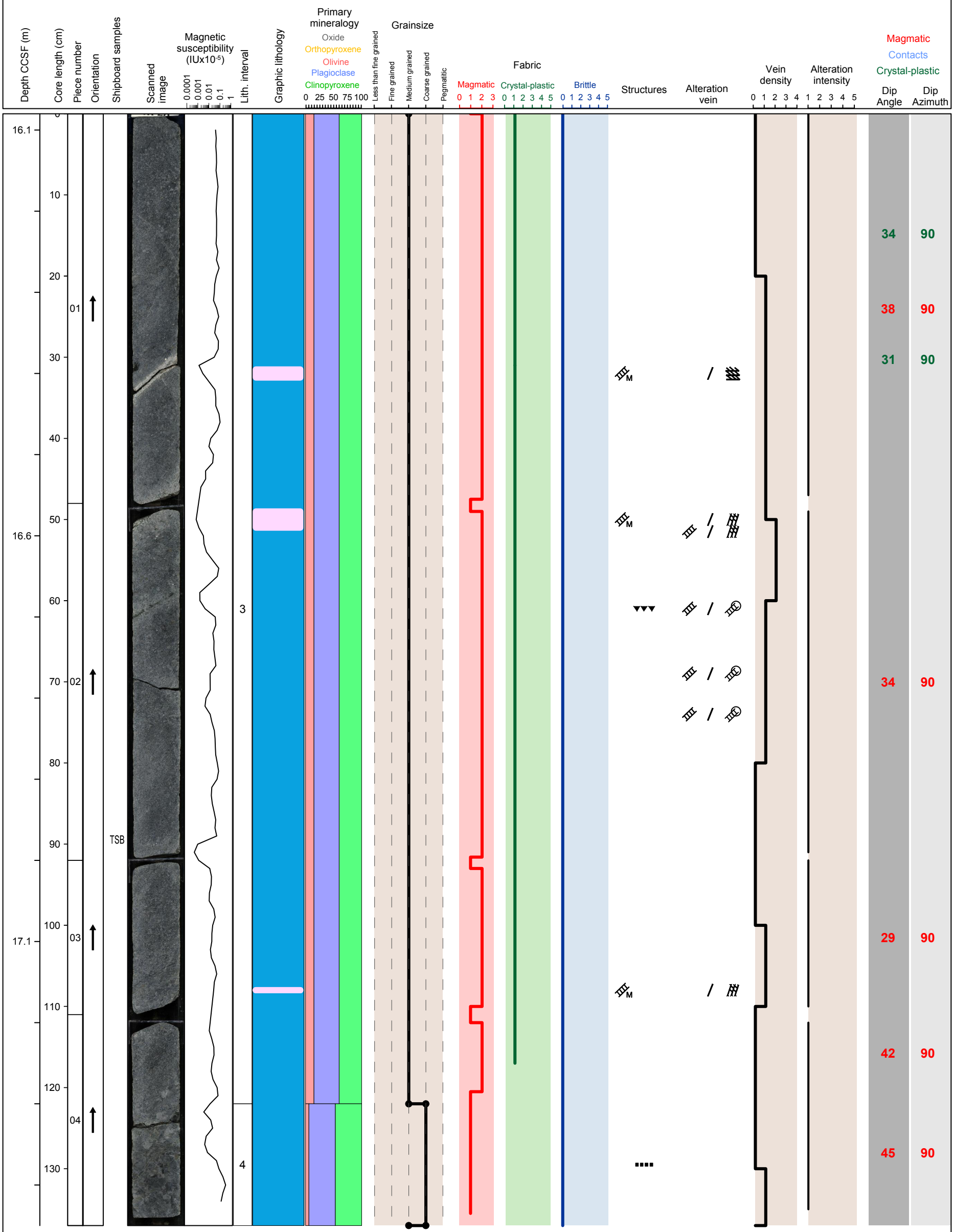


Hole 360-1105A-1R Section 2, Top of Section: 16.08 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained granular olivine gabbro (interval 3) with subordinate coarse grained subophitic olivine gabbro (interval 4) and one felsic vein

Metamorphic Petrology: The section is mostly fresh (<10% alteration).

Structural Geology: The igneous contact is modal. The magmatic fabric is inclined and defined by pyroxene. The crystal plastic fabric is weak grading into the magmatic fabric and moderately dipping.

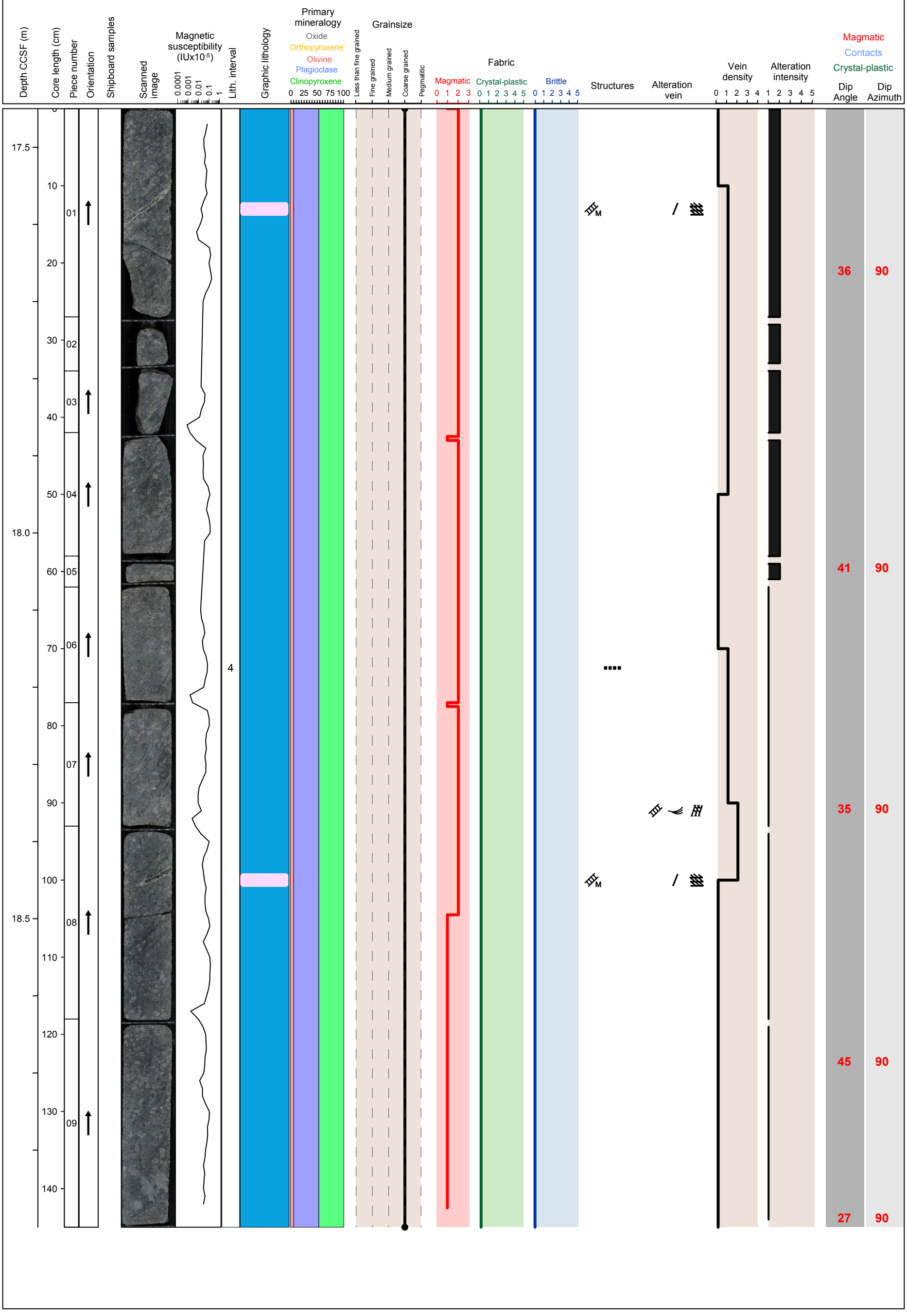


Hole 360-1105A-1R Section 3, Top of Section: 17.45 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 4) with domains containing very large clinopyroxene grains (up to 4cm) and two felsic veins

Metamorphic Petrology: Top of the section is moderately altered where olivine is replaced by brownish clay. Bottom of the section is fresh.

Structural Geology: There is a model grain size variation across the igneous contacts. The magmatic fabrics are inclined and defined by pyroxene.

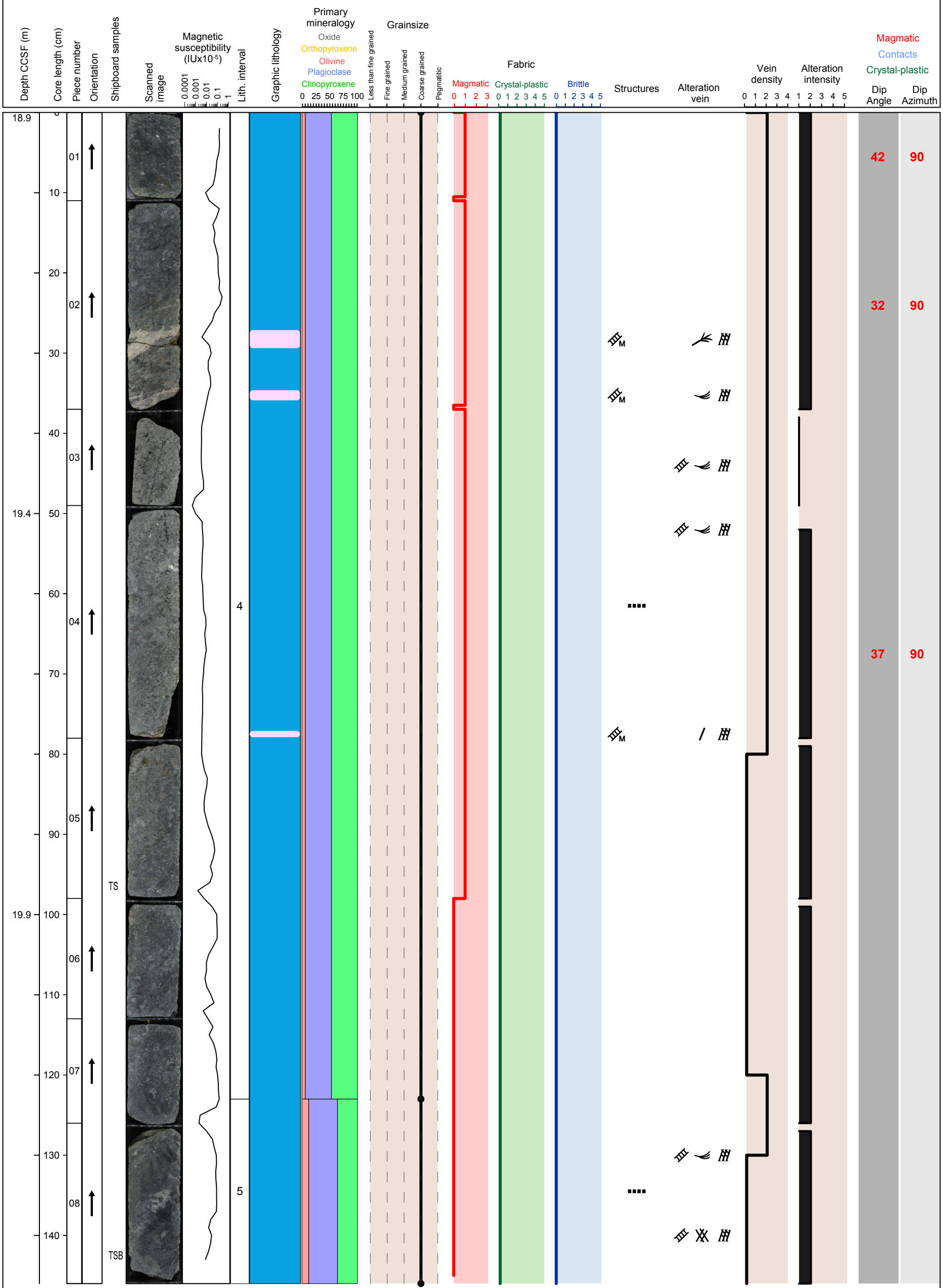


Hole 360-1105A-1R Section 4, Top of Section: 18.9 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 4) with subordinate coarser grained subophitic olivine gabbro (interval 5) and three felsic veins

Metamorphic Petrology: Most of the section is moderately altered. Alteration is mostly associated with olivine replaced by greenish clay.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene and plagioclase and locally by olivine. There is a moderately plunging slickenlines at 75 cm.

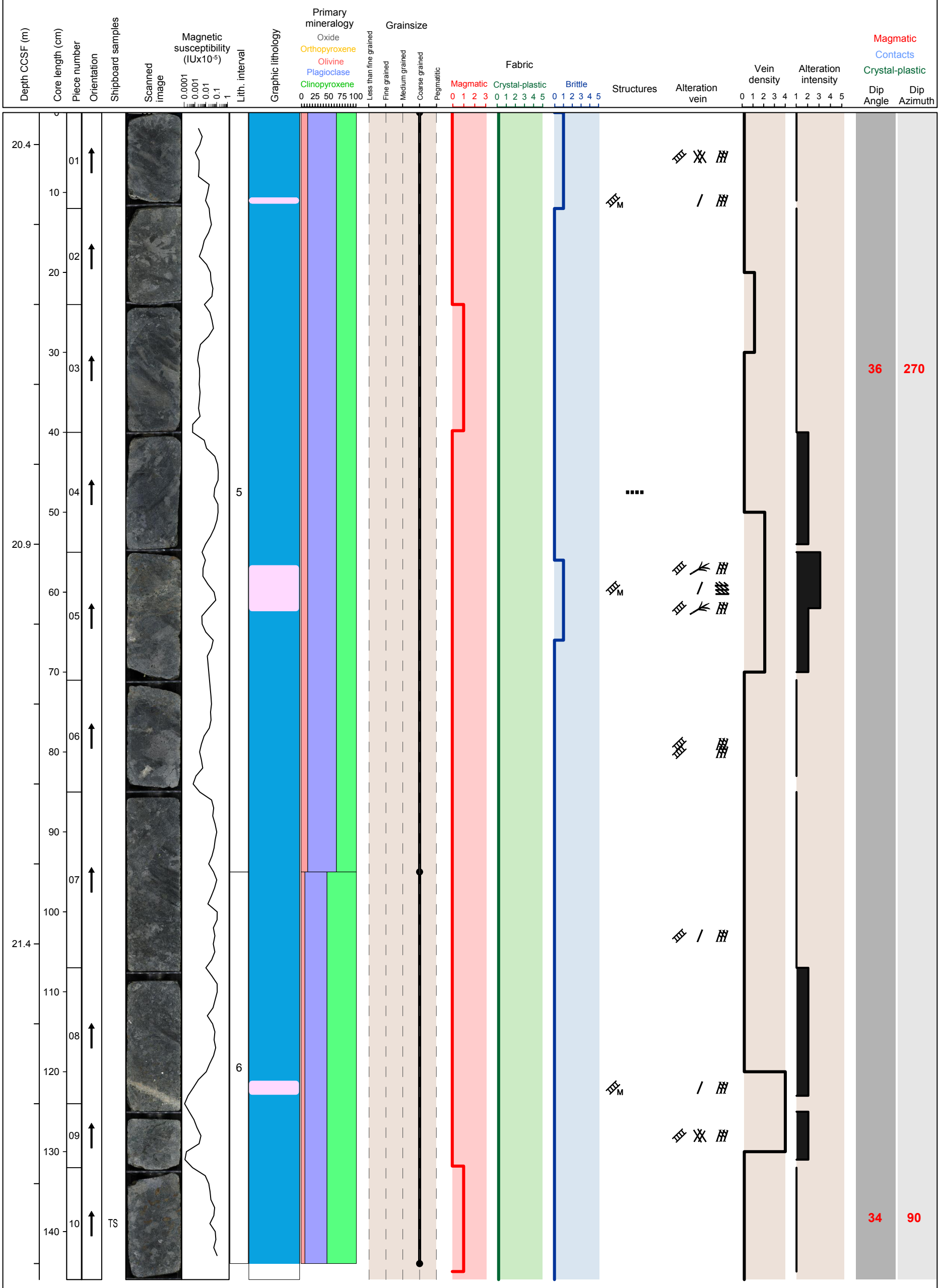


Hole 360-1105A-1R Section 5, Top of Section: 20.36 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 5), coarse grained subophitic olivine gabbro containing lesser amounts and slightly smaller grains of olivine and plagioclase (interval 6), and three felsic veins

Metamorphic Petrology: Most of the section is moderately altered. A portion is markedly altered and is associated with veins.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene and locally by olivine. There is a magmatic breccia from 57-66 cm.

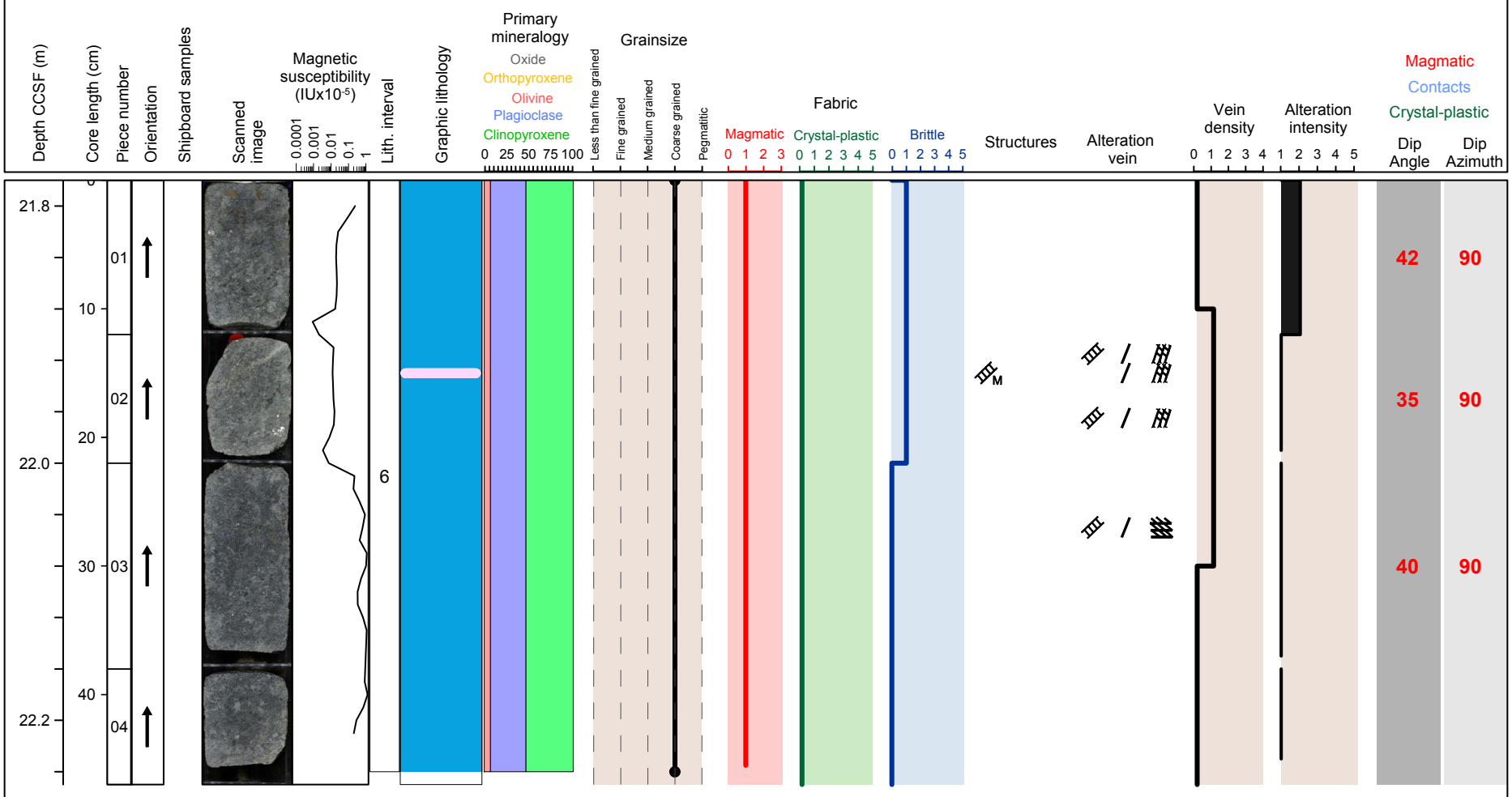


Hole 360-1105A-1R Section 6, Top of Section: 21.82 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 6) with one felsic vein

Metamorphic Petrology: The section is mostly fresh (<10% alteration).

Structural Geology: The igneous contact is gradational. The magmatic fabric is inclined and defined by pyroxene. There is a moderately plunging slickenline at 14 cm.

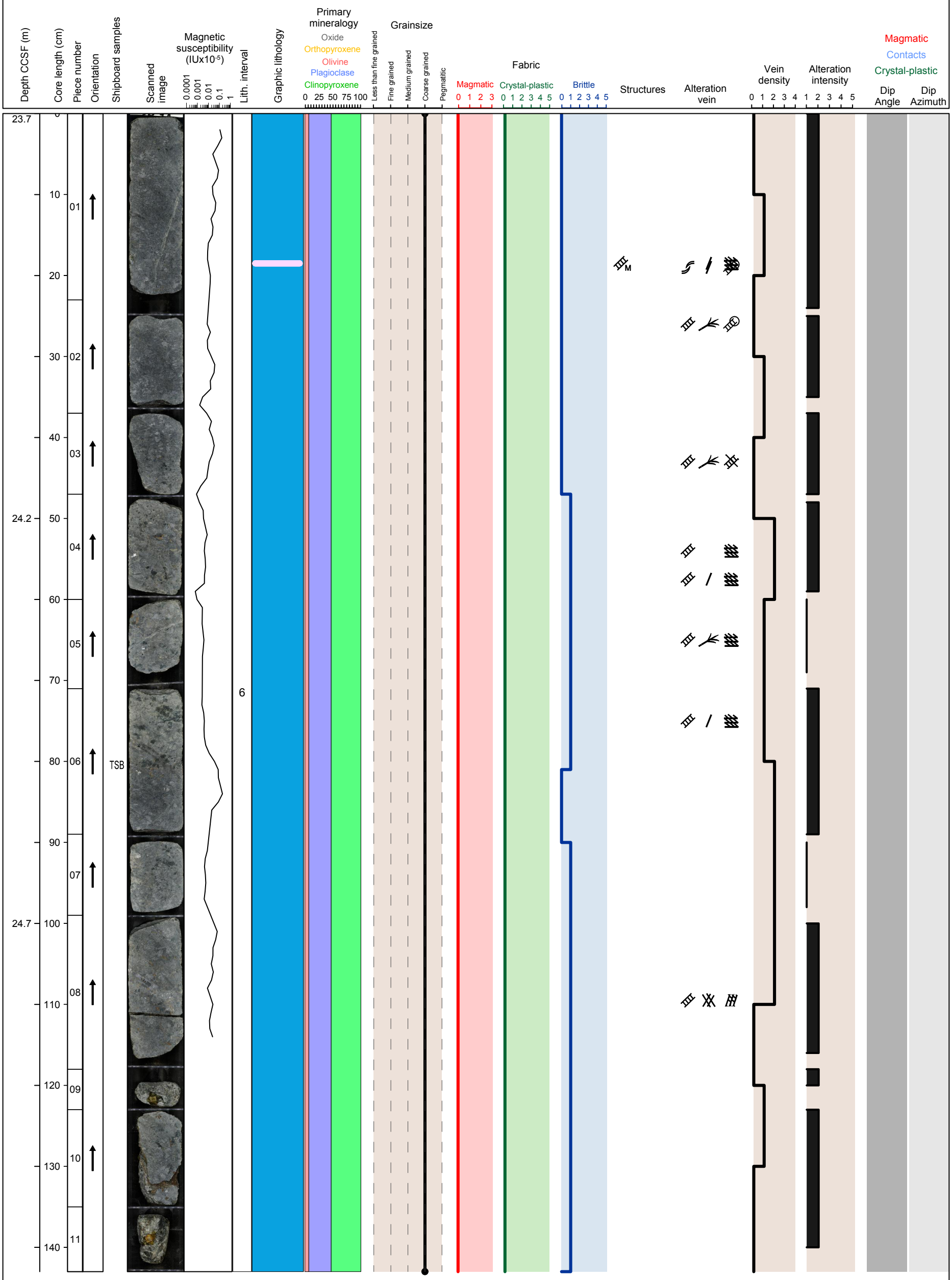


Hole 360-1105A-2R Section 1, Top of Section: 23.7 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 6) with one felsic vein

Metamorphic Petrology: The section is mostly only slightly to moderately altered. Alteration is associated with olivine replaced by brownish clay.

Structural Geology: The vein is steeply dipping.

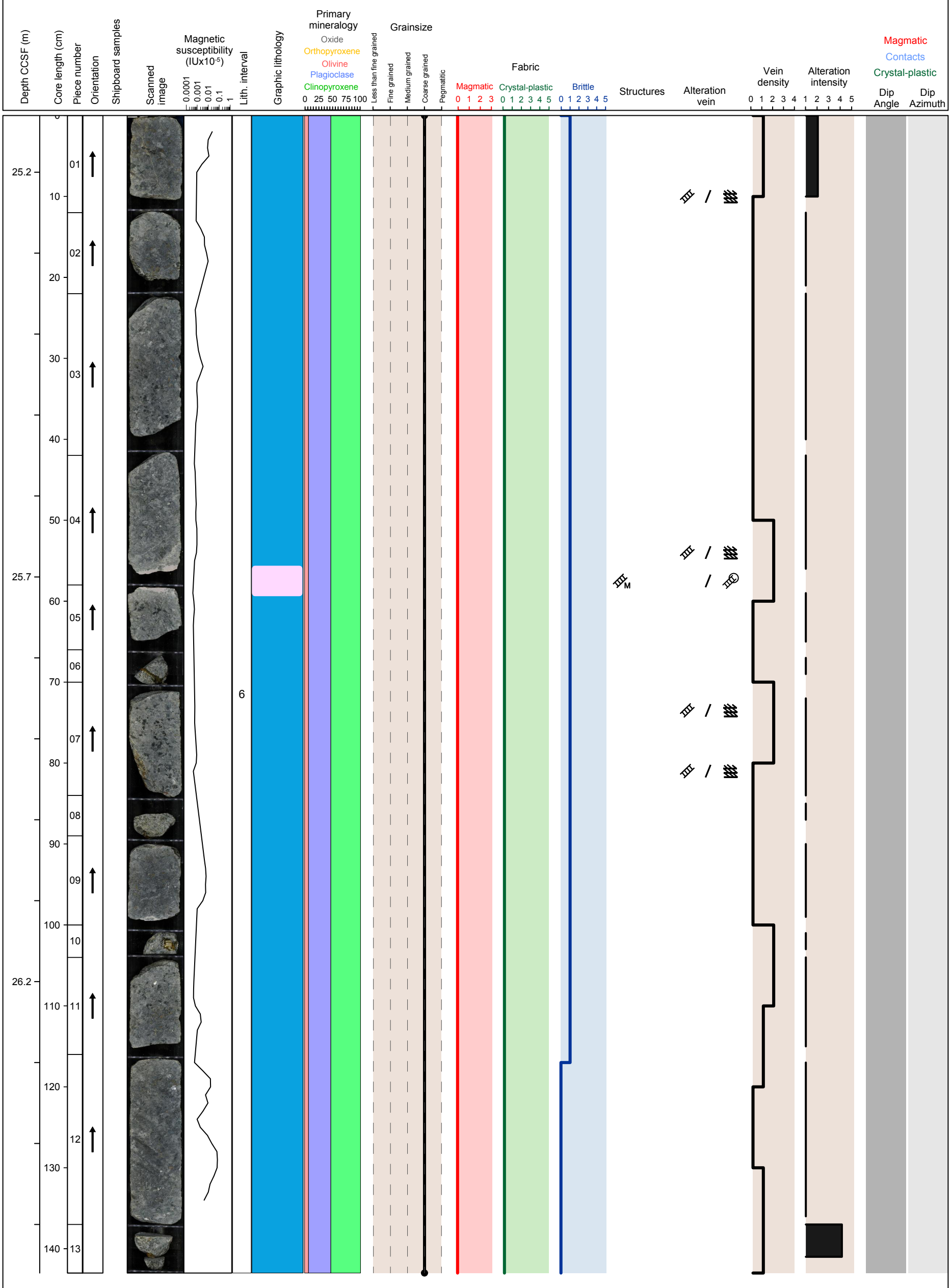


Hole 360-1105A-2R Section 2, Top of Section: 25.13 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 6)

Metamorphic Petrology: The section is mostly fresh (<10% alteration).

Structural Geology: The vein is steeply dipping. There is a magmatic breccia at 55 cm.

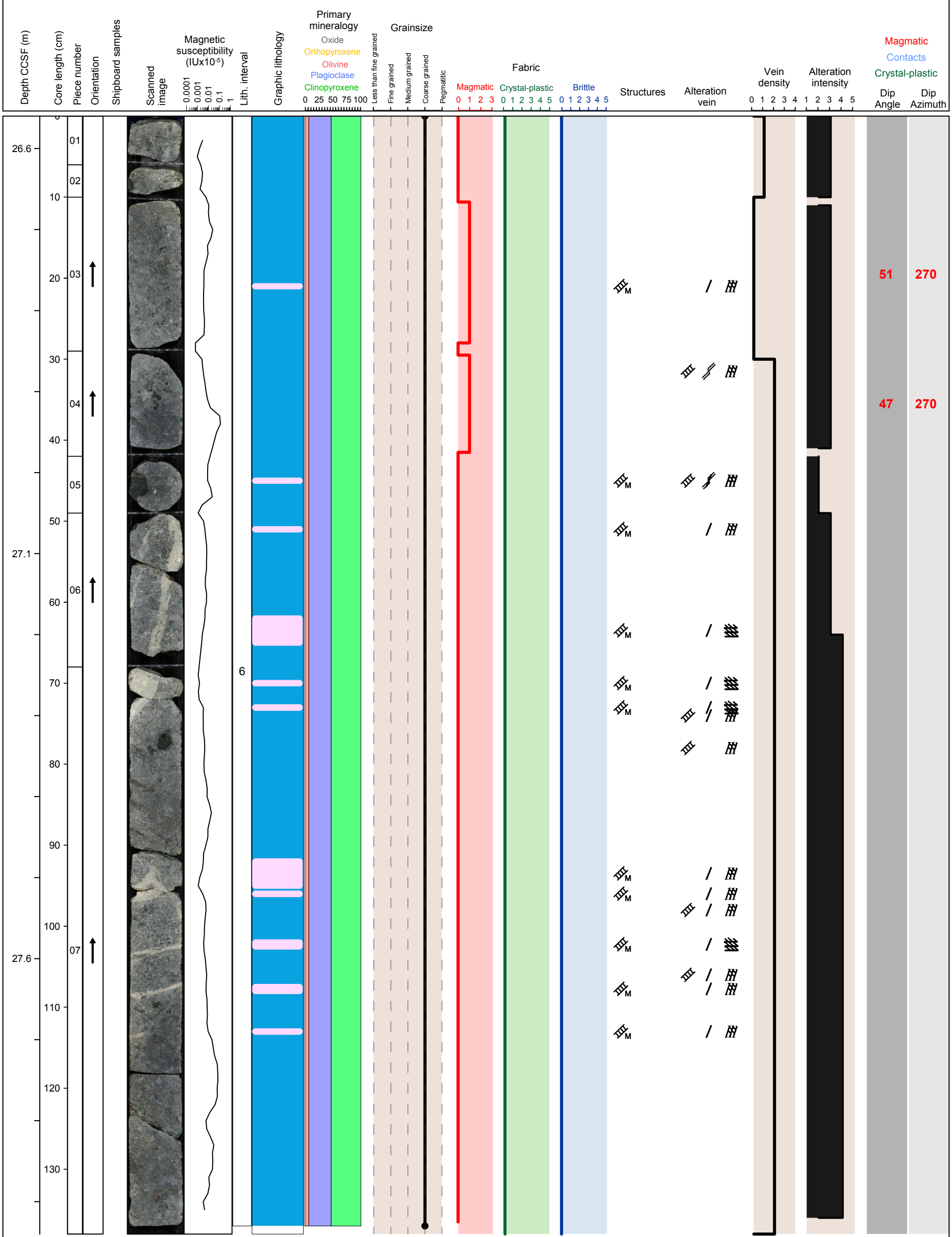


Hole 360-1105A-2R Section 3, Top of Section: 26.56 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 6) and numerous felsic veins

Metamorphic Petrology: The section is moderately to highly altered, with the portion containing the felsic vein being the most altered. Alteration minerals observed are brownish clay, amphibole, secondary plagioclase and chlorite.

Structural Geology:

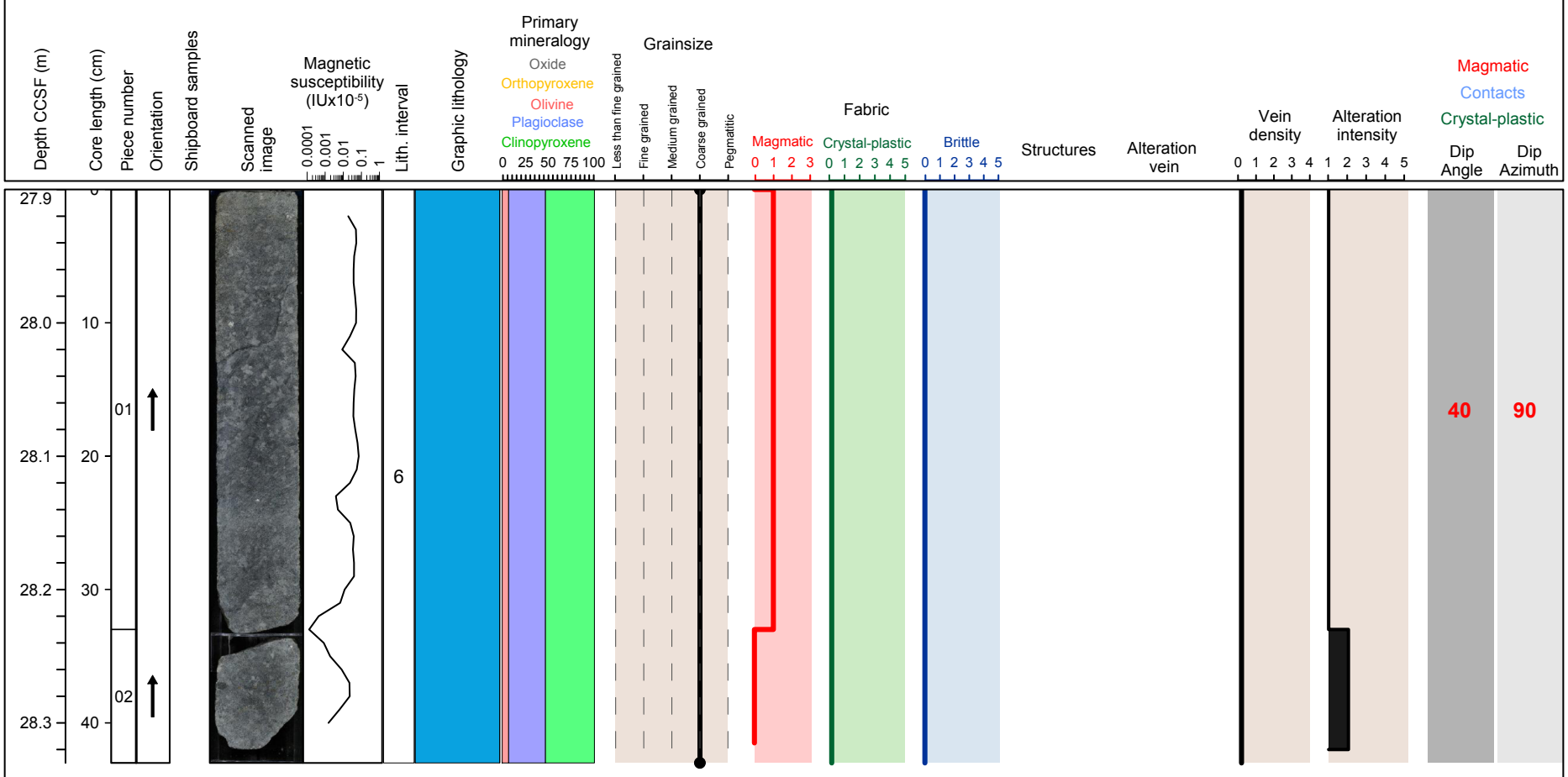


Hole 360-1105A-2R Section 4, Top of Section: 27.94 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 6)

Metamorphic Petrology: The section is slightly to moderately altered. Alteration is associated with pyroxene replaced by amphibole, chlorite and brownish clay.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene.

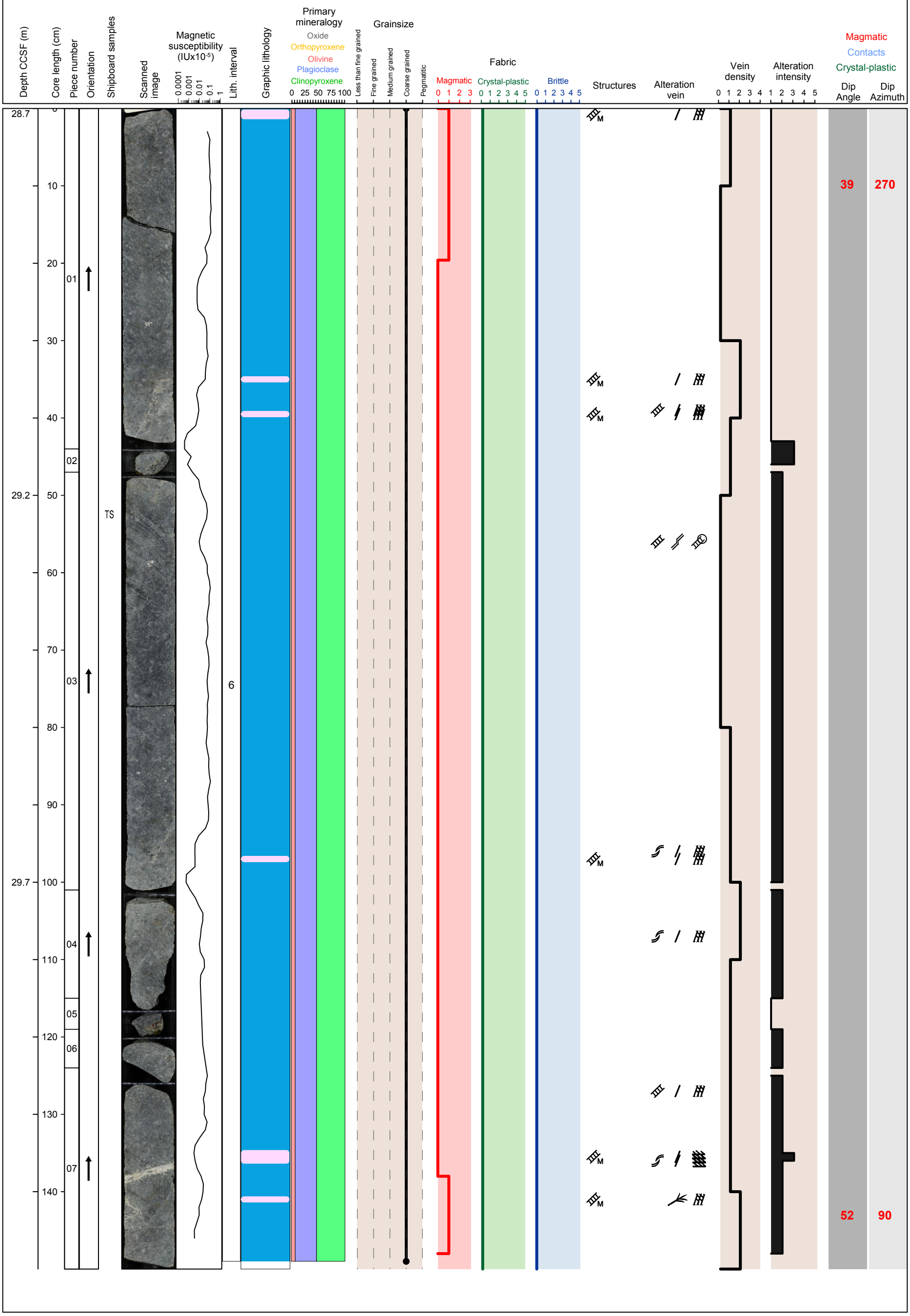


Hole 360-1105A-3R Section 1, Top of Section: 28.7 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 6) with three felsic veins

Metamorphic Petrology: The section is moderately to highly altered, with the portion containing the felsic vein being the most altered.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. The felsic vein is steeply dipping and is altered.

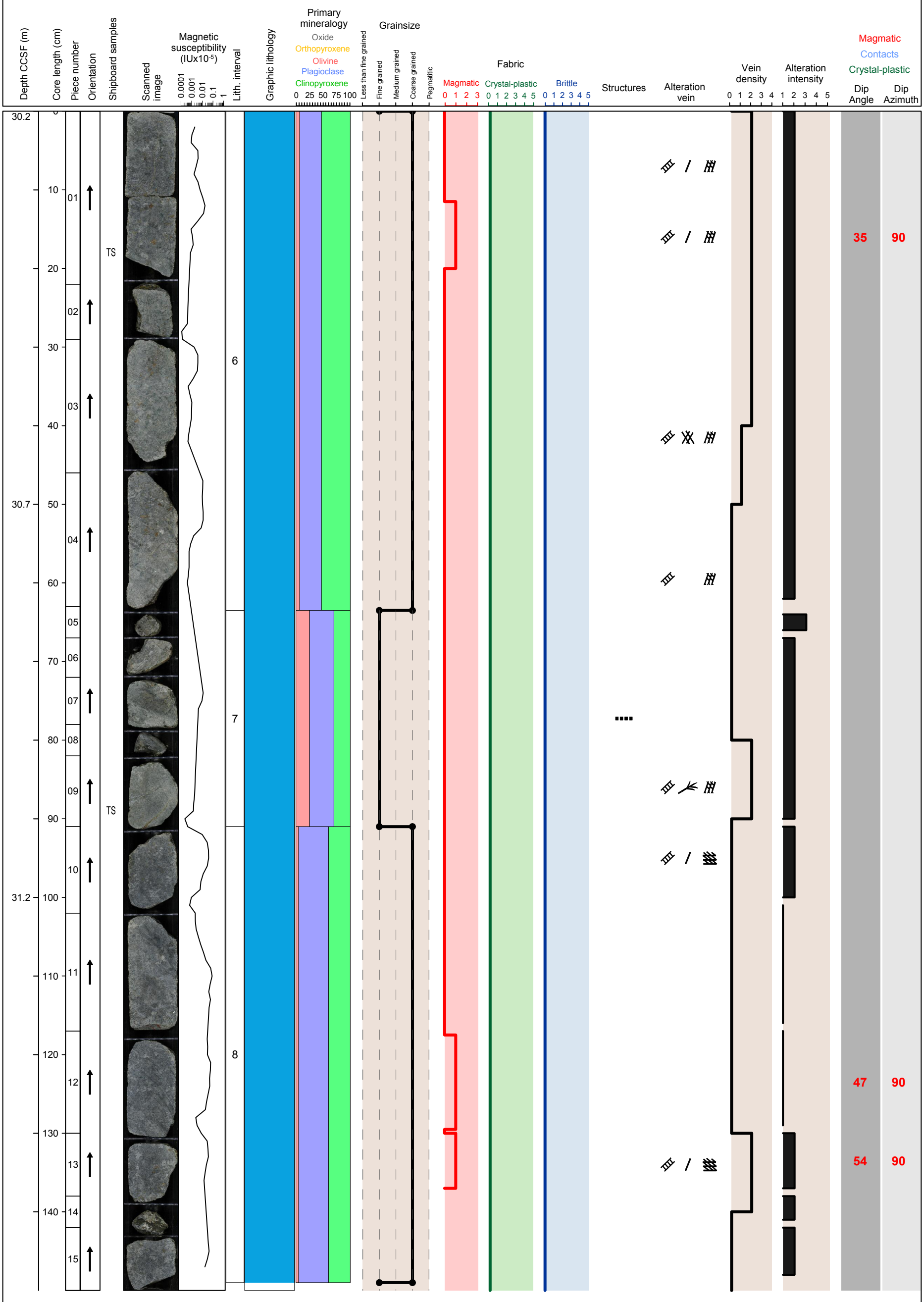


Hole 360-1105A-3R Section 2, Top of Section: 30.2 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 6, 8) with domains of coarser grained oxide olivine gabbro, and fine grained granular olivine gabbro (interval 7)

Metamorphic Petrology: The section is moderately to highly altered. Most of the alteration is associated with olivine and pyroxene.

Structural Geology: Fine grained gabbro intruded into coarser grained gabbro. The magmatic fabrics are inclined and defined by pyroxene.

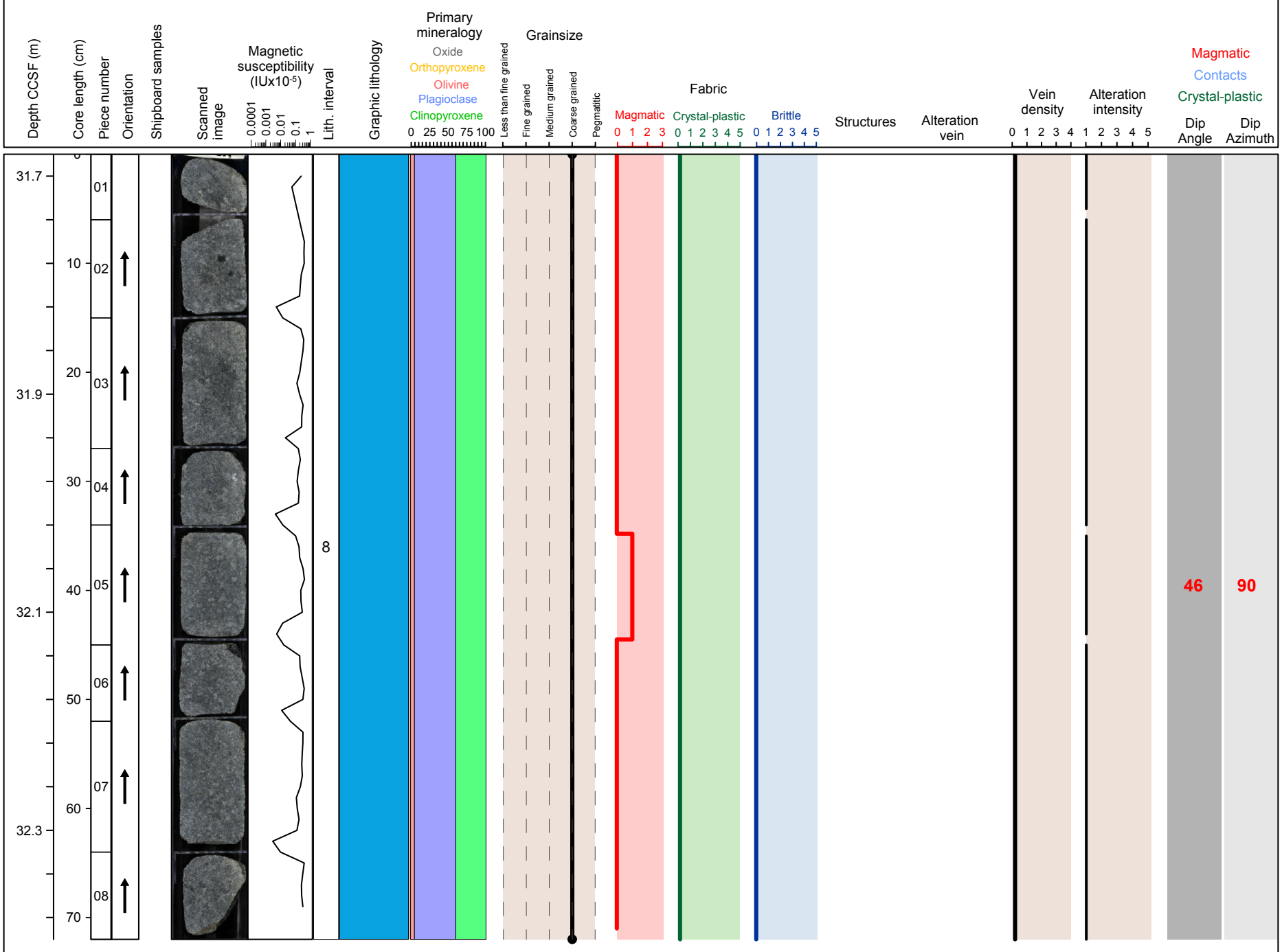


Hole 360-1105A-3R Section 3, Top of Section: 31.7 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 8)

Metamorphic Petrology: The section is moderately altered. Alteration is usually associated with pyroxene replacement by amphibole and plagioclase by secondary plagioclase.

Structural Geology:

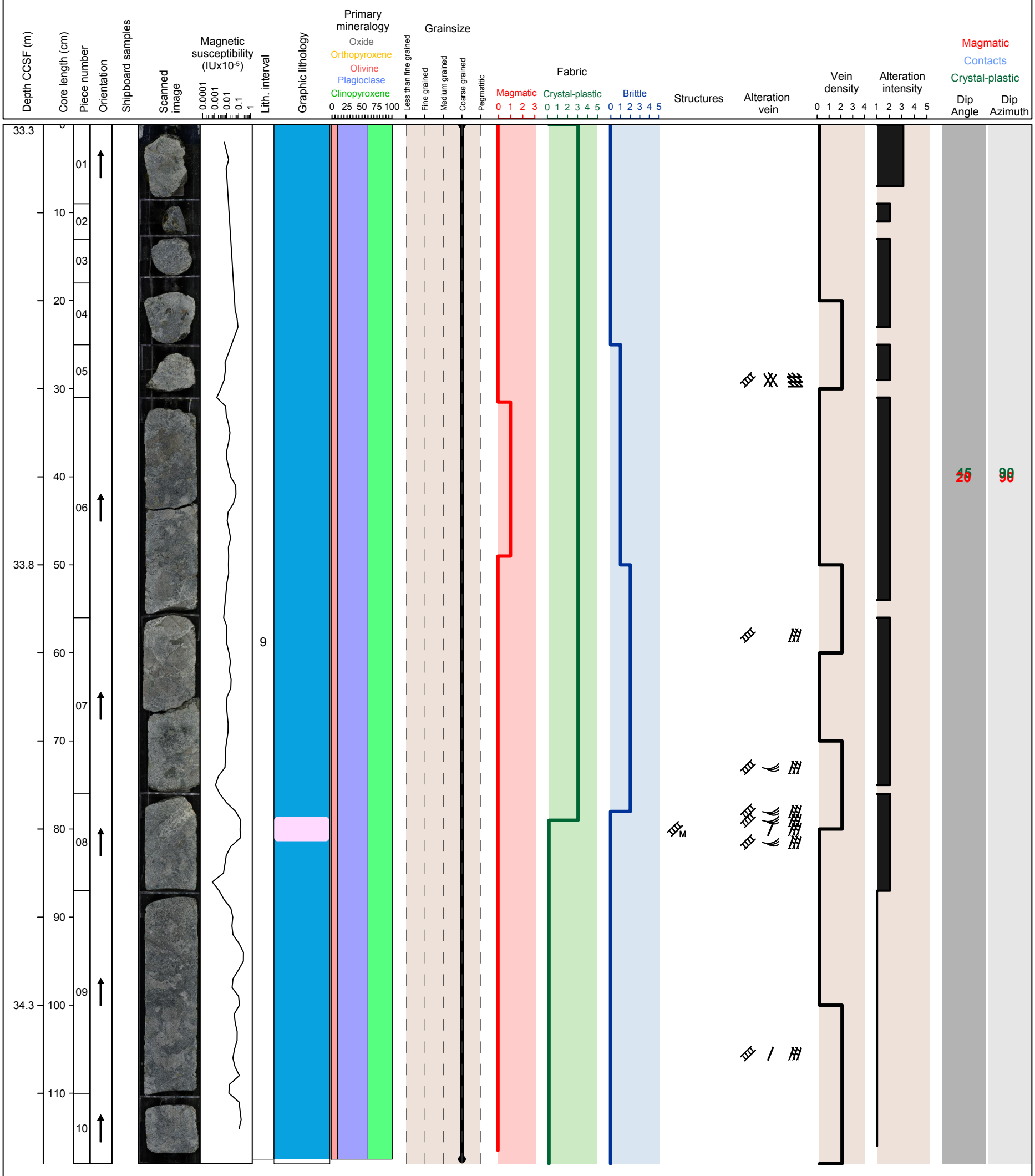


Hole 360-1105A-4R Section 1, Top of Section: 33.3 m (CCSF-179-1105-A-20151216)

Igneous Petrology: fine to coarse grained subophitic olivine gabbro with domains of coarse grained granular oxide bearing gabbro (interval 9)

Metamorphic Petrology: The section is moderately altered with greenish clay, amphibole, secondary plagioclase and chlorite being the most observed alteration minerals.

Structural Geology: The felsic vein is sheared. The magmatic fabric is inclined and defined by pyroxene.

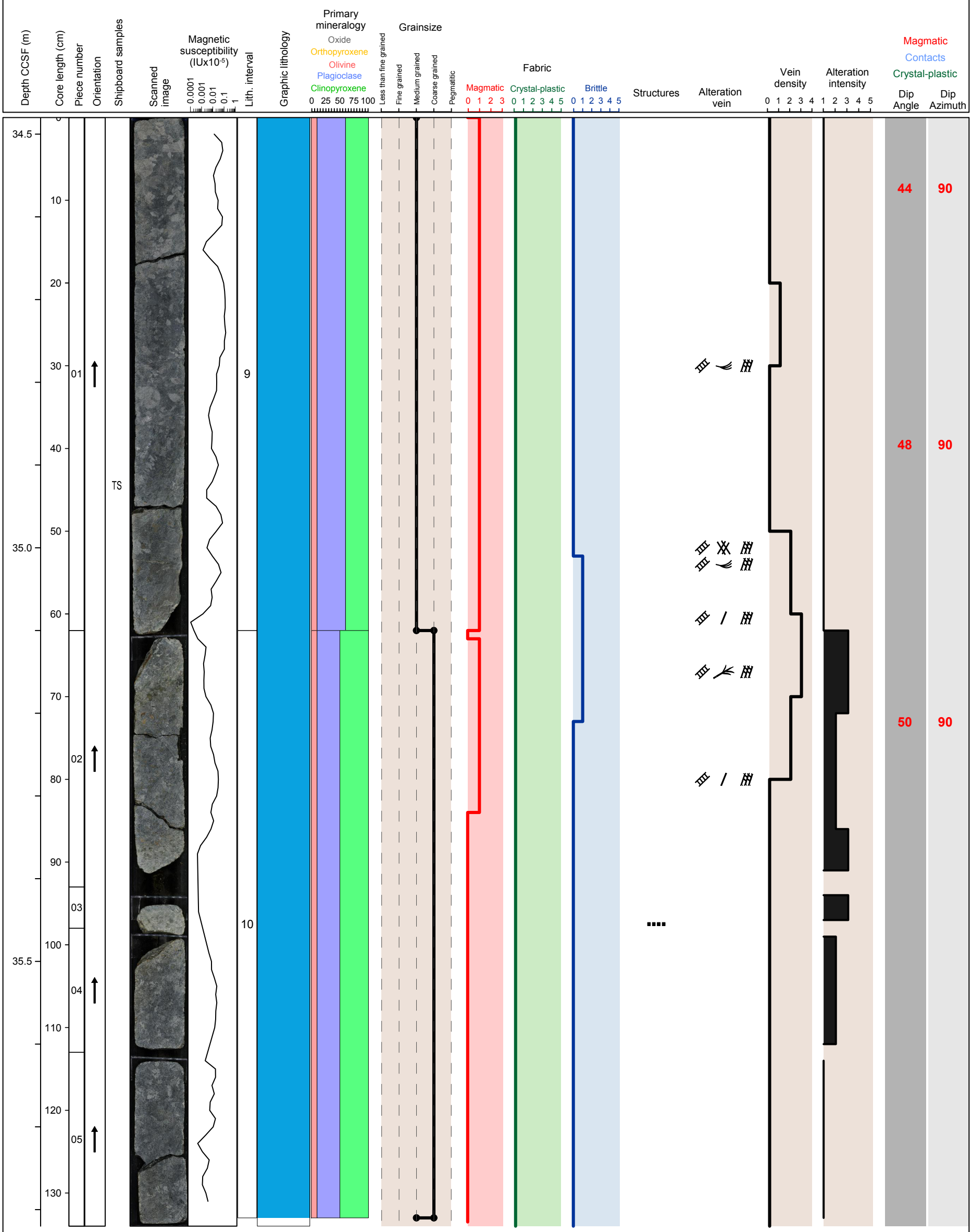


Hole 360-1105A-4R Section 2, Top of Section: 34.48 m (CCSF-179-1105-A-20151216)

Igneous Petrology: fine to coarse grained subophitic olivine gabbro with domains of coarse grained granular oxide bearing gabbro (interval 9), and coarse grained poikilitic olivine gabbro (interval 10; grain size is slightly lower than for interval 9)

Metamorphic Petrology: The section is moderately to highly altered with brownish clay, amphibole, secondary plagioclase and chlorite being the most observed alteration minerals.

Structural Geology: The igneous contact is defined by a change in grain size. The magmatic fabric is inclined and defined by pyroxene and locally olivine. The crystal plastic fabric is moderately dipping and cut by a moderately fractured zone at 78 cm.

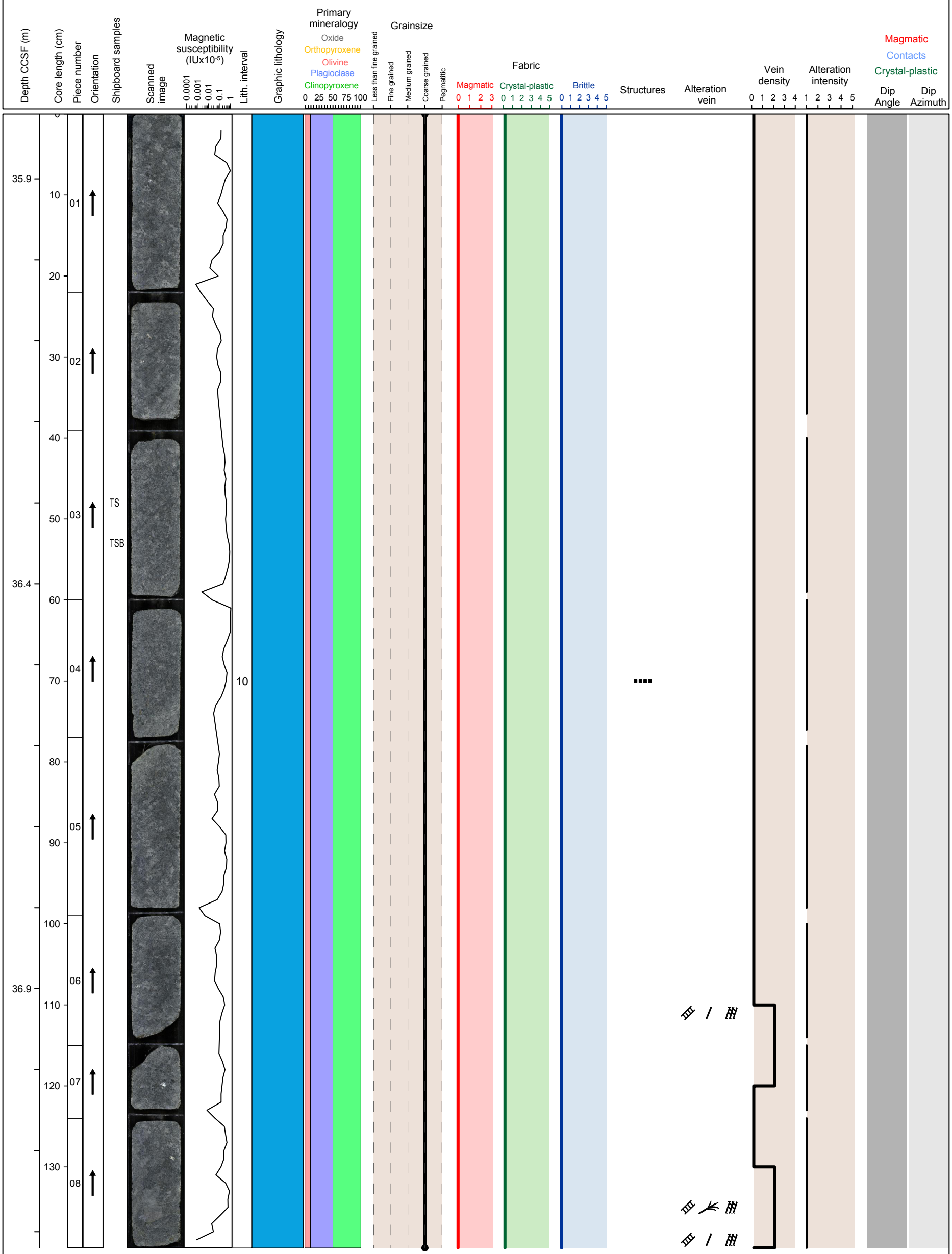


Hole 360-1105A-4R Section 3, Top of Section: 35.82 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained poikilitic olivine gabbro (interval 10)

Metamorphic Petrology: The section is mostly fresh (<10% alteration).

Structural Geology:

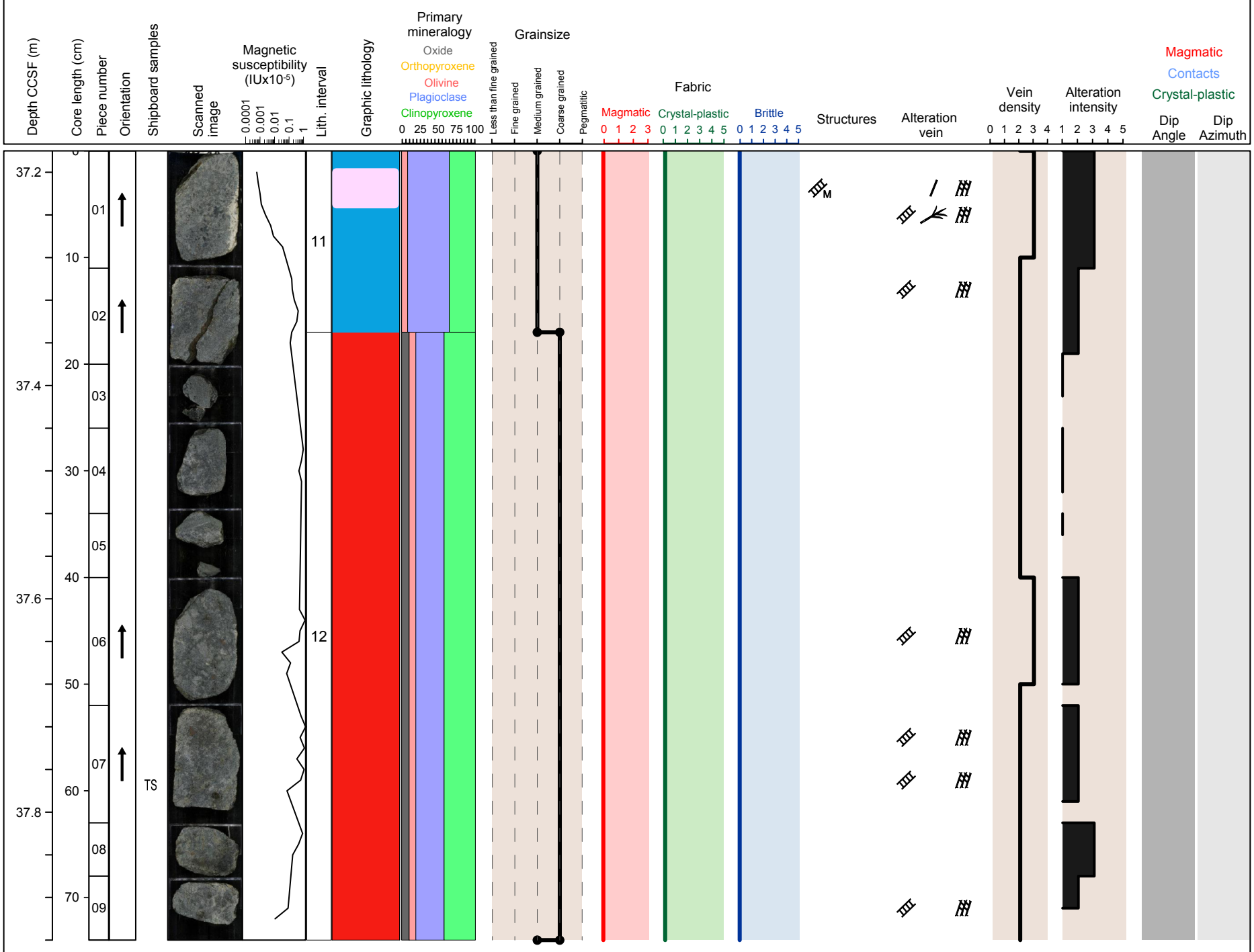


Hole 360-1105A-4R Section 4, Top of Section: 37.22 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained subophitic olivine gabbro (interval 11), and coarse grained subophitic olivine oxide gabbro (interval 12) with one felsic vein

Metamorphic Petrology: The top and bottom part of the section is highly altered with brownish clay being conspicous. An altered zone with a felsic vein was also observed at the upper part of the section. The middle part of the section is only slightly to moderately altered.

Structural Geology: There is a moderately plunging slickline at 79 cm.

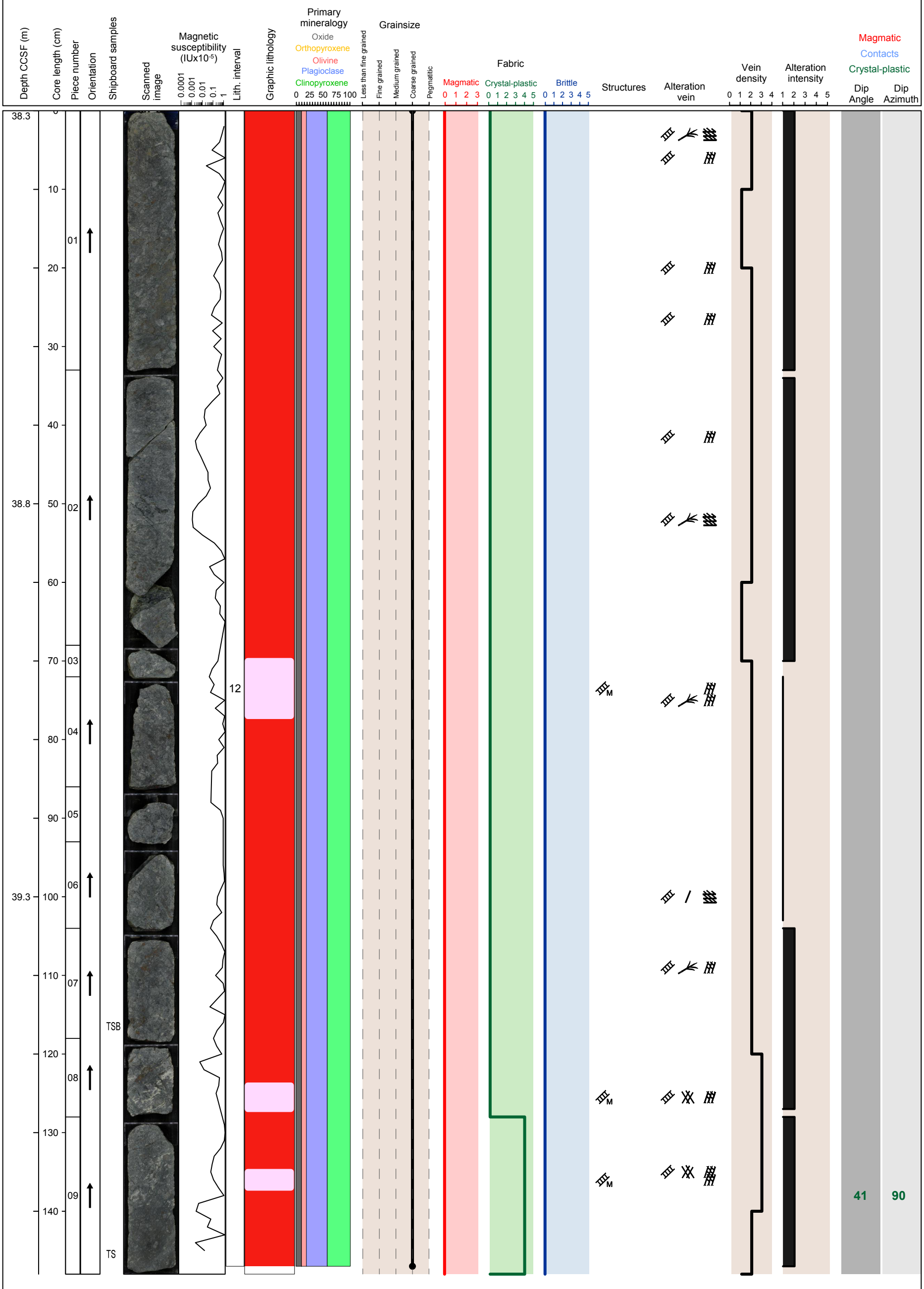


Hole 360-1105A-5R Section 1, Top of Section: 38.3 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine oxide gabbro (interval 12) with domains of pegmatitic olivines (up to 6cm)

Metamorphic Petrology: The section is moderately altered with brownish clay observed throughout the section.

Structural Geology:

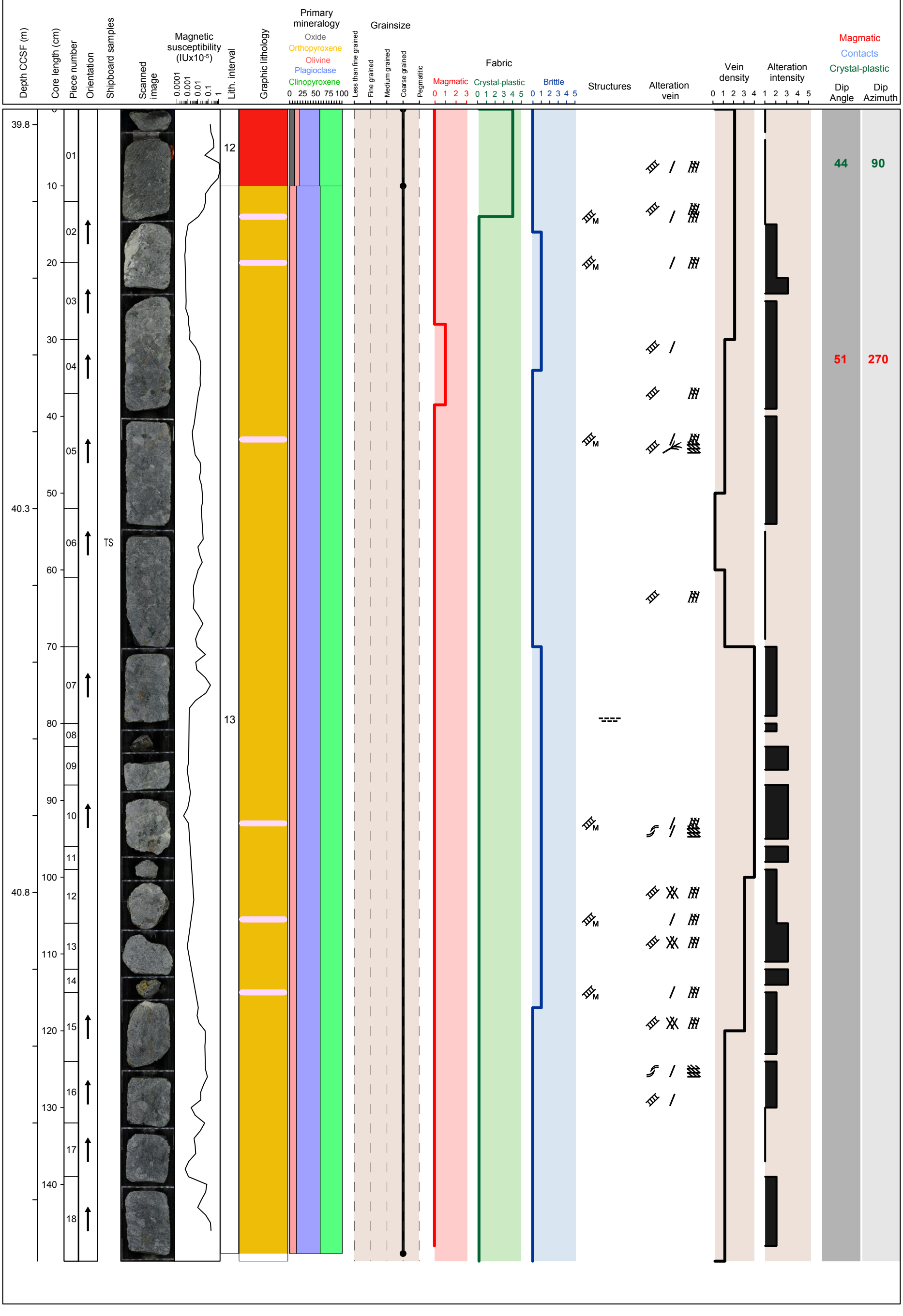


Hole 360-1105A-5R Section 2, Top of Section: 39.78 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine oxide gabbro (interval 12), and coarse grained subophitic disseminated oxide olivine gabbro (interval 13) with one felsic vein

Metamorphic Petrology: The section is moderately to highly altered with zones marked by cataclastic rocks and leucocratic veins being the most altered.

Structural Geology: The magmatic fabric is inclined and defined by pyroxene. The crystal plastic fabric is moderately dipping and defined by pyroxene porphyroclasts.

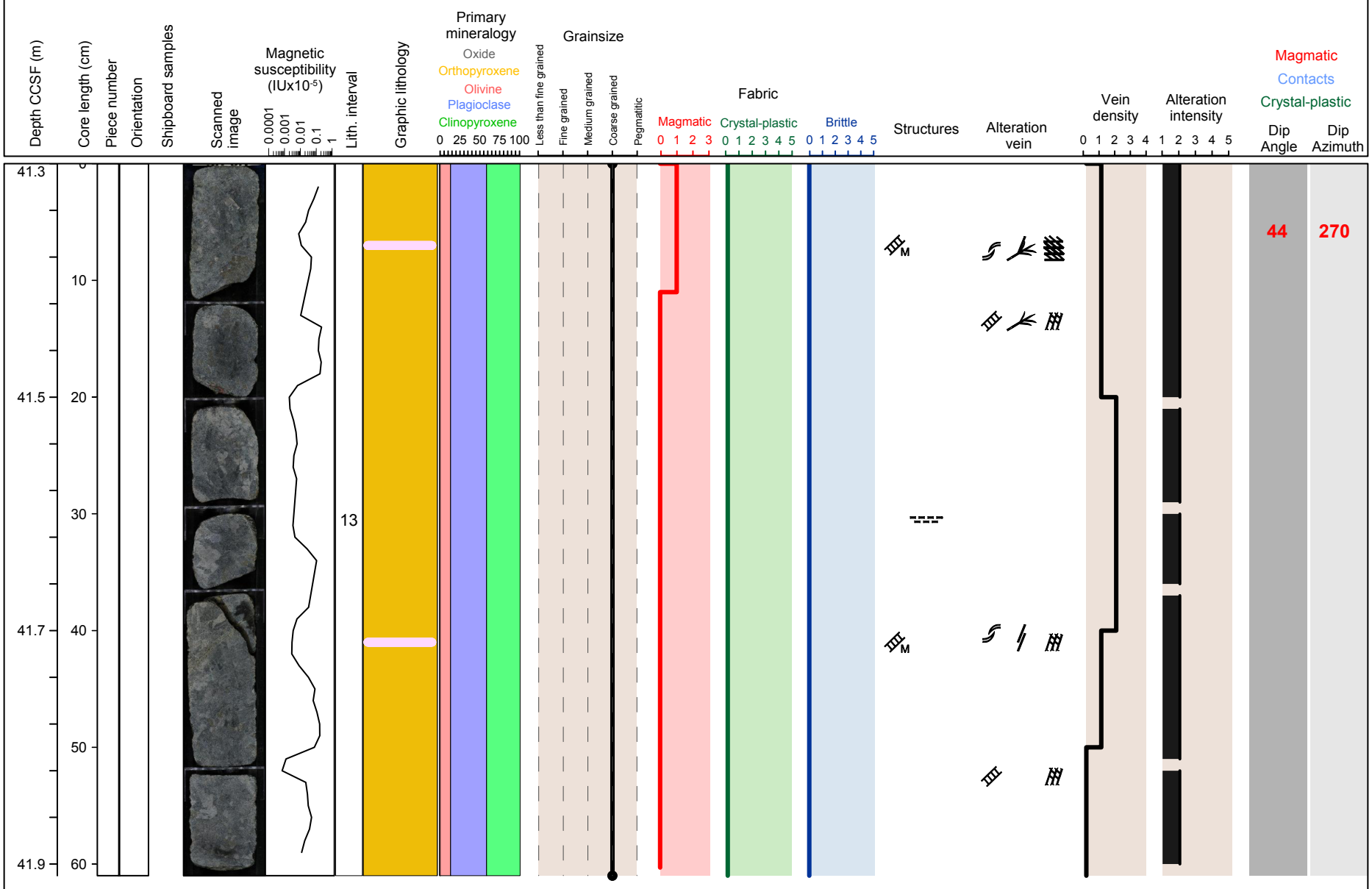


Hole 360-1105A-5R Section 3, Top of Section: 41.28 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic disseminated oxide olivine gabbro (interval 13)

Metamorphic Petrology: The section is moderately altered. Alteration minerals observed are amphibole, brownish clay, secondary plagioclase and chlorite.

Structural Geology: The magmatic fabric is inclined and defined by pyroxene. The crystal plastic fabric is moderately dipping and defined by pyroxene porphyroclasts.

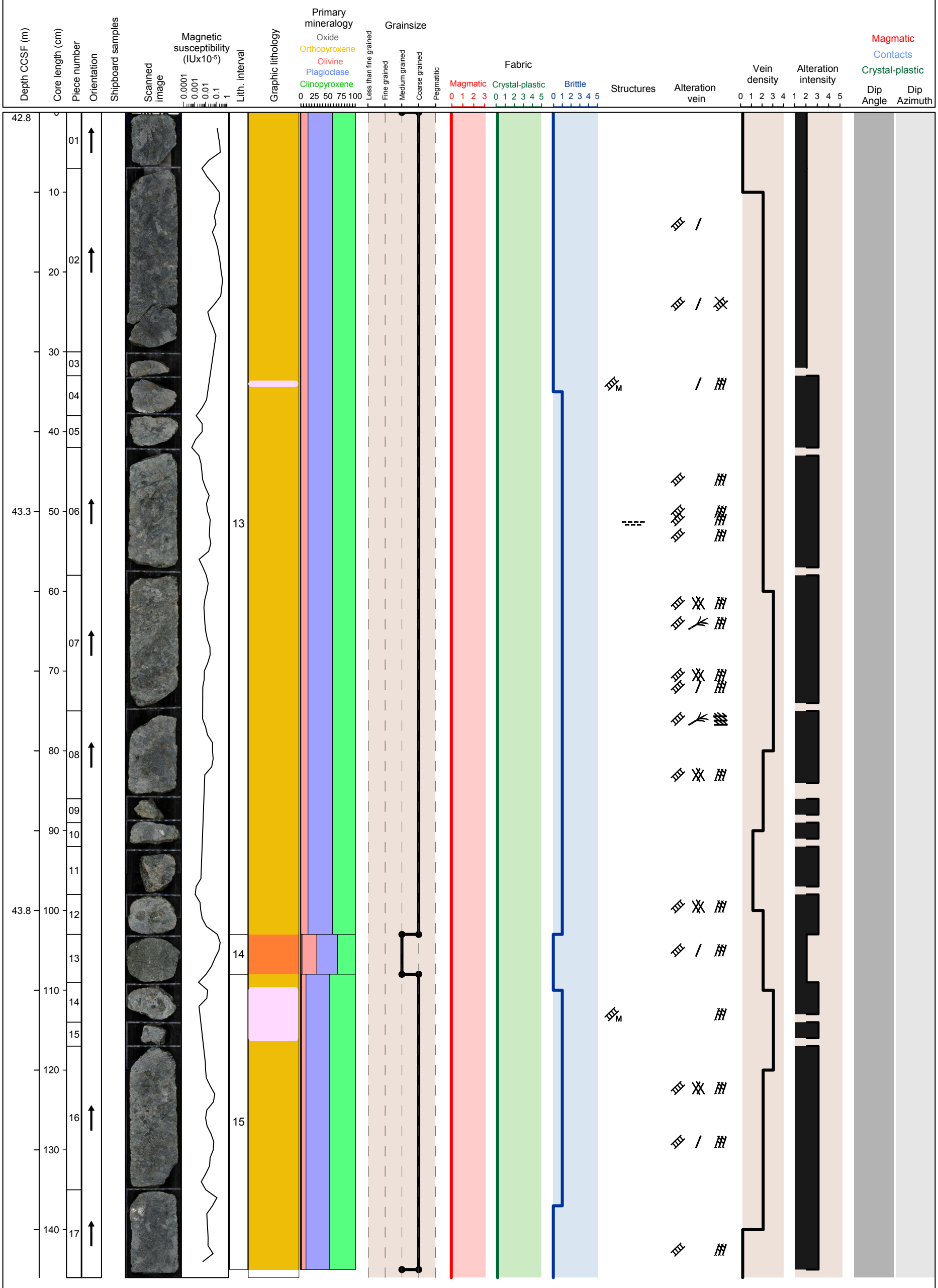


Hole 360-1105A-6R Section 1, Top of Section: 42.8 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic disseminated oxide olivine gabbro (interval 13), and medium grained intergranular oxide bearing olivine gabbro (interval 14), and coarse grained subophitic disseminated-oxide orthopyroxene bearing olivine gabbro (interval 15)

Metamorphic Petrology: The section is moderately to highly altered. Alteration is usually associated with pyroxene being replaced by amphibole and brownish clay.

Structural Geology:

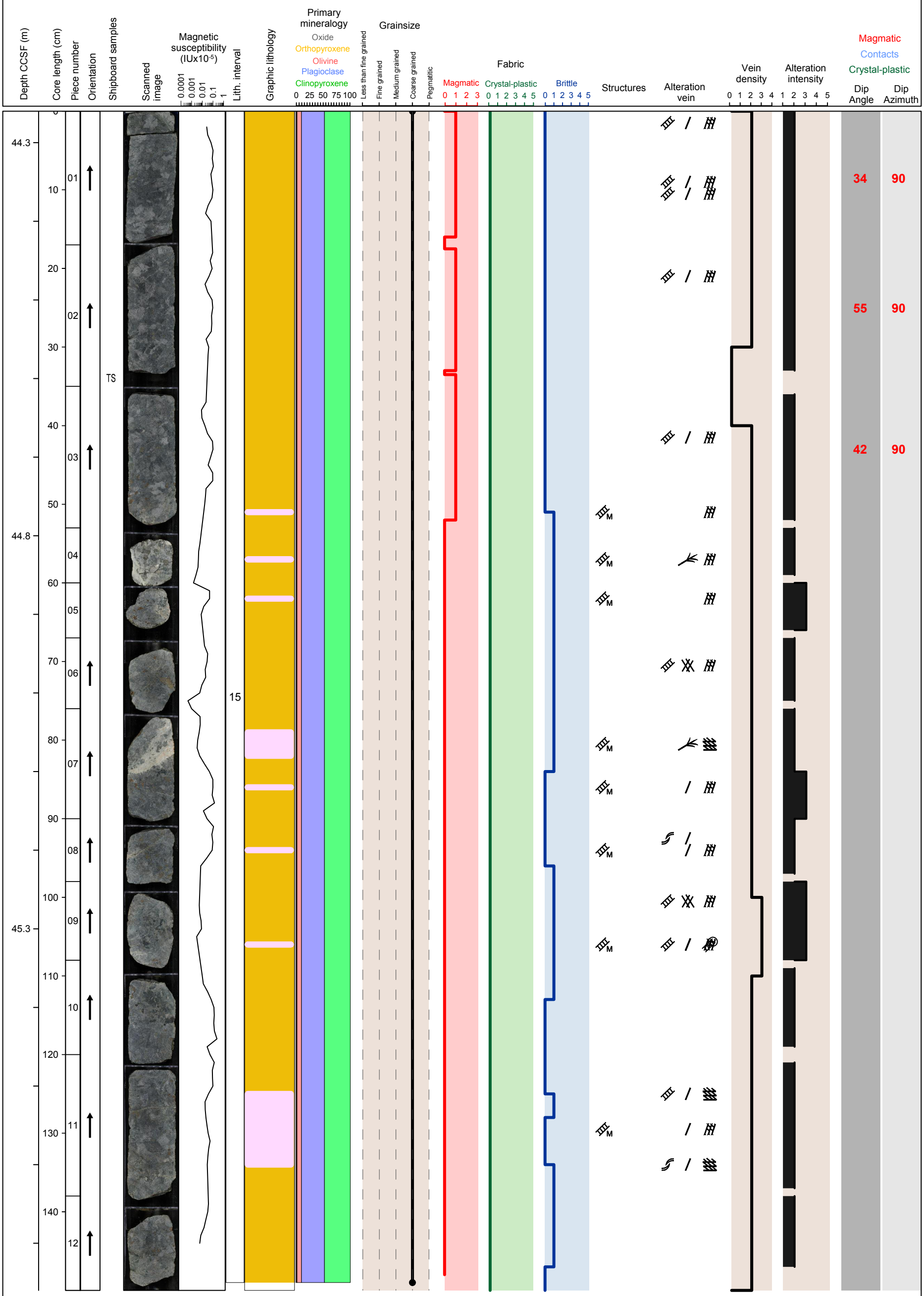


Hole 360-1105A-6R Section 2, Top of Section: 44.26 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic disseminated-oxide orthopyroxene bearing olivine gabbro (interval 15) with domains of coarser grained clinopyroxene and numerous felsic veins

Metamorphic Petrology: The section is moderately to highly altered. Brownish clay are frequently observed throughout the section.

Structural Geology: There is a branching magmatic vein. The magmatic fabrics are inclined defined by pyroxene and locally olivine.

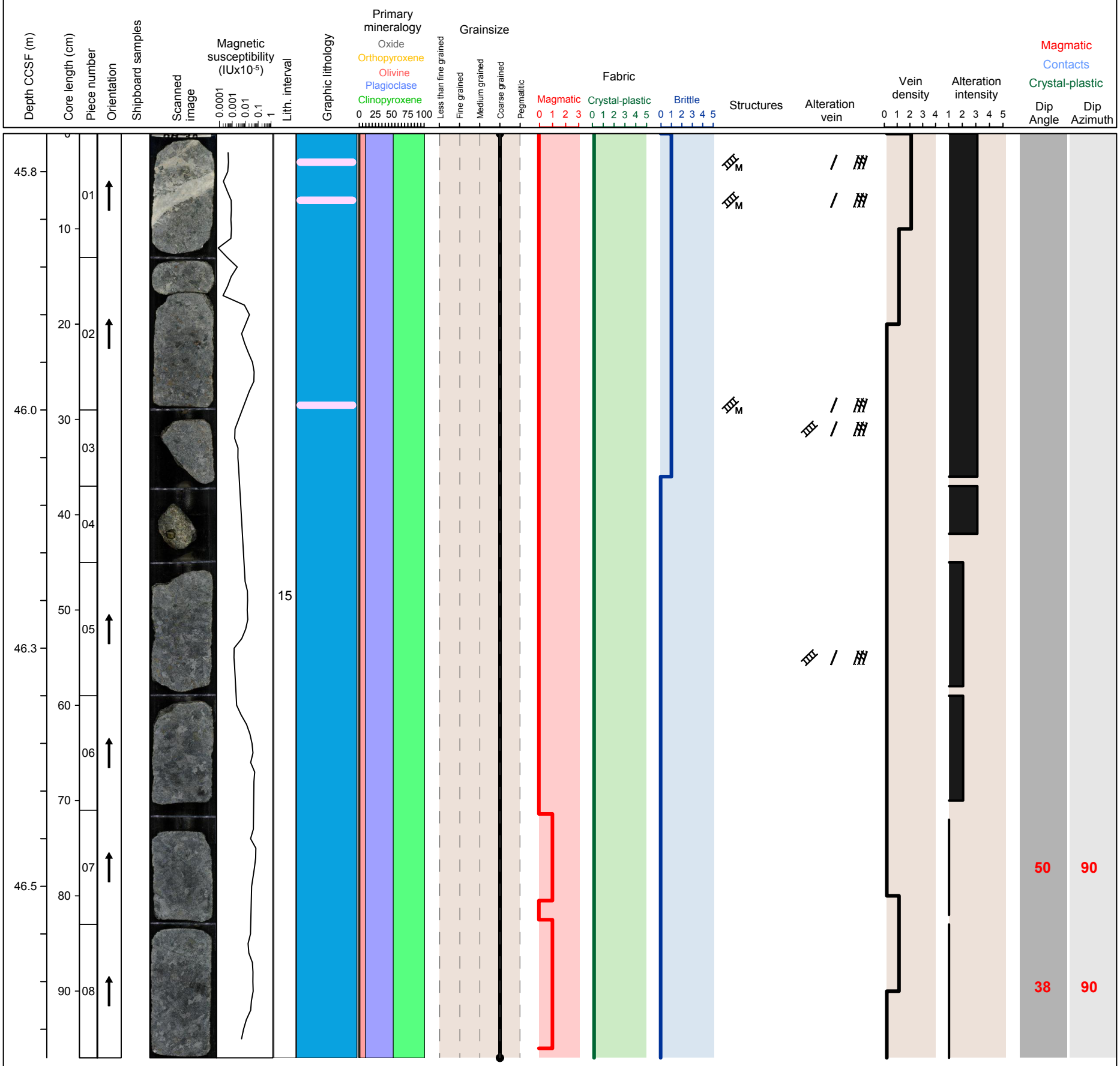


Hole 360-1105A-6R Section 3, Top of Section: 45.76 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic disseminated-oxide orthopyroxene bearing olivine gabbro (interval 15) with felsic veins from 0 to 13cm

Metamorphic Petrology: Most of the section is moderately to highly altered. Alteration minerals observed are brownish clay, amphibole, secondary plagioclase and chlorite.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. The alteration veins are sub-parallel to the magmatic veins.

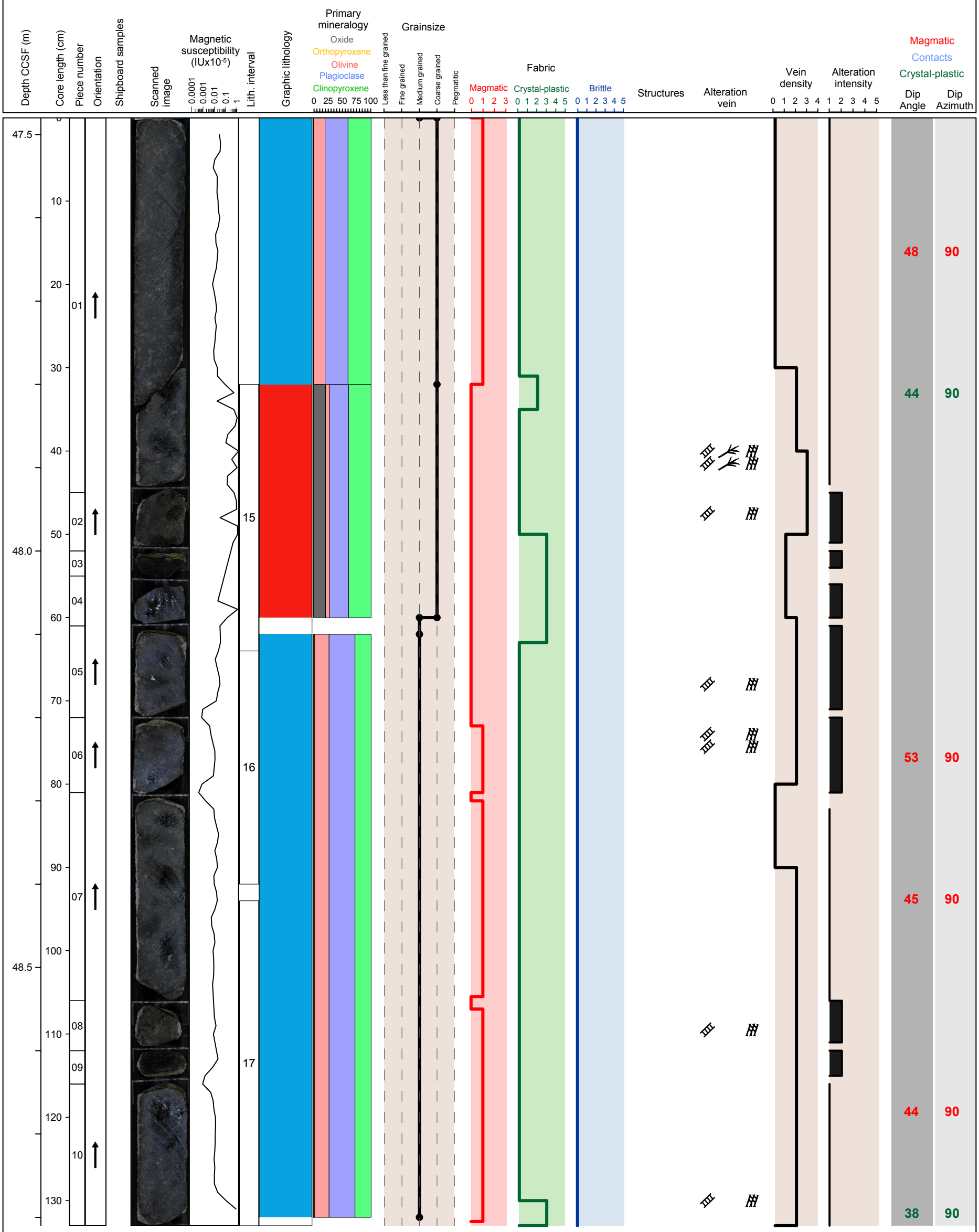


Hole 360-1105A-7R Section 1, Top of Section: 47.48 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 15), and medium grained subophitic orthopyroxene-bearing olivine gabbro (interval 17) with minor coarse grained porphyritic olivine oxide gabbro (interval 16)

Metamorphic Petrology: The section is weakly to moderately altered. Most of the alteration is associated with olivine replaced by red clay.

Structural Geology: The igneous contact is sheared. The magmatic fabrics are inclined and defined by pyroxene.

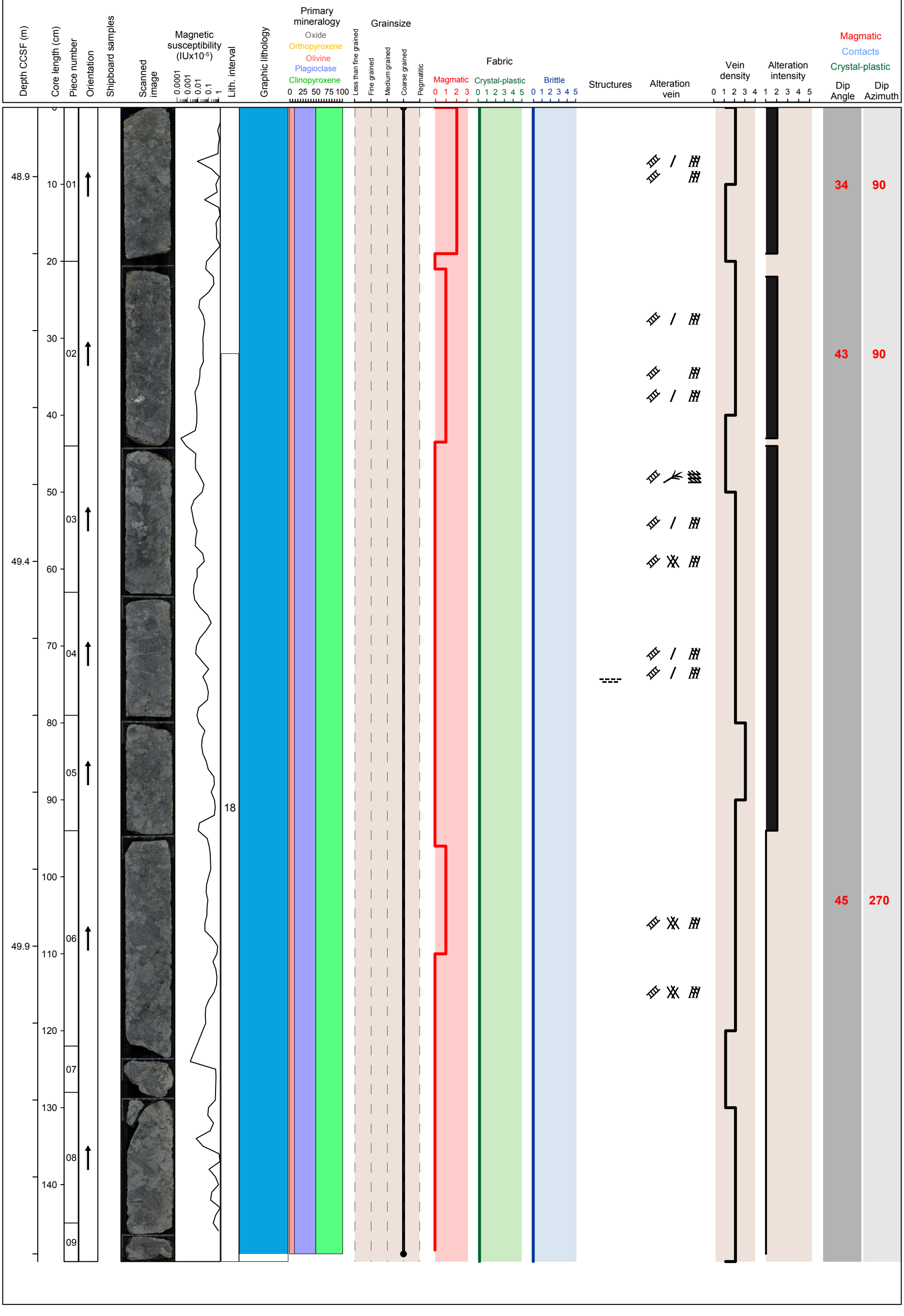


Hole 360-1105A-7R Section 2, Top of Section: 48.81 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine oxide gabbro (interval 18)

Metamorphic Petrology: The top part of the section is moderately altered while the bottom is rather fresh. Alteration is associated with veins where olivine alteration is more intense.

Structural Geology: The igneous contact is defined by a change in modal oxides. The magmatic fabrics are inclined and defined by pyroxene.

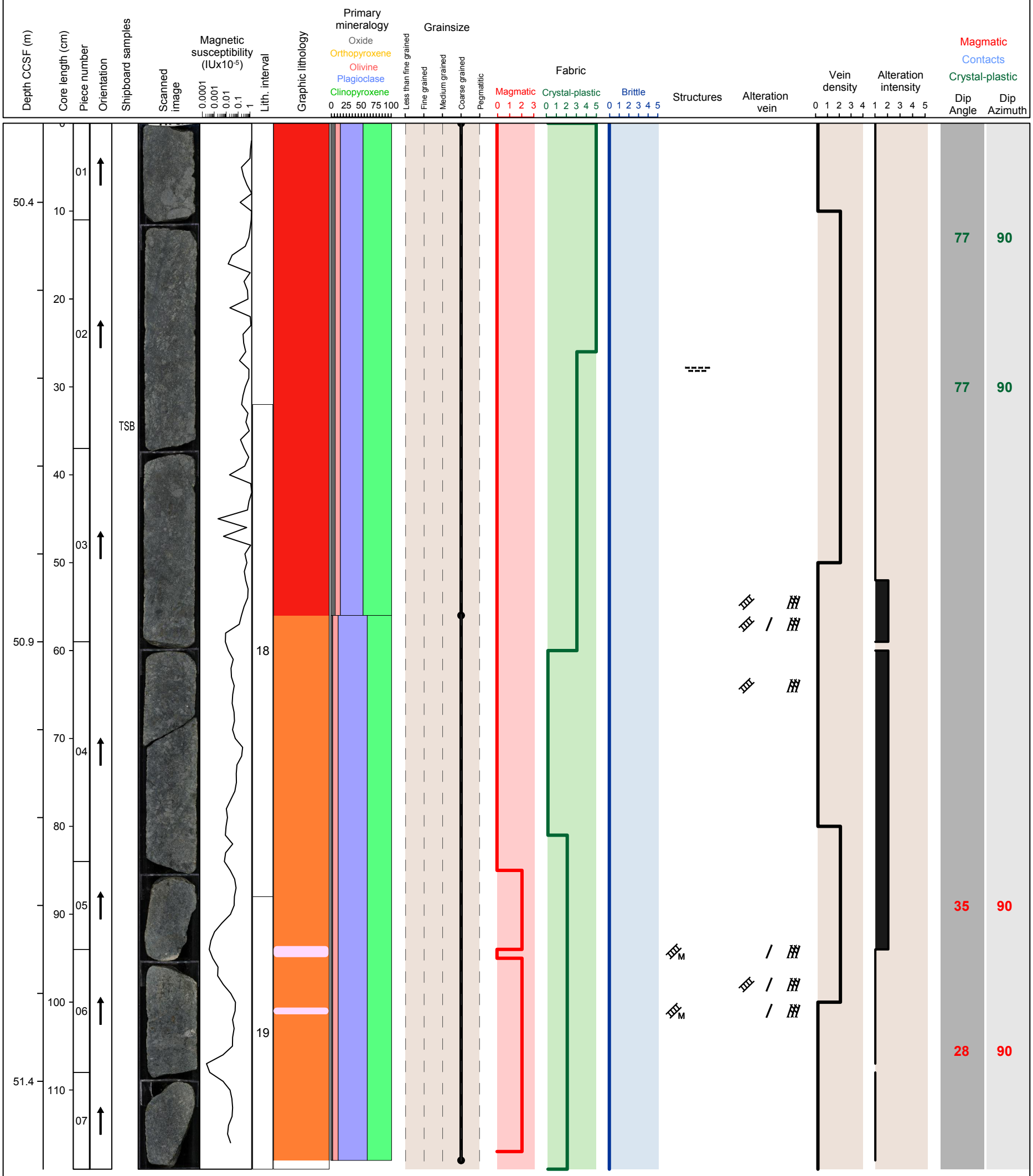


Hole 360-1105A-7R Section 3, Top of Section: 50.31 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine oxide gabbro and oxide-bearing gabbro (intervals 18 & 19, respectively), with one felsic vein

Metamorphic Petrology: The section is fresh with minor alteration of pyroxene into amphibole. Most of the alteration is associated in portions where veins were observed.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. The crystal plastic shear zone changes depth from moderate to steep.

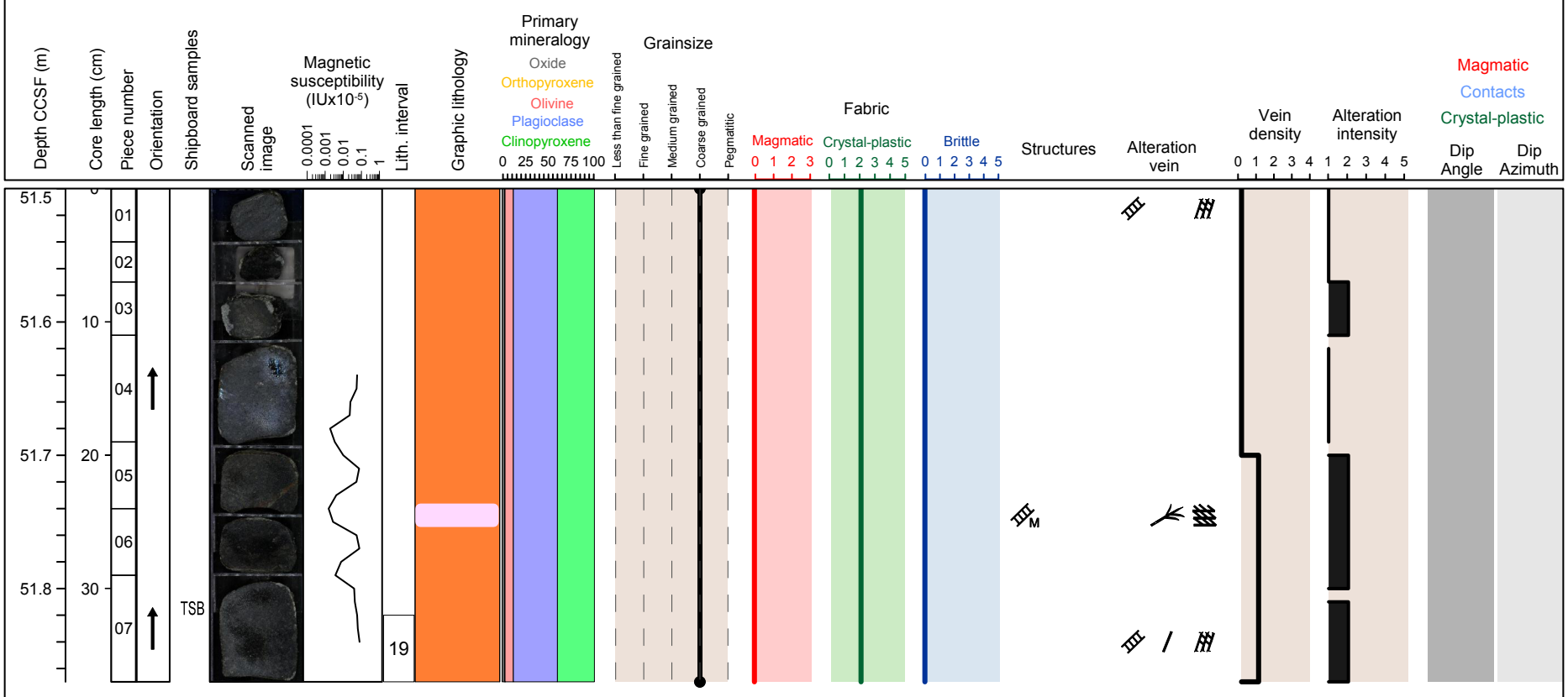


Hole 360-1105A-7R Section 4, Top of Section: 51.5 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic oxide-bearing olivine gabbro (interval 19), with one felsic vein

Metamorphic Petrology: Mylonitic zone has cpx and pl porphyroclasts and neoblasts; Static background alteration is slight; Alteration minerals are mainly amp and chl.

Structural Geology: The crystal plastic fabric is close to vertical and dextral.

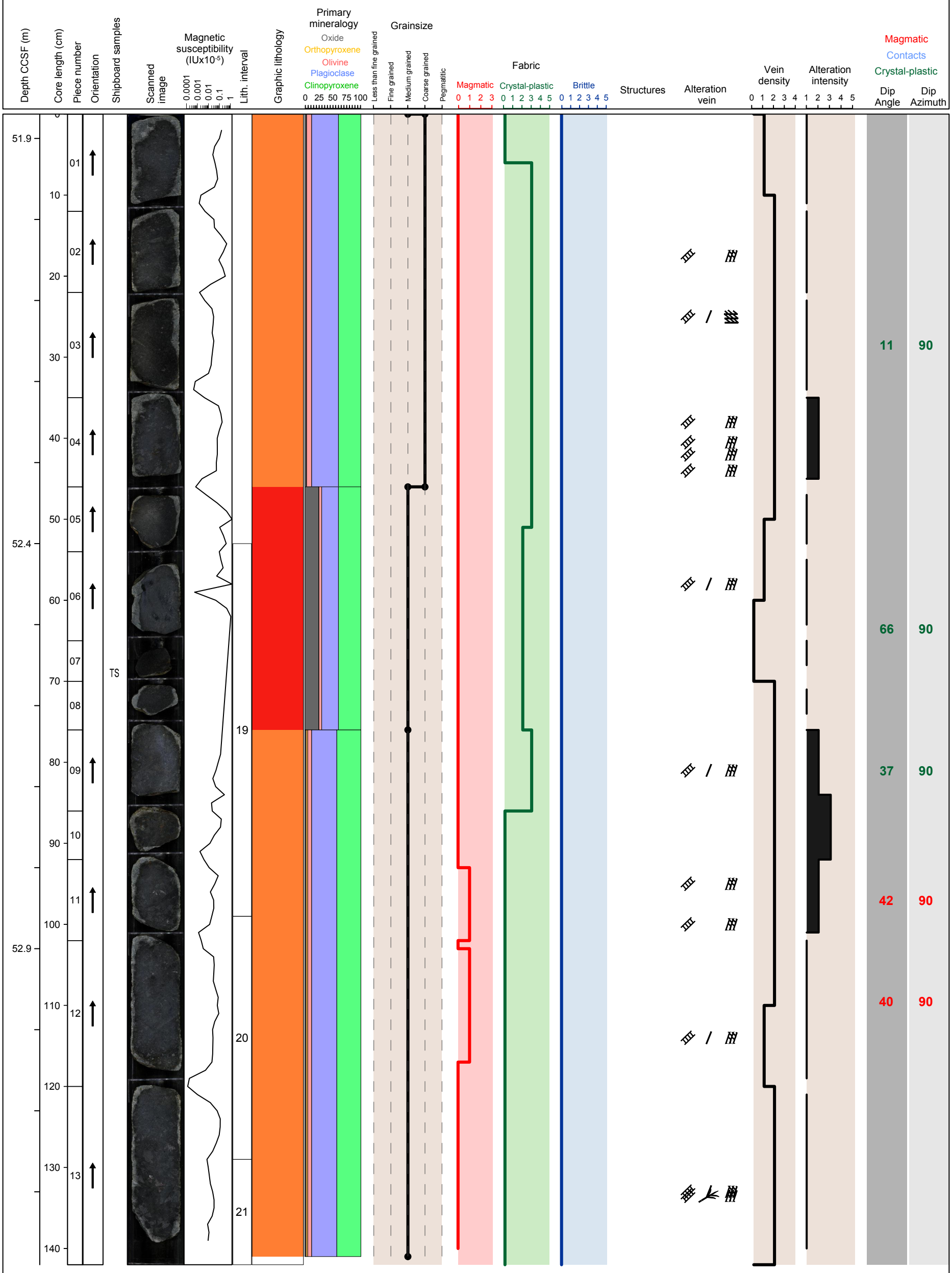


Hole 360-1105A-8R Section 1, Top of Section: 51.87 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained oxide-bearing olivine gabbro, and medium grained oxide- and orthopyroxene-bearing olivine gabbro (intervals 19 & 21, respectively) with a highly deformed domain of olivine oxide gabbro (interval 20)

Metamorphic Petrology: Mylonitic zone has cpx and pl porphyroclasts and neoblasts; Static background alteration intensity is slight; Alteration minerals are mainly amphibole and chlorite.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene.

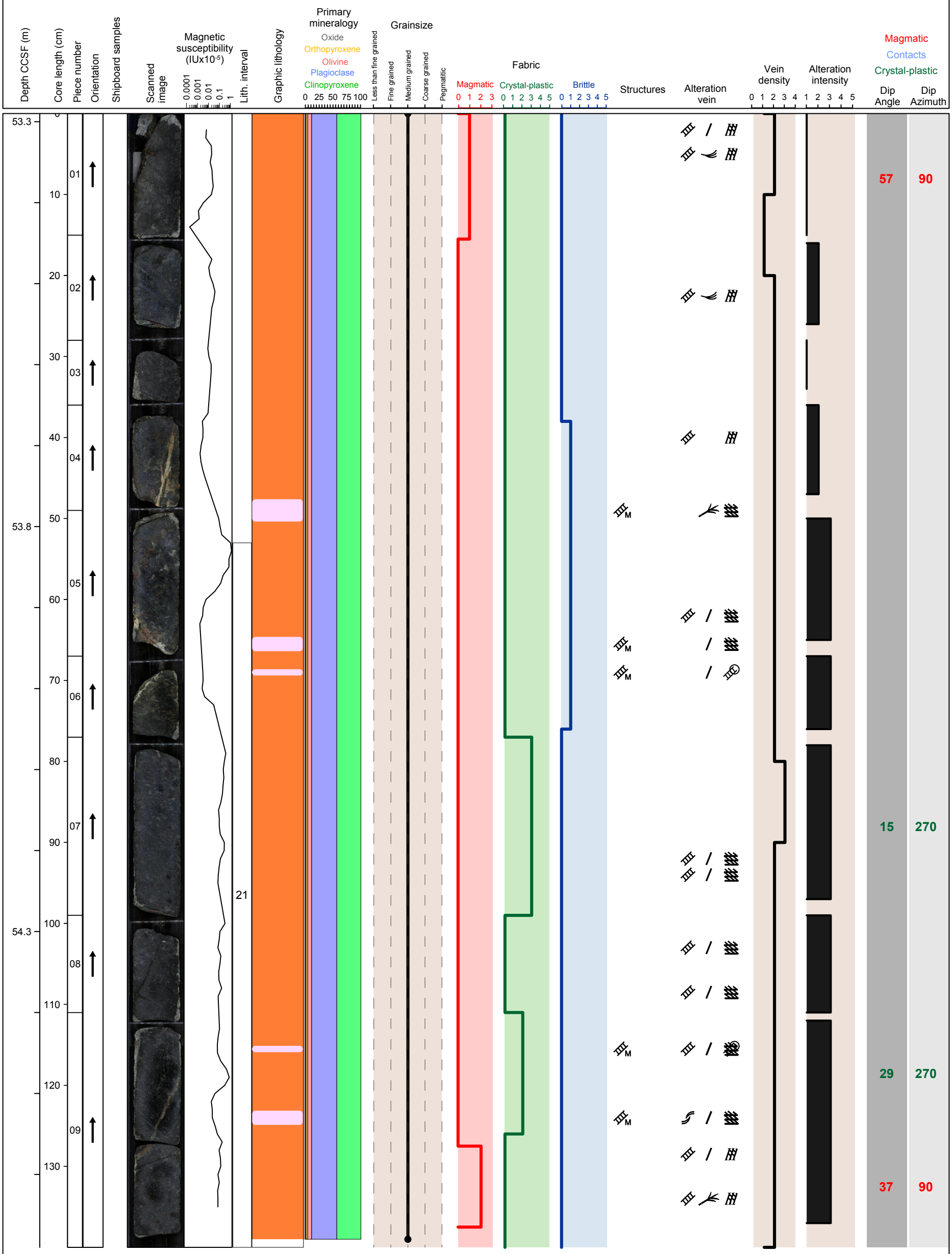


Hole 360-1105A-8R Section 2, Top of Section: 53.29 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained subophitic oxide- and orthopyroxene-bearing gabbro with domains of coarse grained intergranular oxide gabbro (interval 21), with numerous felsic veins

Metamorphic Petrology: Alteration is slight to moderate. Common secondary minerals observed are brownish clay, amphibole, chlorite and secondary plagioclase

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. The crystal plastic shear zone is steeply dipping and crosscut by magmatic veins. There is a parallel set of clay veins.

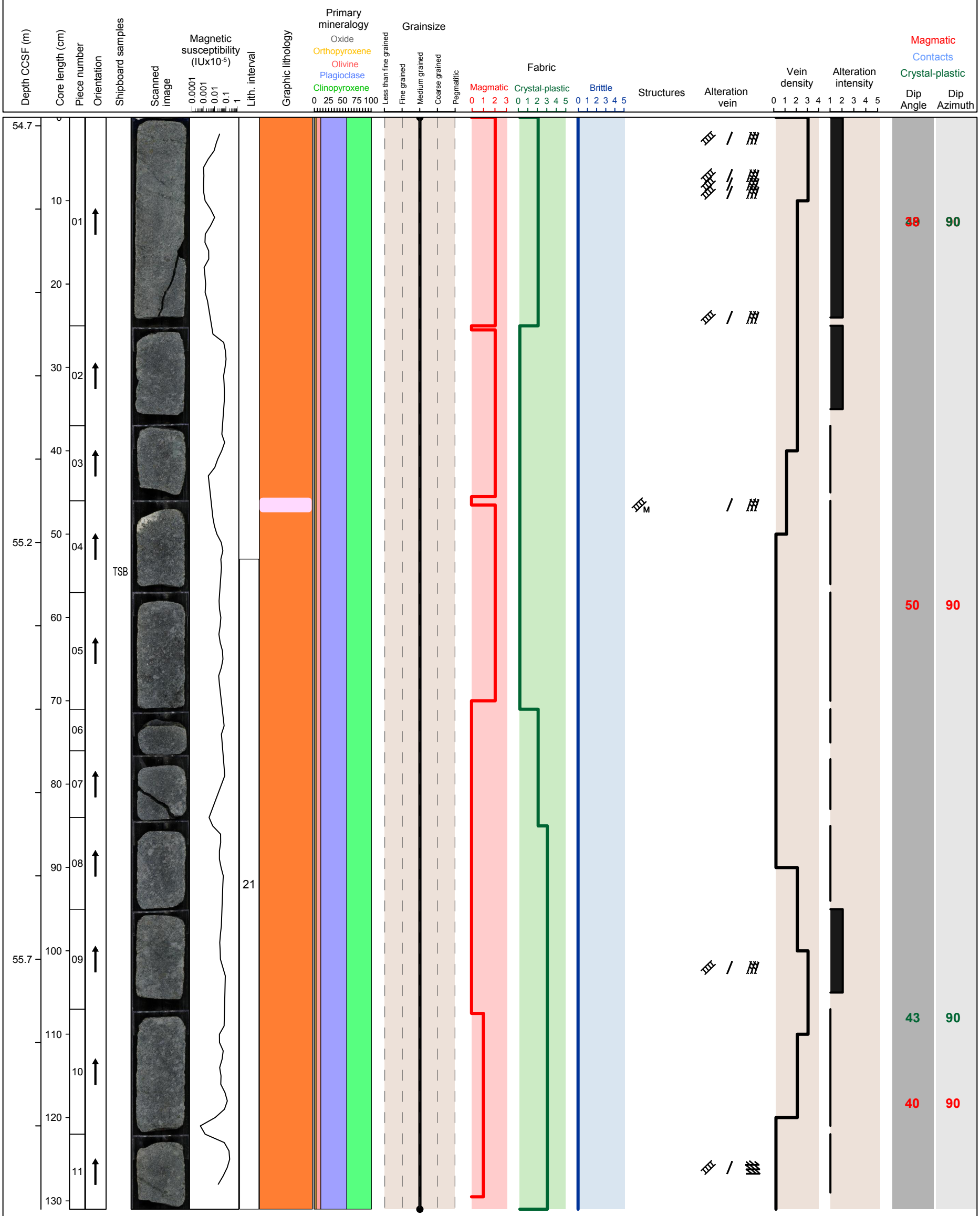


Hole 360-1105A-8R Section 3, Top of Section: 54.69 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained subophitic oxide- and orthopyroxene-bearing olivine gabbro (interval 21), with one felsic vein

Metamorphic Petrology: The section is mostly fresh (<10% alteration).

Structural Geology: The igneous contact is sheared. The magmatic fabrics are inclined and defined by pyroxene. The crystal plastic fabric is sub-horizontal and grades into a magmatic fabric.

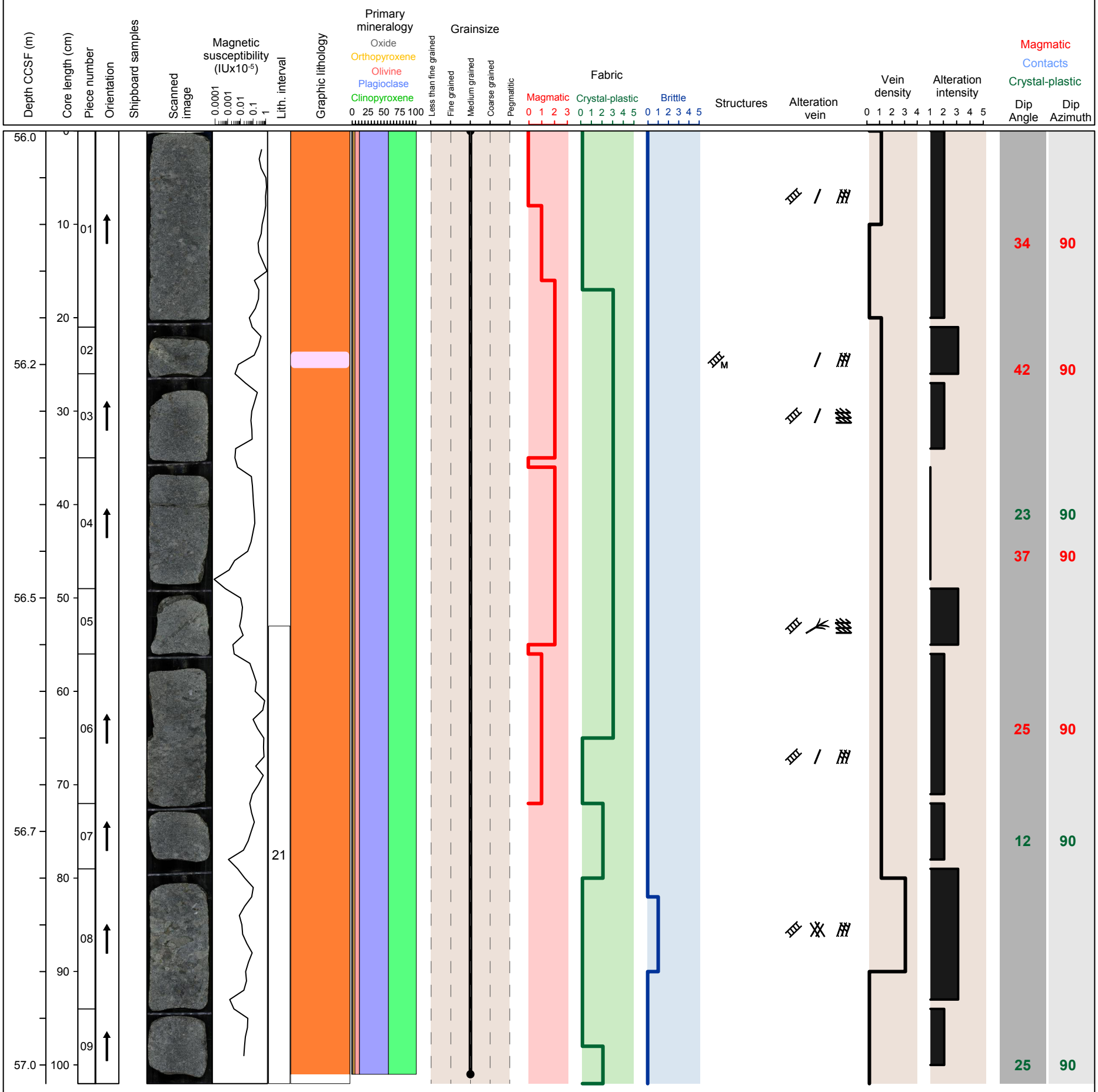


Hole 360-1105A-8R Section 4, Top of Section: 56.0 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained subophitic oxide- and orthopyroxene-bearing olivine gabbro (interval 21), with one felsic vein

Metamorphic Petrology: The section is slightly to moderately altered. Alteration commonly observed is amphibole, secondary plagioclasem chlorite and brownish clay.

Structural Geology: The igneous contact is sub-horizontal between fine grained and coarser grained rocks. The magmatic fabrics are inclined and defined by pyroxene. The crystal plastic fabric is moderately dipping.

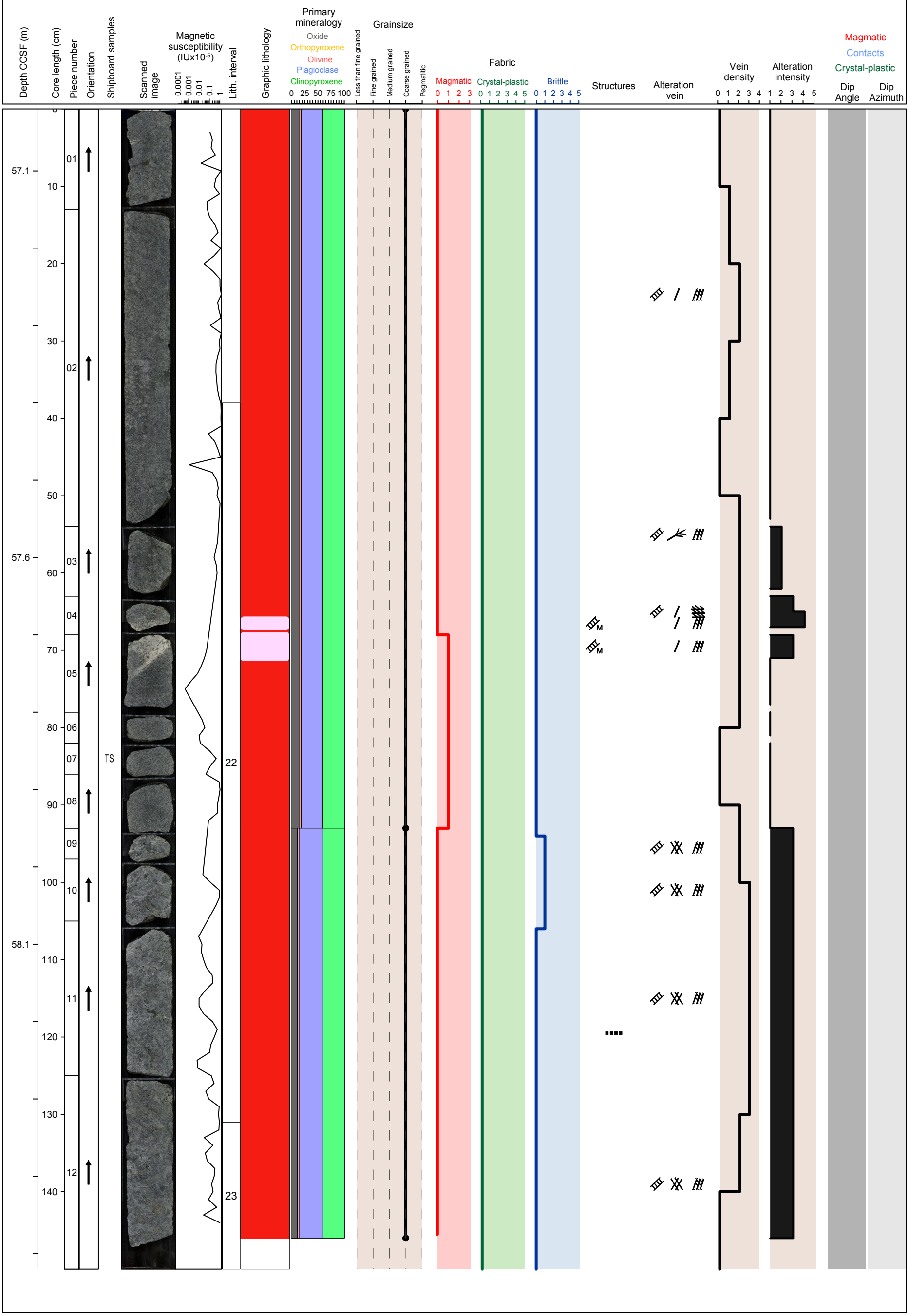


Hole 360-1105A-9R Section 1, Top of Section: 57.02 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained to very coarse grained subophitic olivine-bearing oxide gabbro (intervals 22 & 23), with two felsic veins

Metamorphic Petrology: Mylonitic zone has cpx and pl porphyroclasts and neoblasts; Static background alteration intensity is slight to substantial; Alteration minerals are mainly amp, chlorite and brown clay; Alteration is more intense along felsic veins.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. The crysal plastic shear zone consists of coarse and fine grained rocks and shallowly dipping. There is a microvein network from 83-88 cm.

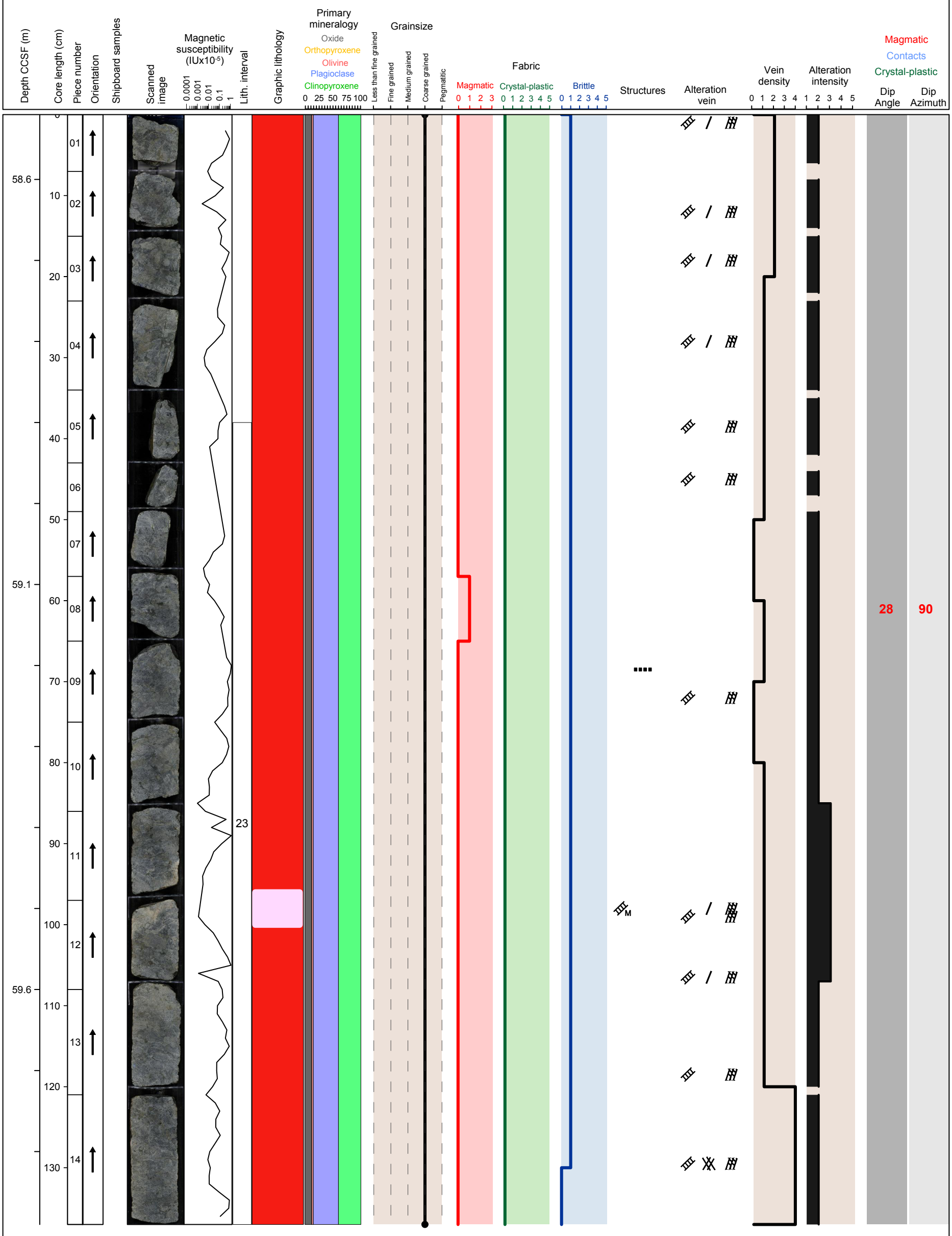


Hole 360-1105A-9R Section 2, Top of Section: 58.52 m (CCSF-179-1105-A-20151216)

Igneous Petrology: very coarse grained subophitic olivine-bearing oxide gabbro (interval 23), with one felsic vein

Metamorphic Petrology: The section consists of fresh rocks. Moderate to marked alteration is localized to those near veins.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene.

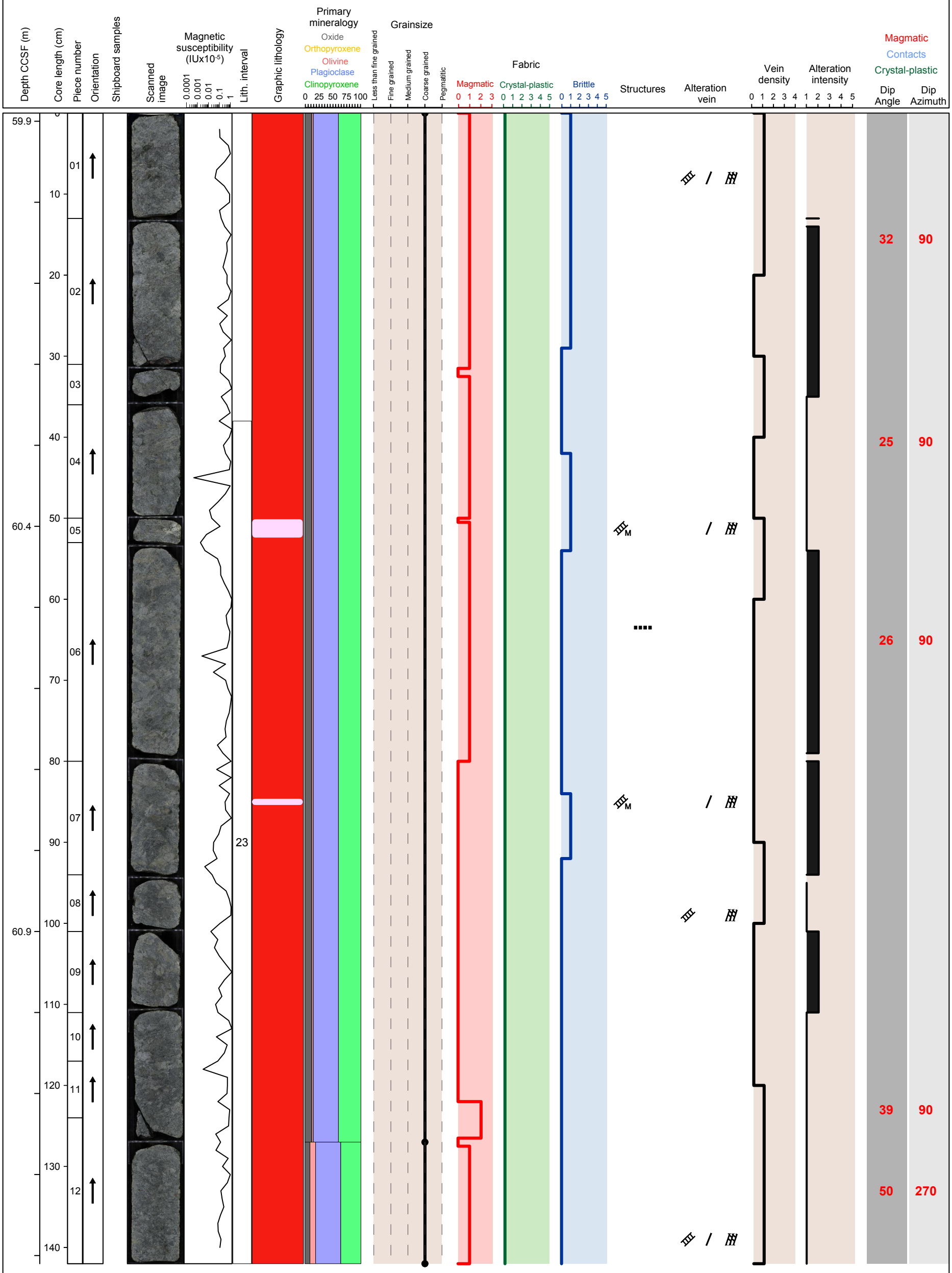


Hole 360-1105A-9R Section 3, Top of Section: 59.89 m (CCSF-179-1105-A-20151216)

Igneous Petrology: very coarse grained subophitic olivine-bearing oxide gabbro (interval 23), and coarse grained subophitic olivine oxide gabbro (interval 24), with two felsic veins

Metamorphic Petrology: The section is slightly to moderately altered. Alteration minerals are mainly amphibole, secondary plagioclase and chlorite.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. The veins are parallel filled with amphibole and inclined.

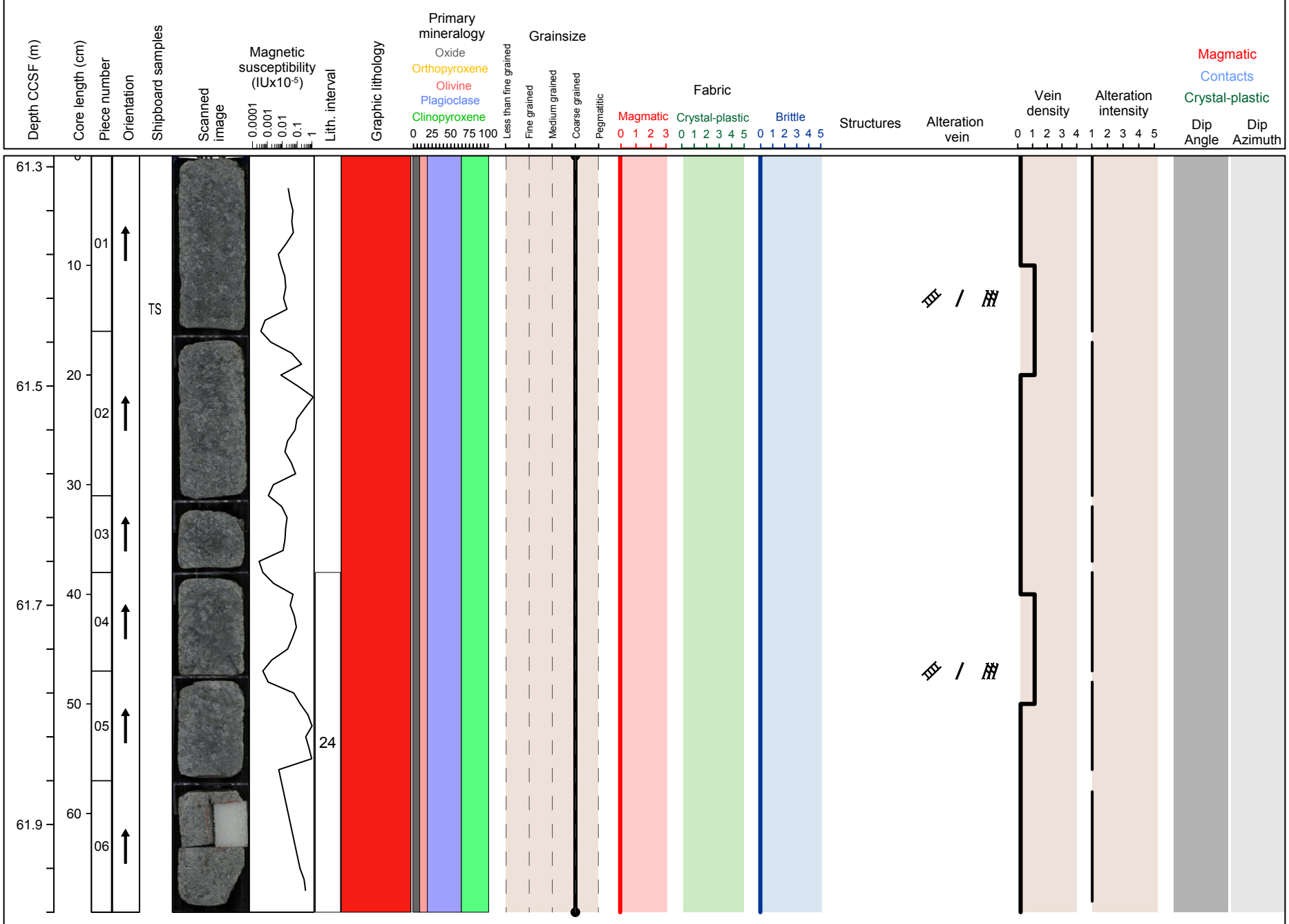


Hole 360-1105A-9R Section 4, Top of Section: 61.31 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine oxide gabbro (interval 24)

Metamorphic Petrology: Static background alteration intensity is slight; alteration minerals are mainly amphibole and chlorite.

Structural Geology: The igneous contact is gently dipping.

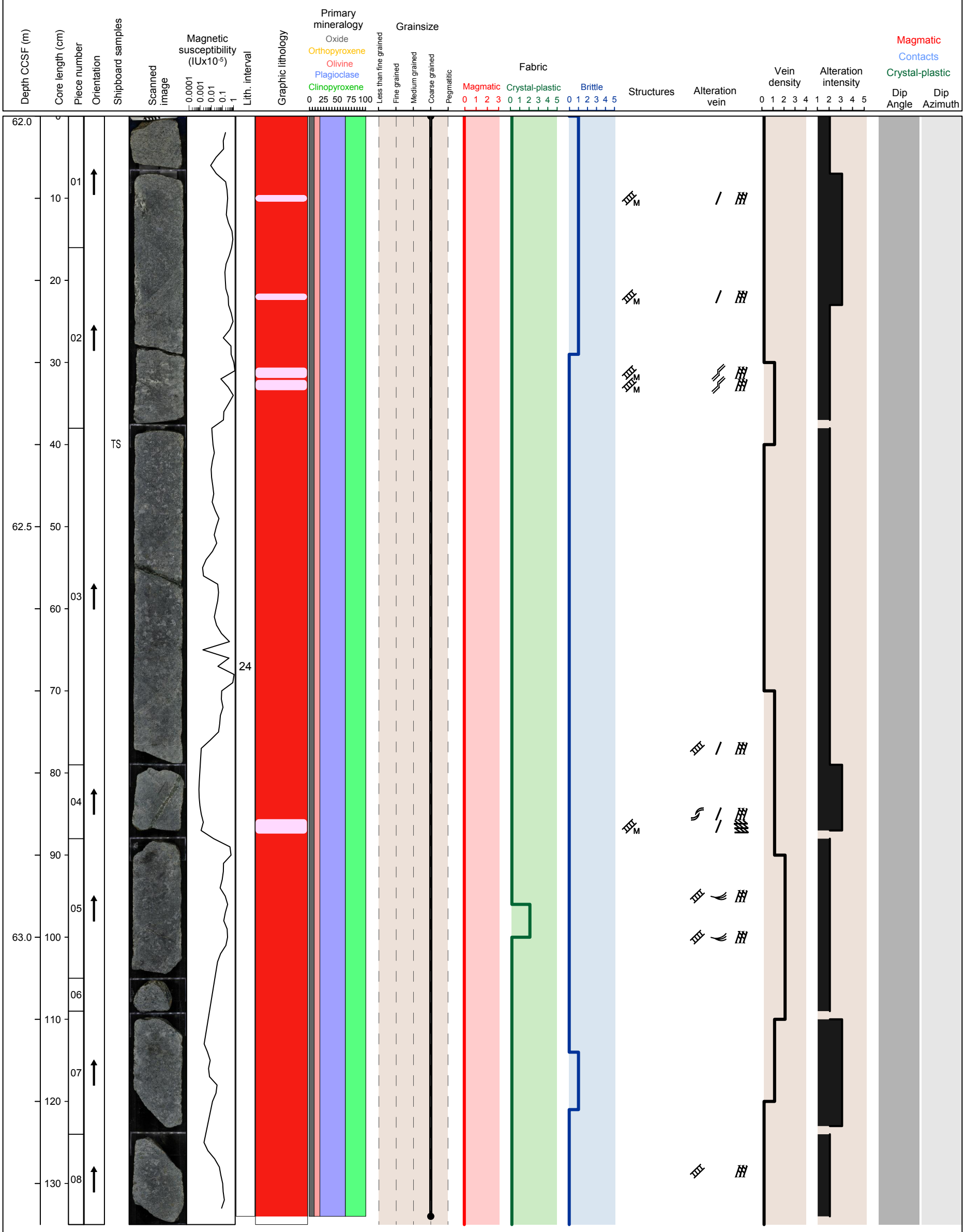


Hole 360-1105A-10R Section 1, Top of Section: 62.0 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine oxide gabbro (interval 24), with three felsic veins

Metamorphic Petrology: The section is moderately altered. Alteration commonly observed is amphibole, secondary plagioclase, chlorite and brownish clay. Leucocratic veins are also frequently observed.

Structural Geology: The fine grained rocks crosscut coarser grained rocks.

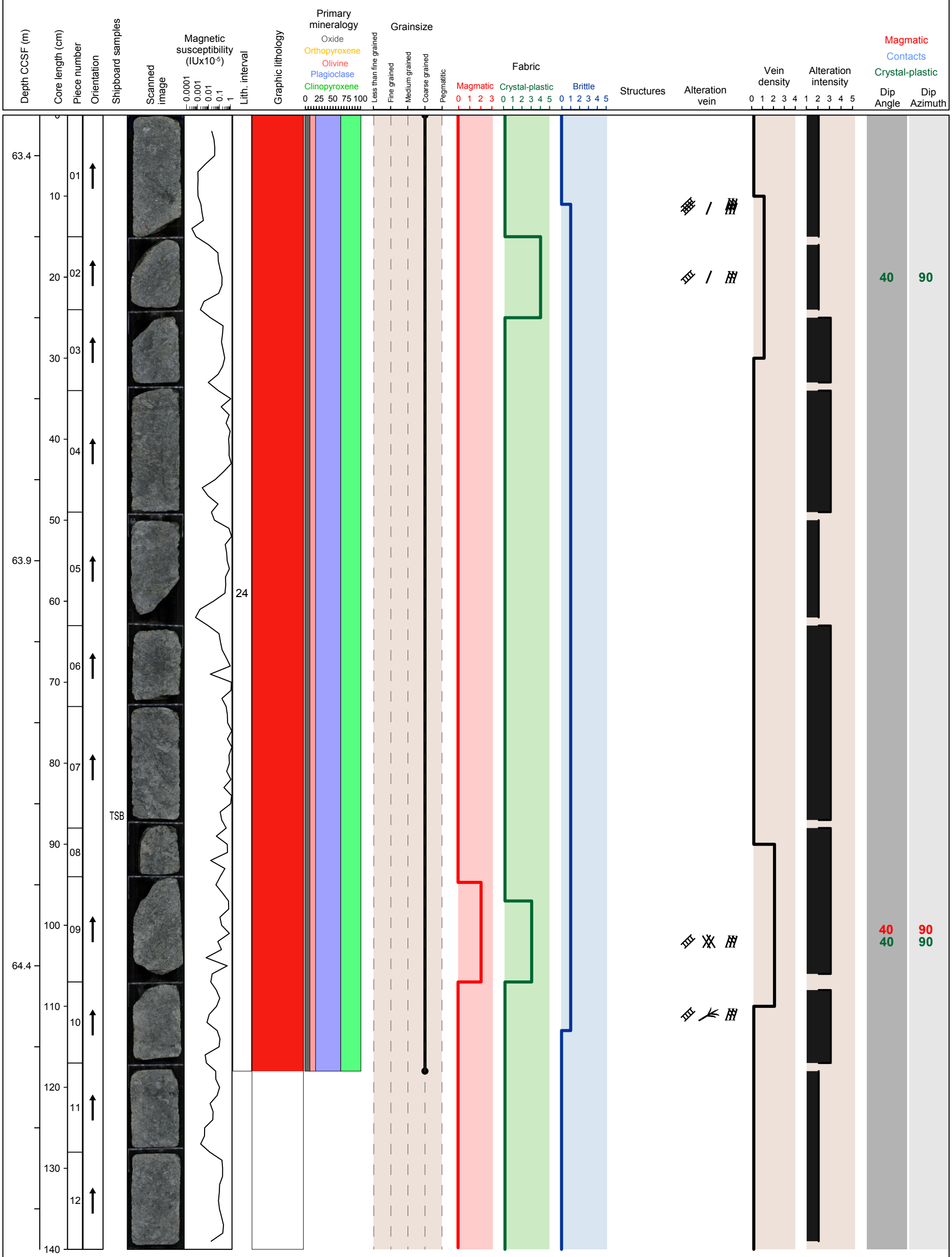


Hole 360-1105A-10R Section 2, Top of Section: 63.35 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine oxide gabbro (interval 24) with domains of very coarse grained gabbro

Metamorphic Petrology: The section is moderately altered. Alteration commonly observed is amphibole, secondary plagioclase and chlorite.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene.

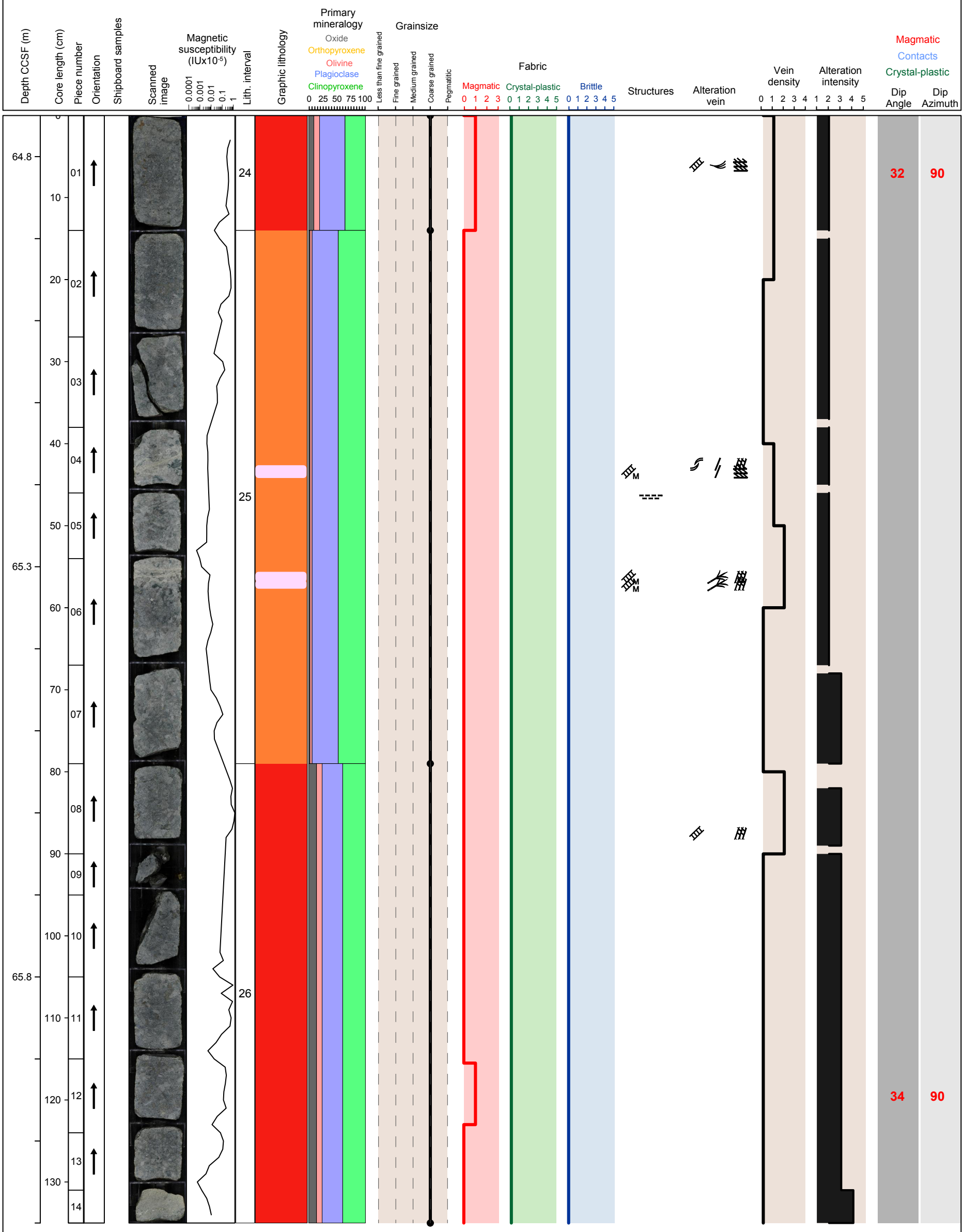


Hole 360-1105A-10R Section 3, Top of Section: 64.75 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine oxide gabbro (intervals 24 & 26), and oxide- and olivine-bearing gabbro (interval 25), with one felsic vein

Metamorphic Petrology: Alteration is mostly slight to moderate with a portion of substantial alteration associated with a leucocratic vein.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. The crystal plastic fabric is moderately dippping.

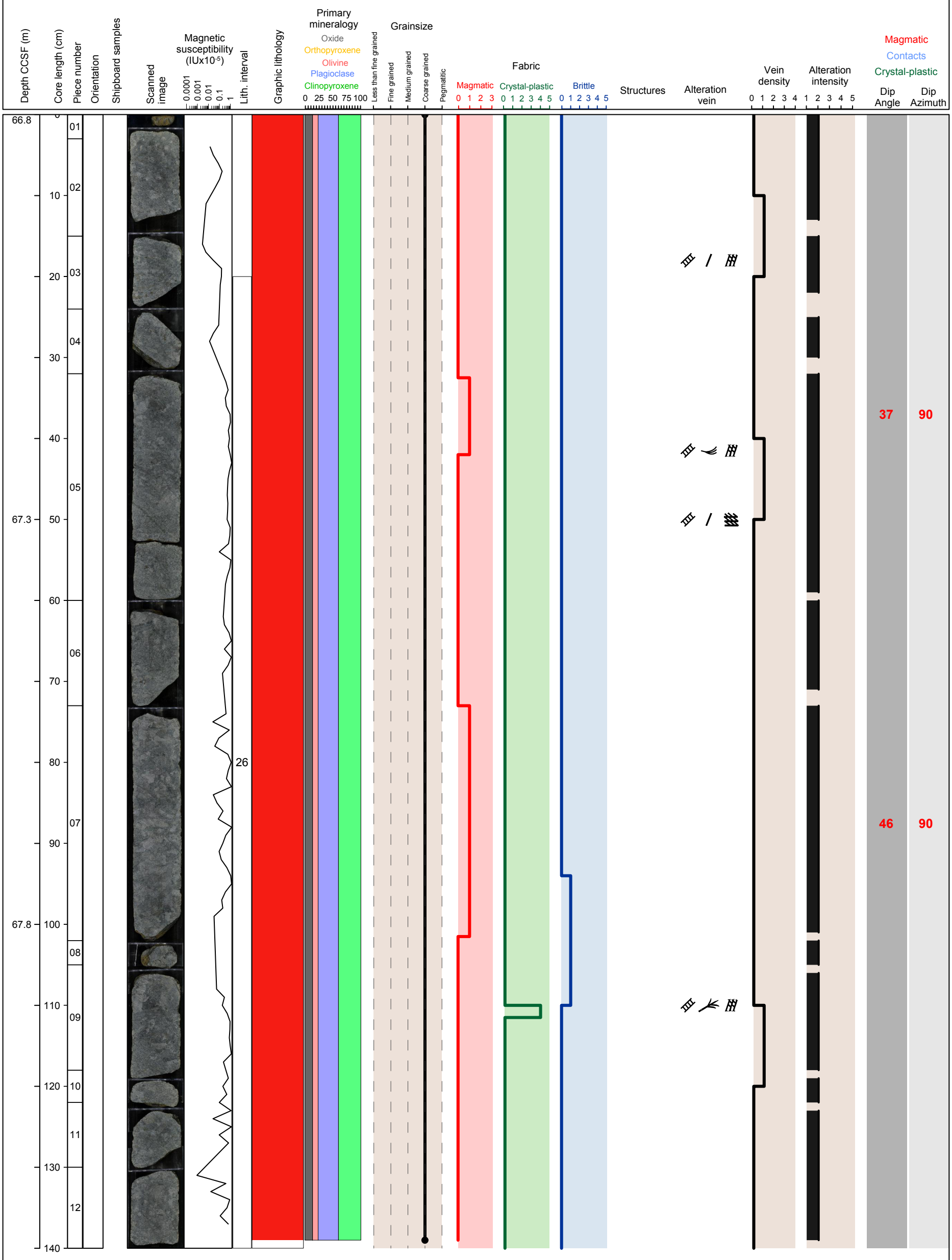


Hole 360-1105A-11R Section 1, Top of Section: 66.8 m (CCSF-179-1105-A-20151216)

Igneous Petrology: Coarse grained subophitic olivine oxide gabbro (interval 26)

Metamorphic Petrology: The section is moderately altered. Alteration commonly observed is amphibole, secondary plagioclase and chlorite.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. The crystal plastic fabrics are gently dipping.

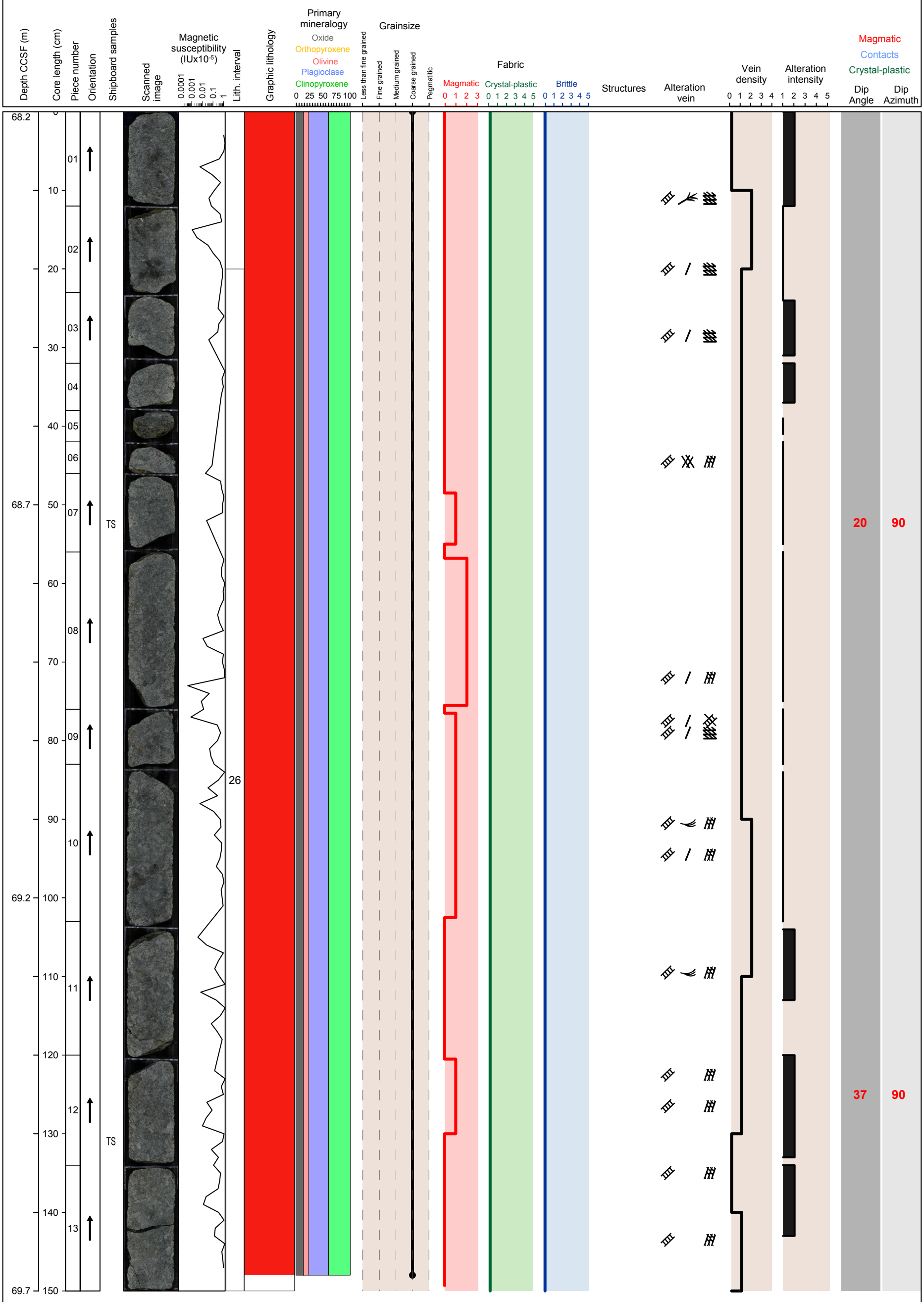


Hole 360-1105A-11R Section 2, Top of Section: 68.2 m (CCSF-179-1105-A-20151216)

Igneous Petrology: Coarse grained subophitic olivine oxide gabbro (interval 26)

Metamorphic Petrology: Static background alteration intensity is slight to moderate; alteration minerals are mainly amphibole, chlorite and brown clay minerals.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. The crystal plastic shear zone has a moderate dip and grades into the magmatic fabrics. The fractured zone occurs near an oxide-rich zone at 110 cm.

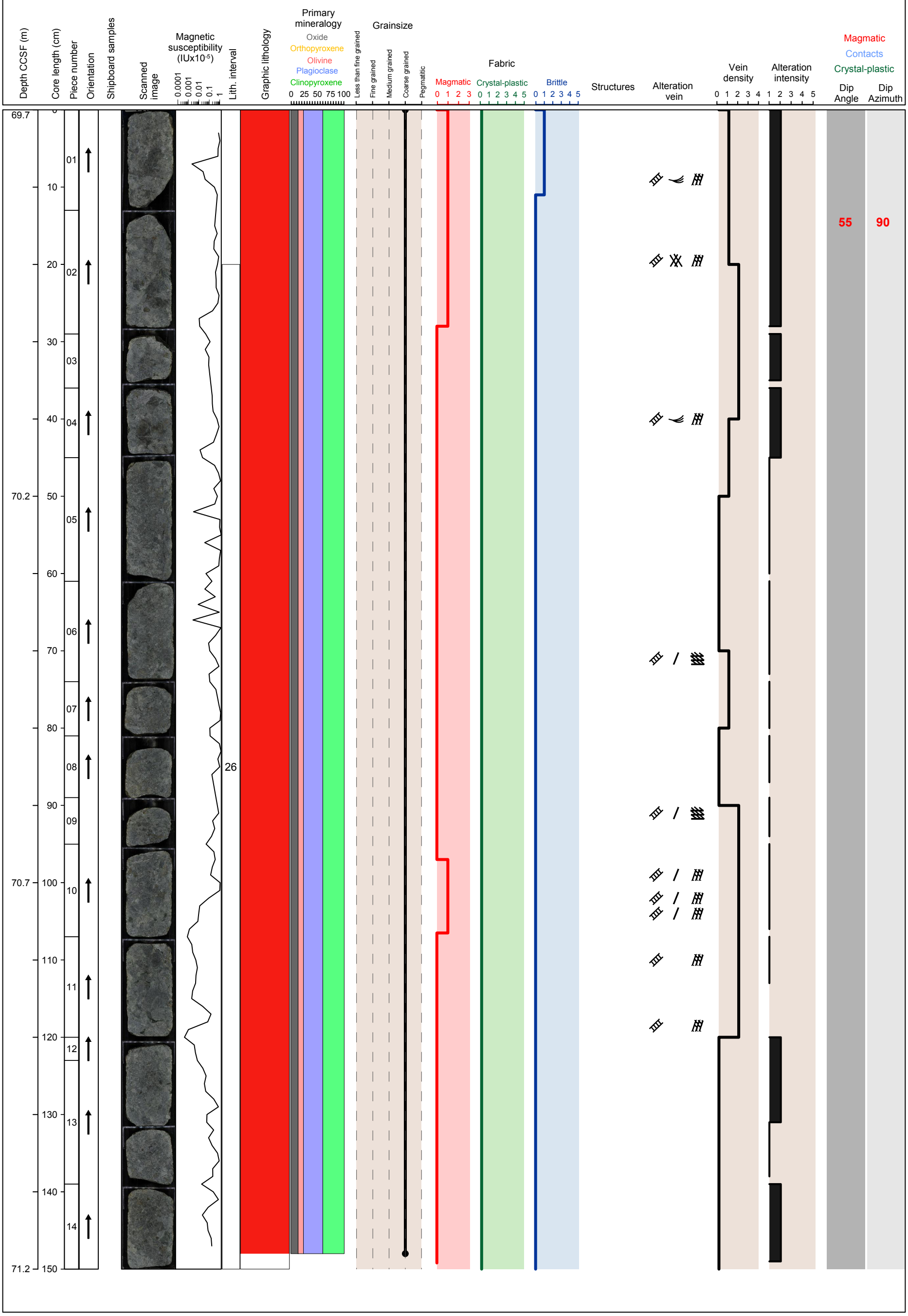


Hole 360-1105A-11R Section 3, Top of Section: 69.7 m (CCSF-179-1105-A-20151216)

Igneous Petrology: Coarse grained subophitic olivine oxide gabbro (interval 26)

Metamorphic Petrology: The section is fresh with alteration mostly associated with olivine moderately to markedly replaced by orange clay.

Structural Geology: The magmatic fabric is inclined and defined by pyroxene.

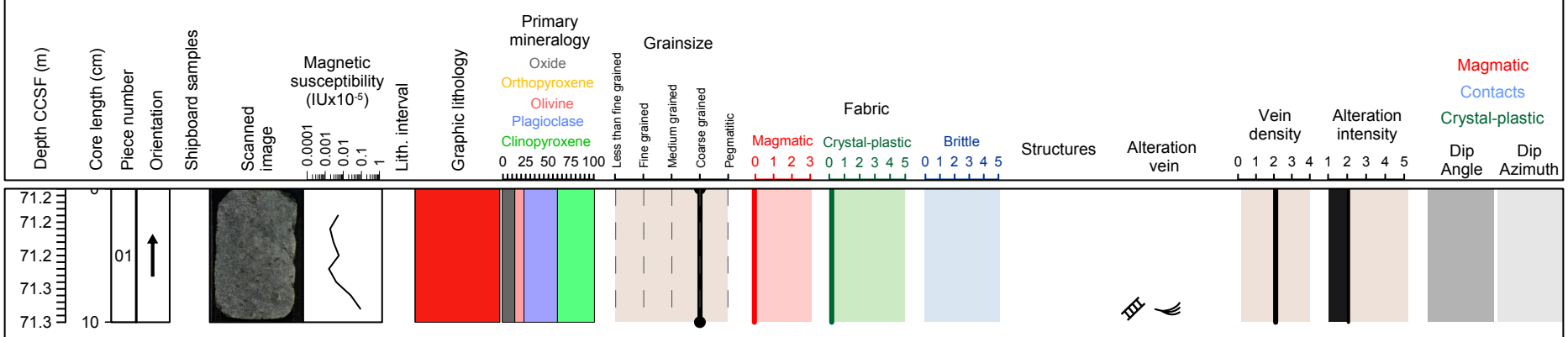


Hole 360-1105A-11R Section 4, Top of Section: 71.2 m (CCSF-179-1105-A-20151216)

Igneous Petrology: Coarse grained subophitic olivine oxide gabbro (interval 26)

Metamorphic Petrology: Static background alteration intensity is moderate; alteration minerals are mainly amphibole, chlorite and secondary plagioclase.

Structural Geology: There is a microvein network at 18-21 cm.

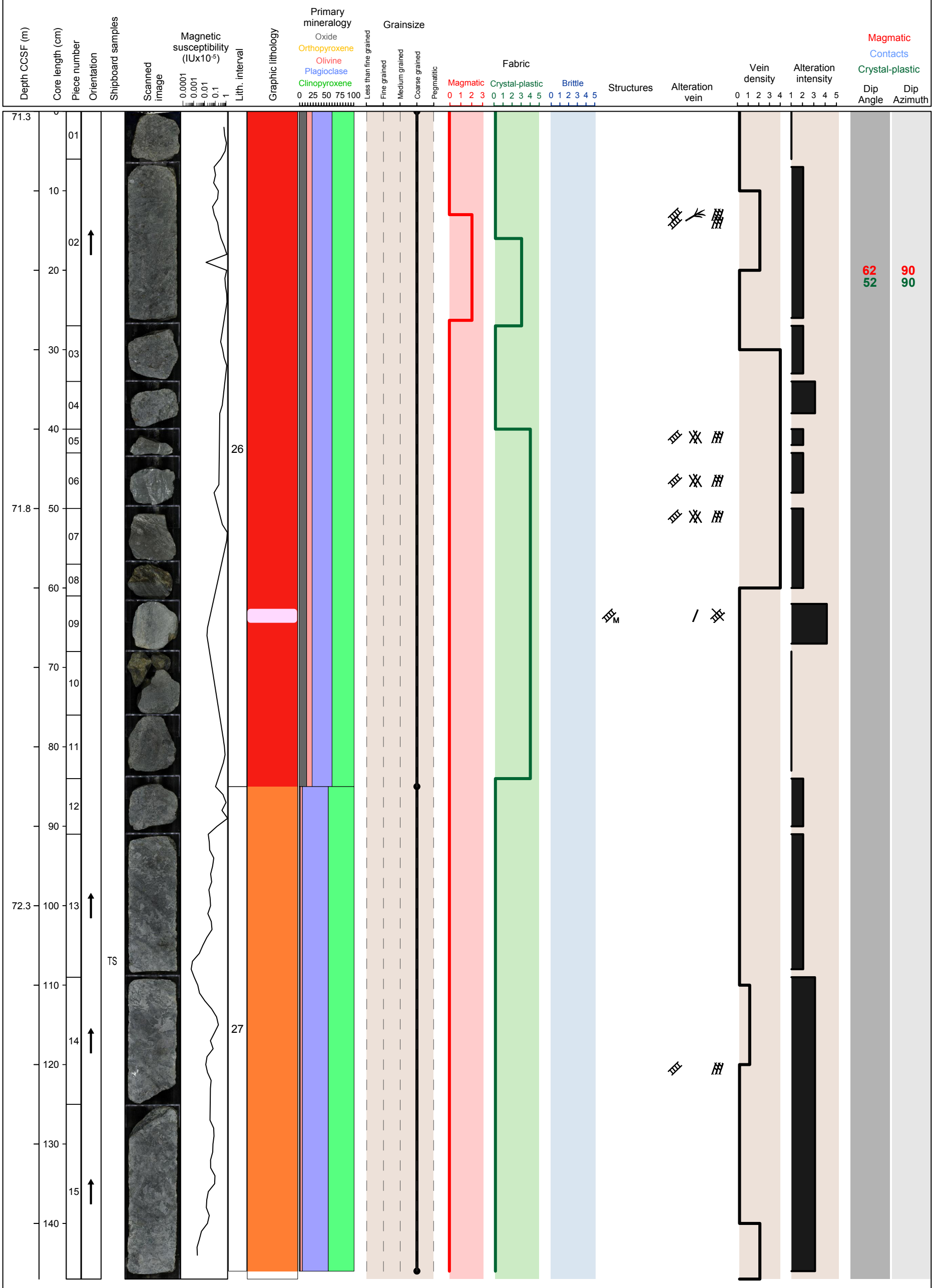


Hole 360-1105A-12R Section 1, Top of Section: 71.3 m (CCSF-179-1105-A-20151216)

Igneous Petrology: Coarse grained subophitic olivine oxide gabbro (interval 26), and coarse-grained subophitic oxide & olivine-bearing gabbro (interval 27) with one felsic vein

Metamorphic Petrology: Mylonitic zone has cpx/cpx and pl porphyroclasts; Static background alteration intensity is slight to substantial; Alteration minerals are mainly amp and chl.

Structural Geology: The magmatic fabric is inclined and defined by pyroxene and plagioclase. The crystal plastic shear zone is sub-vertical.

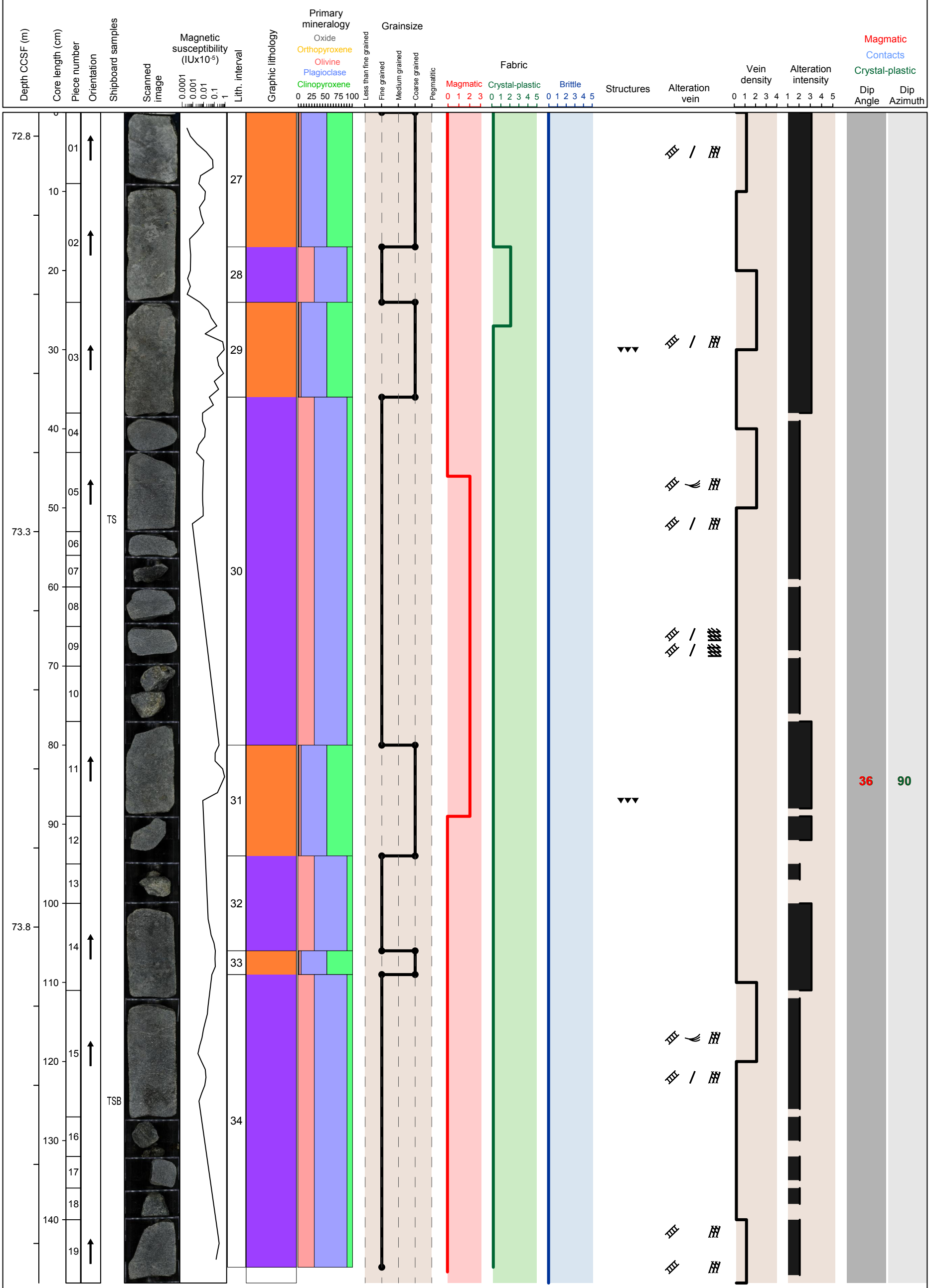


Hole 360-1105A-12R Section 2, Top of Section: 72.77 m (CCSF-179-1105-A-20151216)

Igneous Petrology: Coarse grained subophitic oxide & olivine-bearing gabbro (intervals 27, 29, 31 & 33), intruded by fine grained granular clinopyroxene-rich troctolite (intervals 28, 30, 32 & 34) with two felsic veins.

Metamorphic Petrology: Static background alteration intensity is moderate; alteration minerals are mainly amphibole, chlorite and secondary plagioclase.

Structural Geology: The fine grained rocks crosscut coarser grained rocks and are both cut by felsic veins. The magmatic fabrics are inclined defined by pyroxene. The shear zone is defined by plagioclase bands alternating with bands of pyroxene, olivine, and oxides with a moderate dip. The crystal plastic fabrics are crosscut by alteration veins.

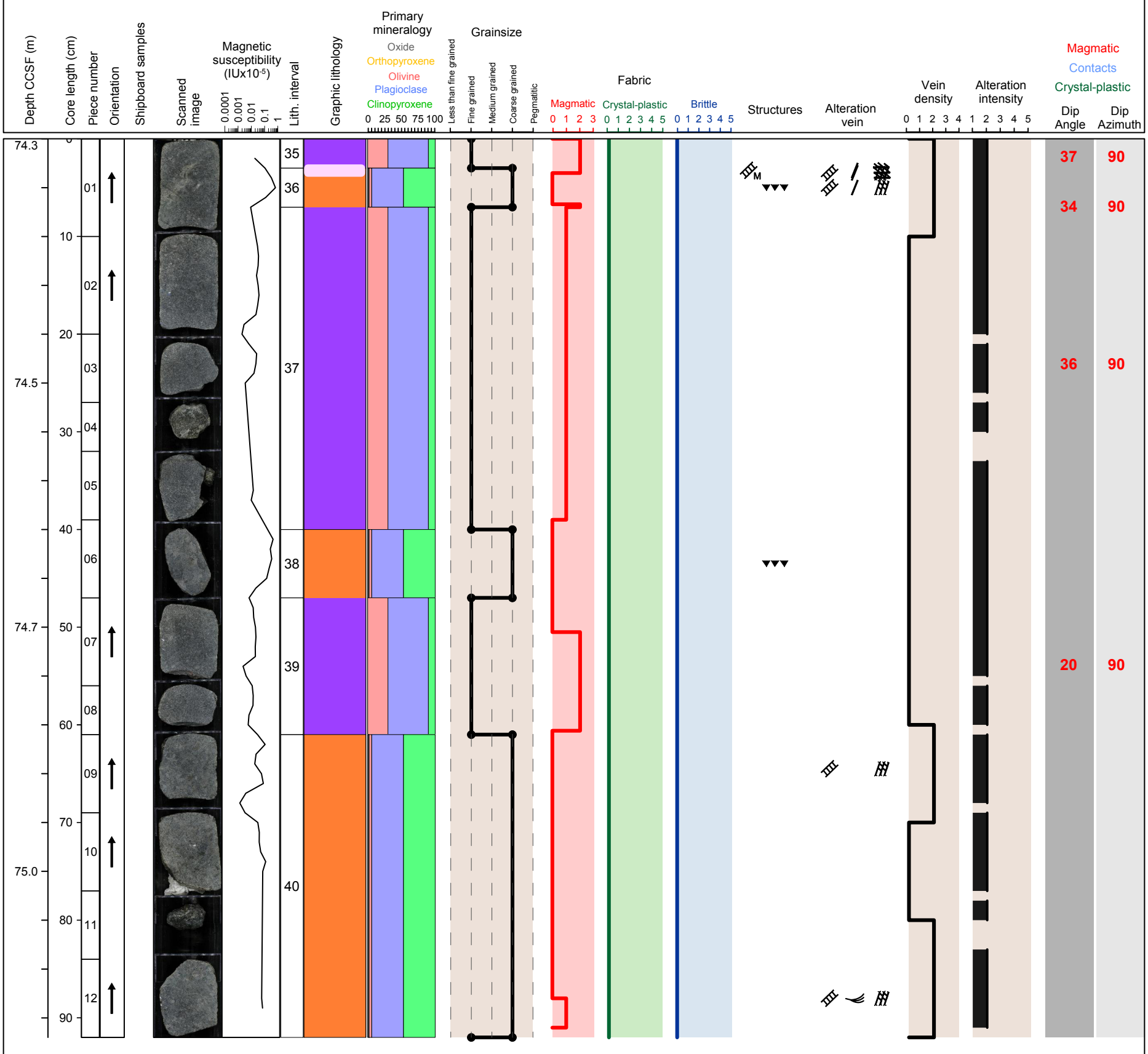


Hole 360-1105A-12R Section 3, Top of Section: 74.25 m (CCSF-179-1105-A-20151216)

Igneous Petrology: Coarse grained subophitic oxide & olivine-bearing gabbro (intervals 36, 38 & 40), intruded by fine grained granular clinopyroxene-rich troctolite (intervals 35, 37 & 39) with one felsic vein

Metamorphic Petrology: Static background alteration intensity is moderate; alteration minerals are mainly amphibole, chlorite and secondary plagioclase.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene.

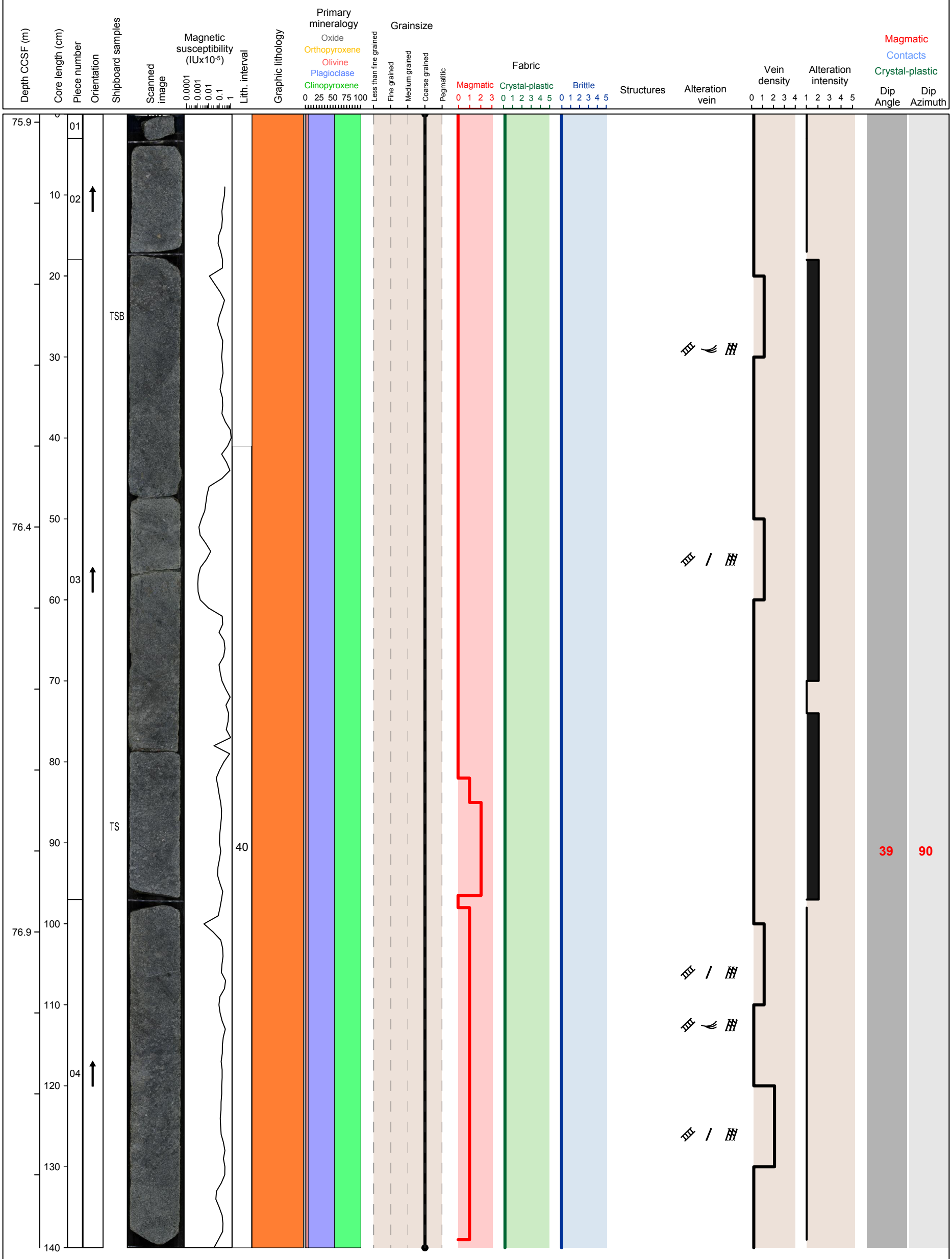


Hole 360-1105A-13R Section 1, Top of Section: 75.89 m (CCSF-179-1105-A-20151216)

Igneous Petrology: Coarse grained subophitic oxide & olivine-beraing gabbro (interval 40) with two domains of varing grian sizes (fine grained granular clinopyroxene-rich troctolite and coarse grained ophitic olivine gabbro)

Metamorphic Petrology: Static background alteration intensity is slight; Alteration minerals are mainly amphibole, 2nd plagioclase and chlorite.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene and plagioclase.

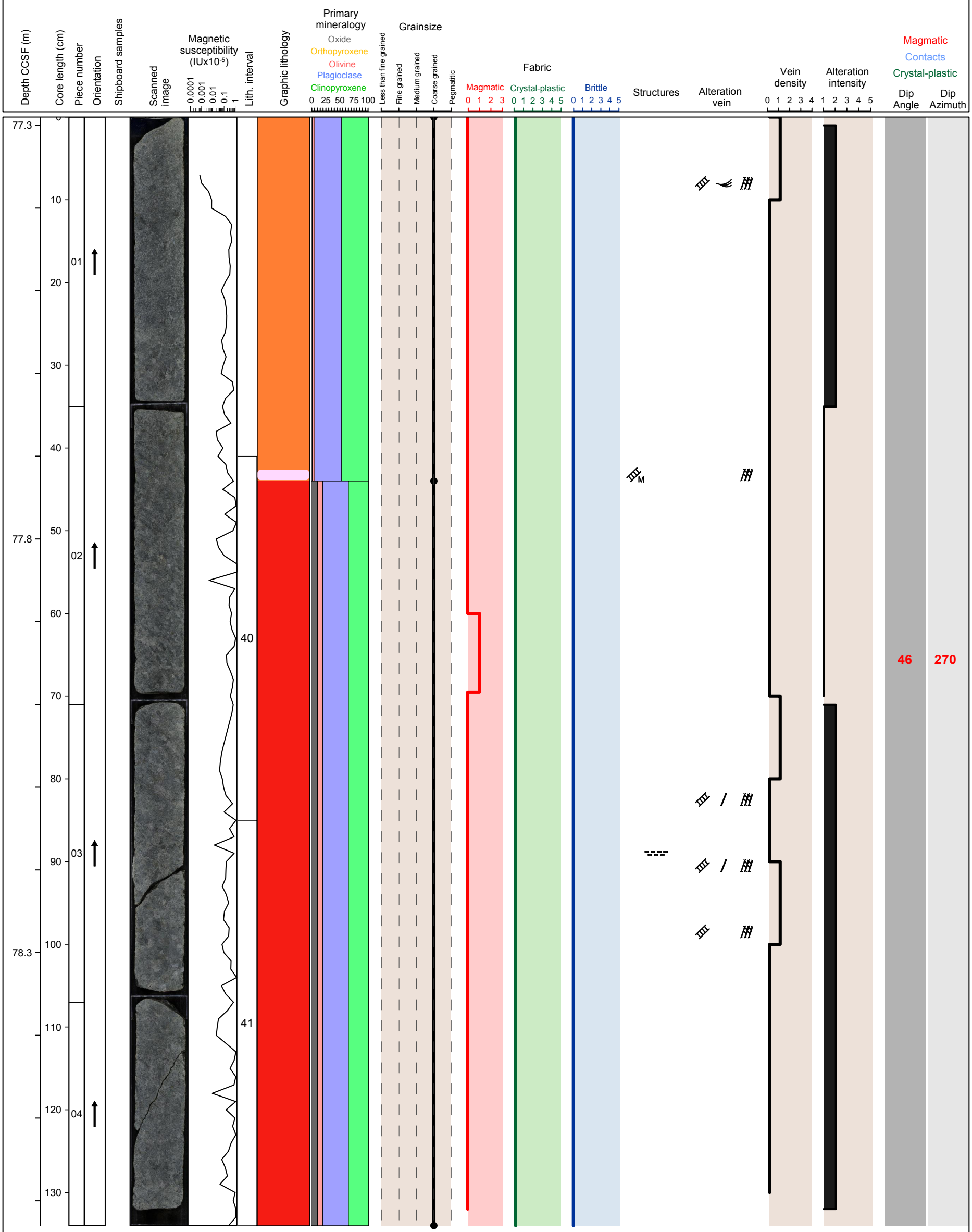


Hole 360-1105A-13R Section 2, Top of Section: 77.29 m (CCSF-179-1105-A-20151216)

Igneous Petrology: Coarse grained subophitic oxide & olivine-bearing gabbro (interval 40) and coarse graiend subophitic oxide olivine gabbro (interval 41) with one felsic vein

Metamorphic Petrology: Static background alteration intensity is slight; Alteration minerals are mainly amphibole, 2nd plagioclase and chlorite; It includes oxide gabbro layers.

Structural Geology: The magmatic vein is oxide-rich. The magmatic fabric is inclined and defined by pyroxene and plagioclase. There is a moderately plunging slickenline at 57 cm.

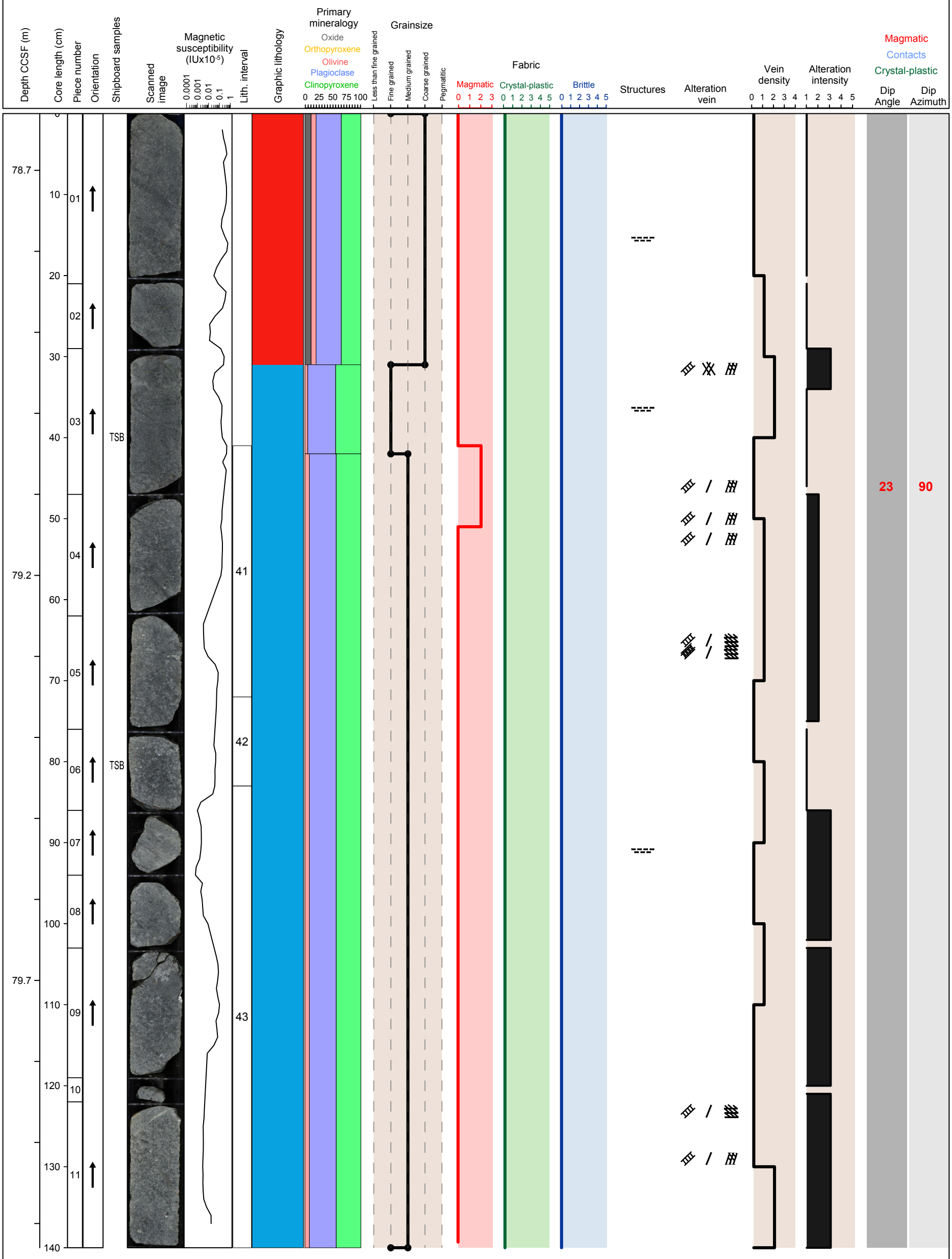


Hole 360-1105A-13R Section 3, Top of Section: 78.63 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse graiend subophitic oxide olivine gabbro (interval 41), medium grained granular olivine gabbro with a pegmatitic poikilitic olivine bearing gabbro (interval 43) and minor medium grained subophitic olivine gabbro (Interval 42)

Metamorphic Petrology: Static background alteration intensity is slight to moderate; Alteration minerals are mainly amphibole, 2nd plagioclase and chlorite.

Structural Geology: The igneous layering is defined by grain size. The magmatic fabrics are inclined and defined by pyroxene.

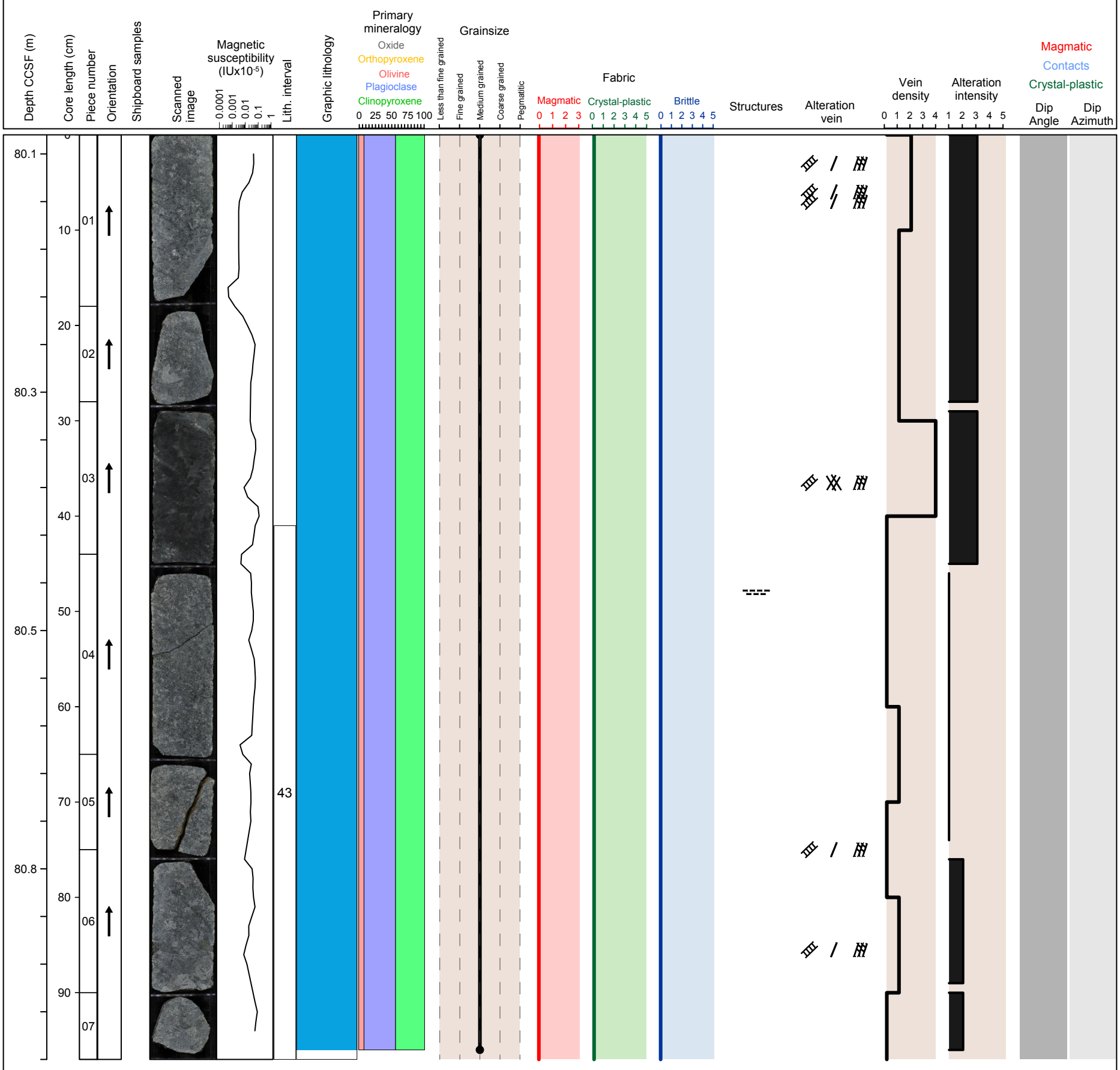


Hole 360-1105A-13R Section 4, Top of Section: 80.03 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained granular olivine gabbro with a pegmatitic poikilitic olivine bearing gabbro (interval 43)

Metamorphic Petrology: Static background alteration intensity is slight to moderate; Alteration minerals are mainly amphibole, 2nd plagioclase and chlorite.

Structural Geology: The igneous contacts are vertical.

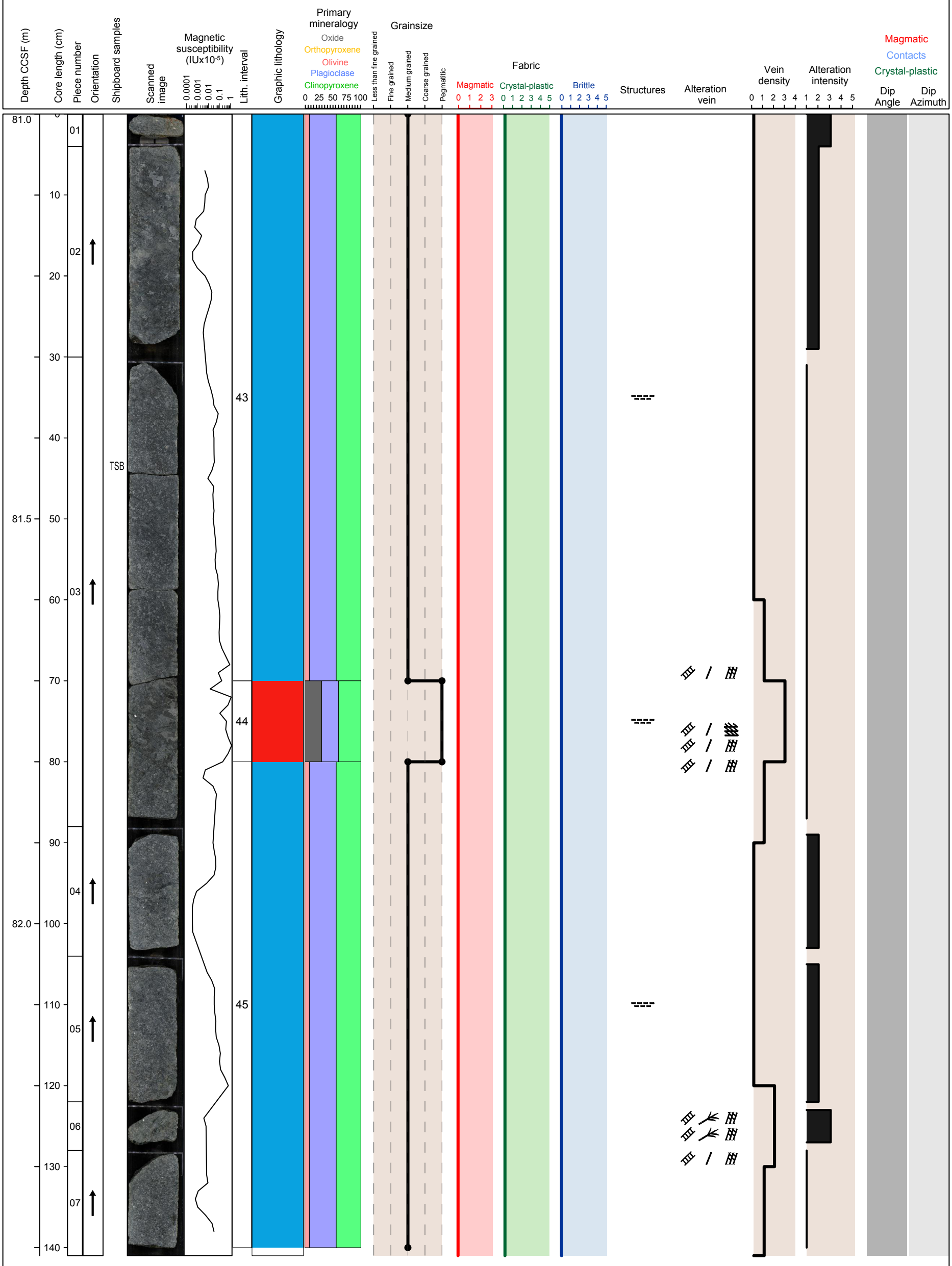


Hole 360-1105A-14R Section 1, Top of Section: 81.0 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained granular olivine gabbro with a pegmatitic poikilitic olivine bearing gabbro (interval 43), medium grained granular olivine gabbro (interval 45) and pegmatitic poikilitic oxide gabbro (interval 44)

Metamorphic Petrology: Static background alteration intensity is slight to moderate; Alteration minerals are mainly amphibole, 2nd plagioclase and chlorite.

Structural Geology: The oxide-rich gabbro is sub-vertical. There is a microvein network at 29-44 cm.

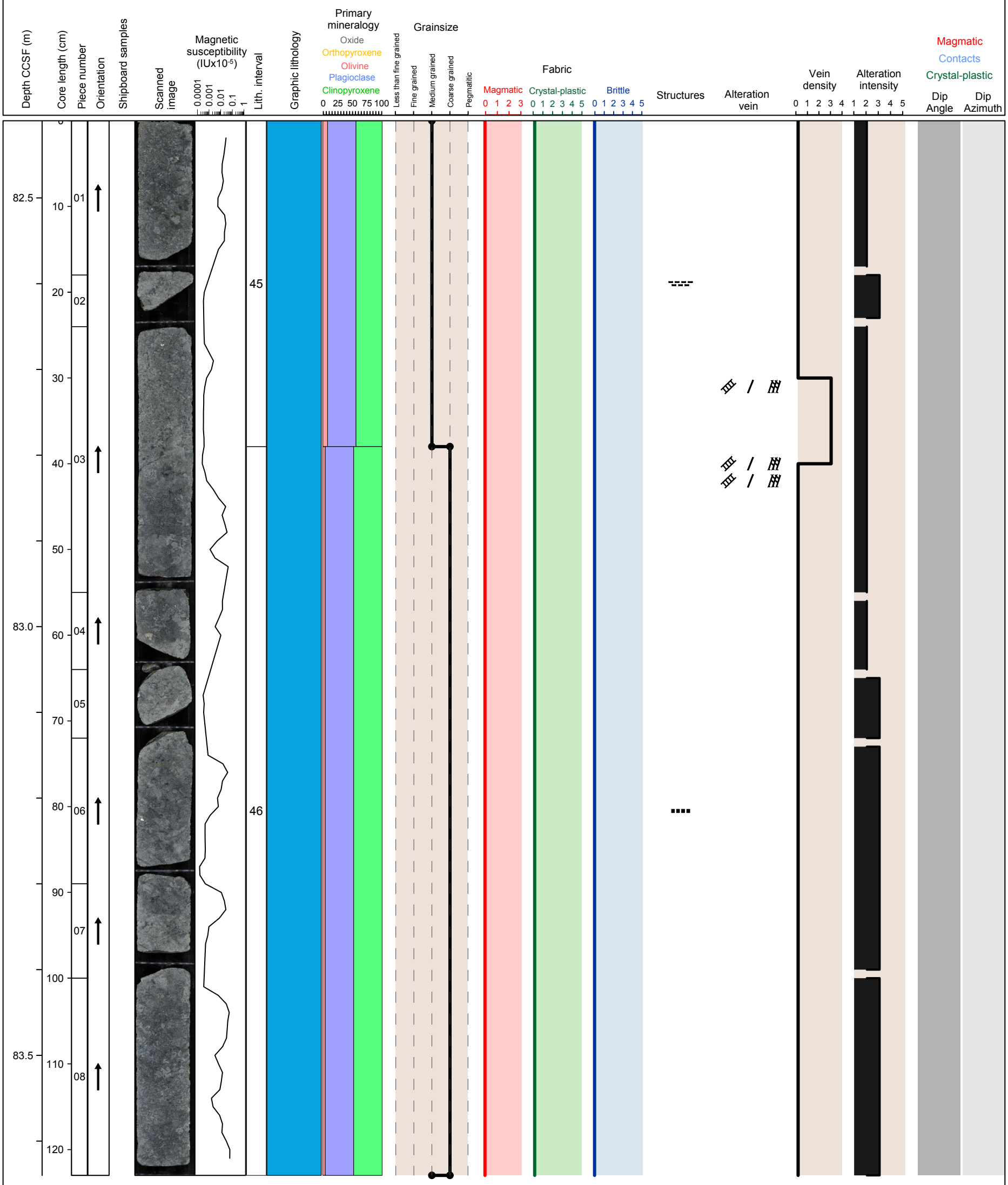


Hole 360-1105A-14R Section 2, Top of Section: 82.41 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained granular olivine gabbro (interval 45) and coarse grained ophitic olivine bearing gabbro (interval 46)

Metamorphic Petrology: Static background alteration intensity is moderate; Alteration minerals are mainly amphibole, 2nd plagioclase and chlorite.

Structural Geology: The igneous contact is sub-vertical.

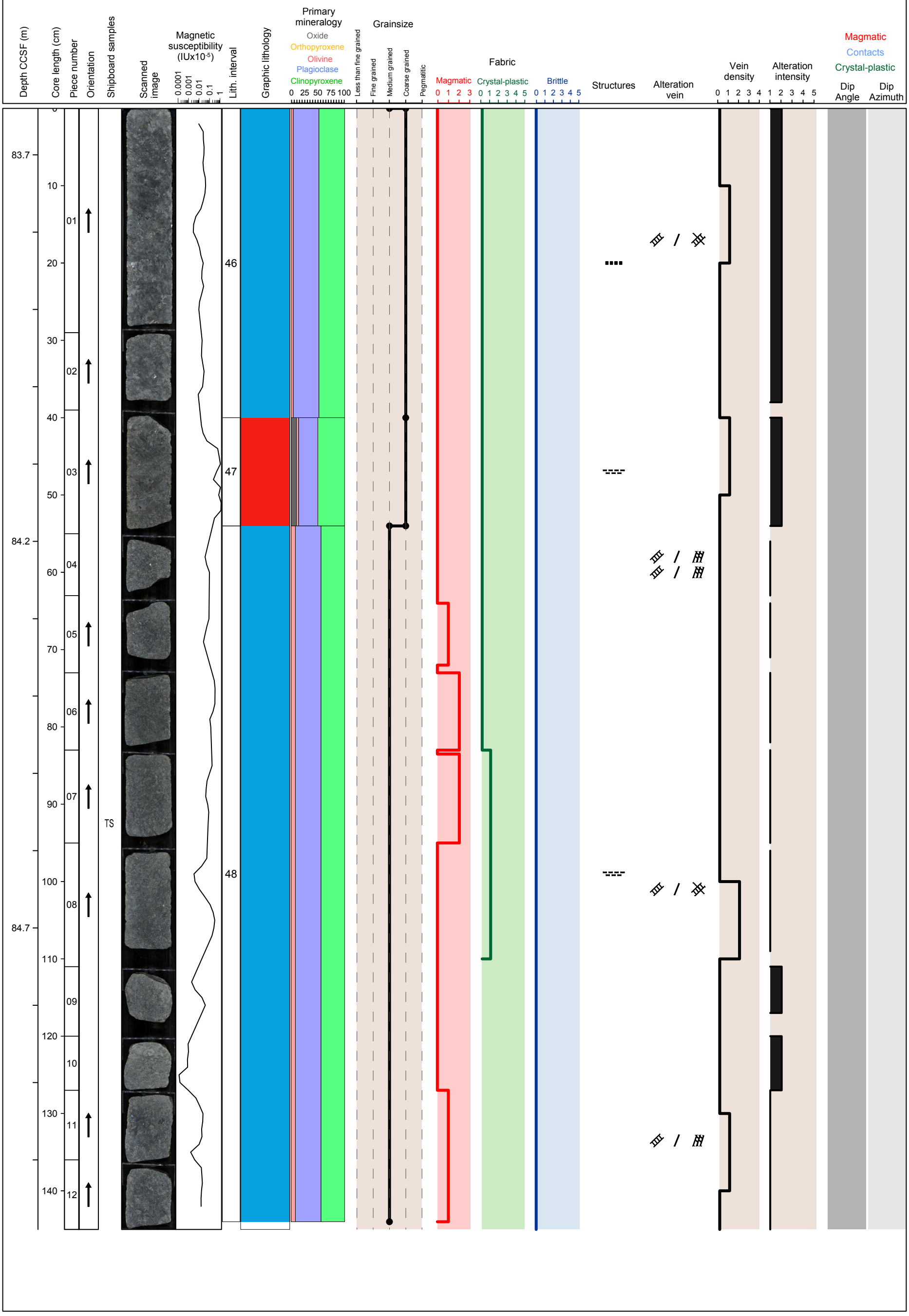


Hole 360-1105A-14R Section 3, Top of Section: 83.64 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained ophitic olivine bearing gabbro (interval 46), medium grained granular olivine gabbro (interval 48) and minor coarse grained granular olivine bearing oxide gabbro (interval 47)

Metamorphic Petrology: Static background alteration intensity is slight to moderate; Alteration minerals are mainly amphibole, 2nd plagioclase, brown clay and chlorite; It includes thin oxide gabbro layer.

Structural Geology: The oxide-rich layer is sub-horizontal. The magmatic fabrics are inclined and defined by pyroxene.

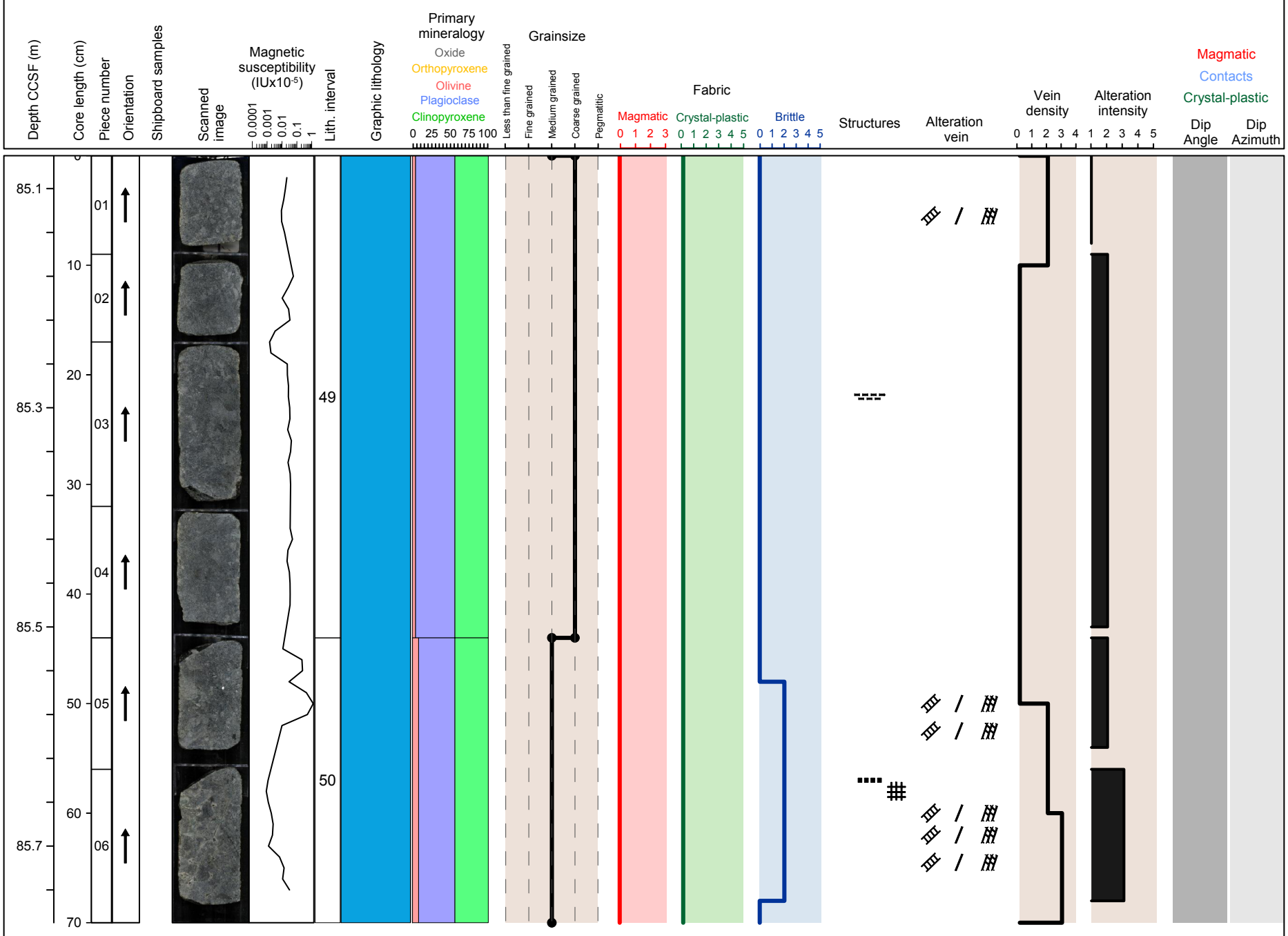


Hole 360-1105A-14R Section 4, Top of Section: 85.09 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine bearing oxide gabbro (interval 49) and medium grained granular olivine gabbro with one pegmatitic comb structured oxide gabbro domain (interval 50)

Metamorphic Petrology: Static background alteration intensity is slight to moderate; Alteration minerals are mainly amphibole, 2nd plagioclase, brown clay and chlorite; It includes some oxide.

Structural Geology: The gabbroic pegmatite is sub-vertical.

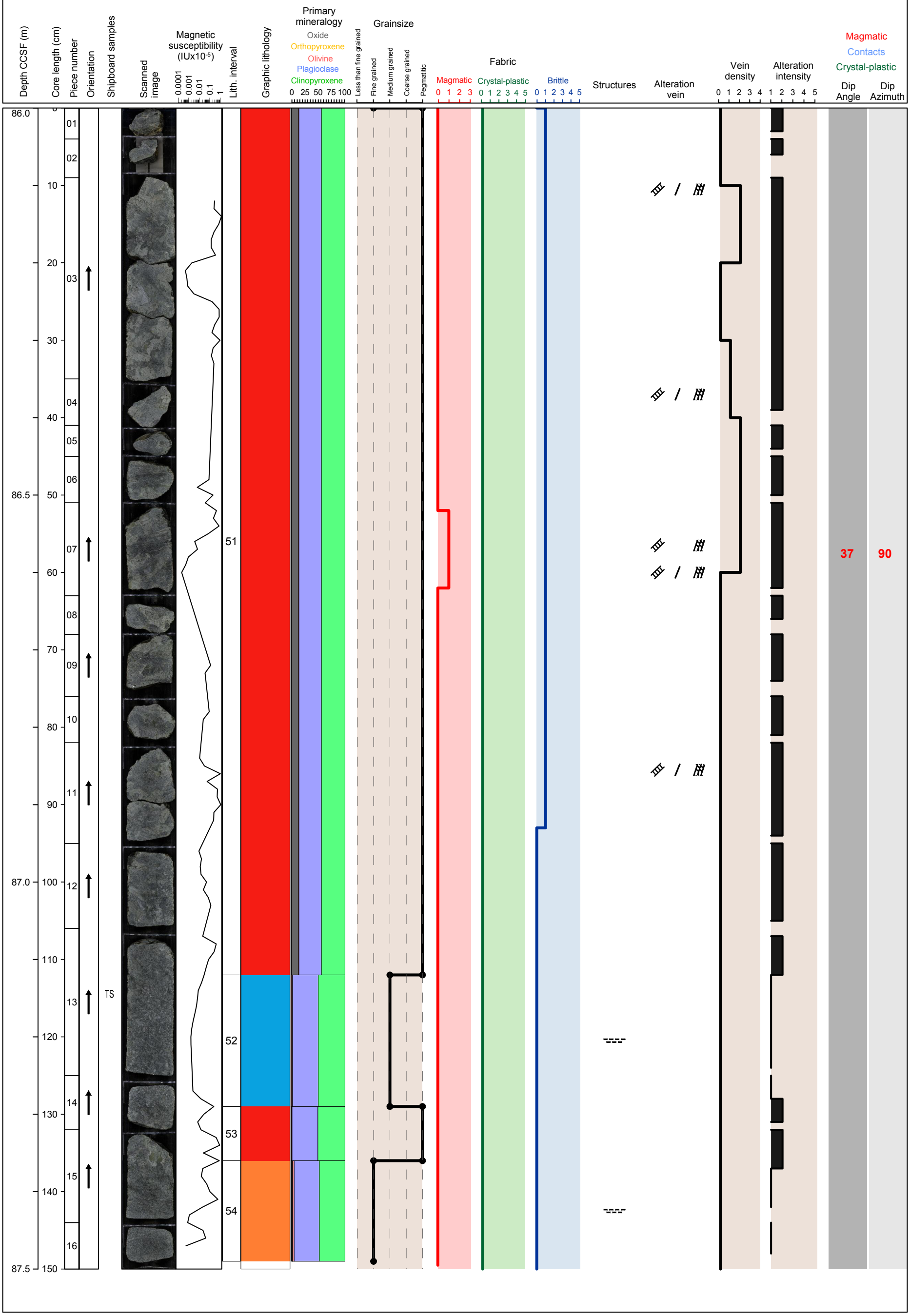


Hole 360-1105A-15R Section 1, Top of Section: 86.0 m (CCSF-179-1105-A-20151216)

Igneous Petrology: pegmatitic granular olivine bearing oxide gabbro (interval 51, 53), medium grained olivine bearing gabbro (interval 52) and fine grained granular oxide- & olivine bearing gabbro (interval 54)

Metamorphic Petrology: Static background alteration intensity is slight; Alteration minerals are mainly amphibole and chlorite; PL replace by CHL along fracture. Fine-grained gabbro is more altered than the olivine gabbro.

Structural Geology: The igneous contact is sub-vertical. The magmatic fabric is inclined and defined by pyroxene.

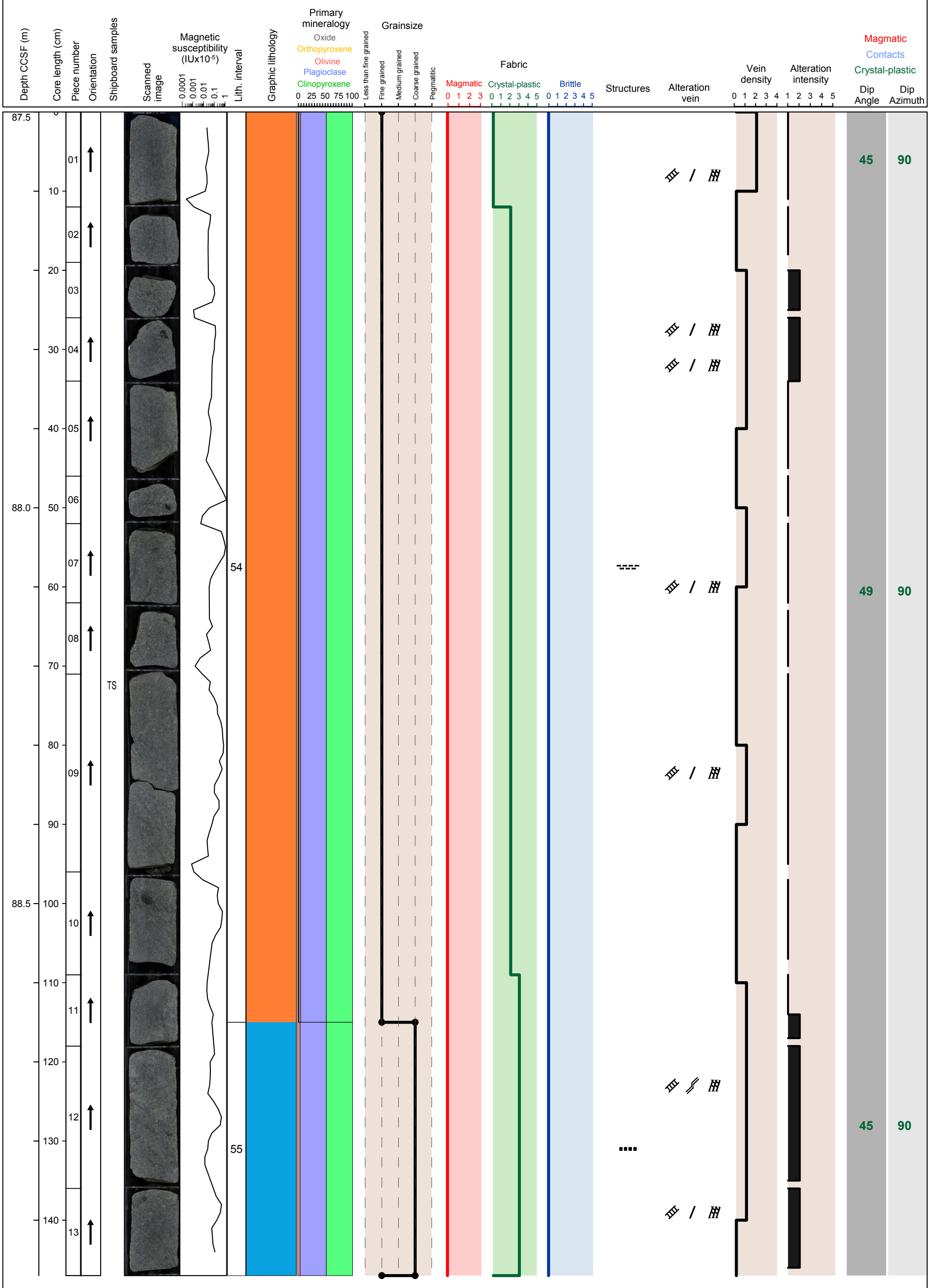


Hole 360-1105A-15R Section 2, Top of Section: 87.5 m (CCSF-179-1105-A-20151216)

Igneous Petrology: fine grained granular oxide- & olivine bearing gabbro (interval 54) and coarse grained subophitic olivine bearing gabbro (interval 55)

Metamorphic Petrology: Static background alteration intensity is slight; Alteration minerals are mainly amphibole and chlorite; Olivine altered into talc mesh.

Structural Geology:

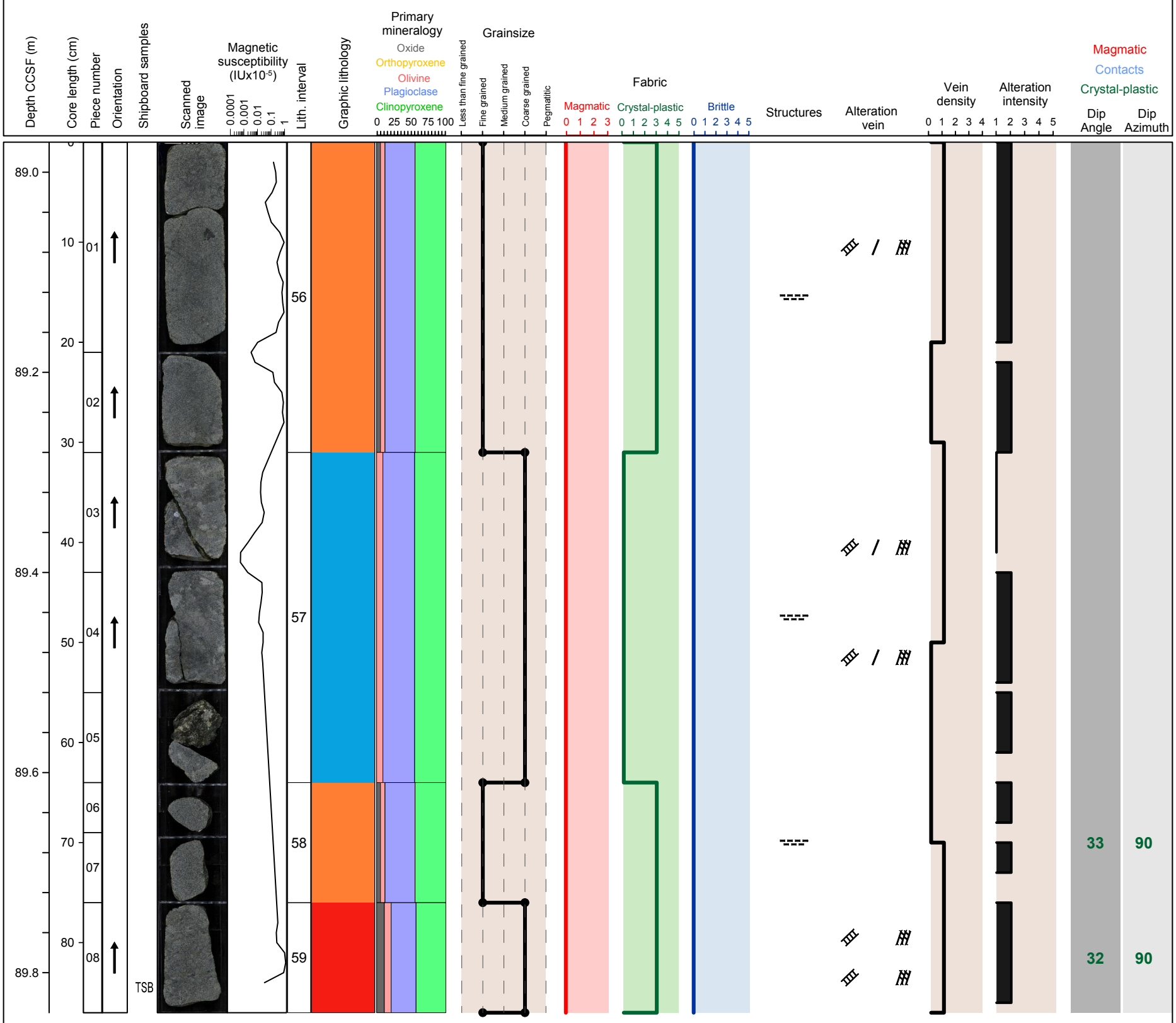


Hole 360-1105A-15R Section 3, Top of Section: 88.97 m (CCSF-179-1105-A-20151216)

Igneous Petrology: fine grained granular oxide bearing olivine gabbro (interval 56 & 58), coarse grained subophitic olivine gabbro (interval 57 & 59)

Metamorphic Petrology: Mylonitic zone has Ol, Cpx and Pl Porphyroclasts and neoblasts; Static background alteration intensity is slight; Alteration minerals are mainly amphibole and chlorite.

Structural Geology:

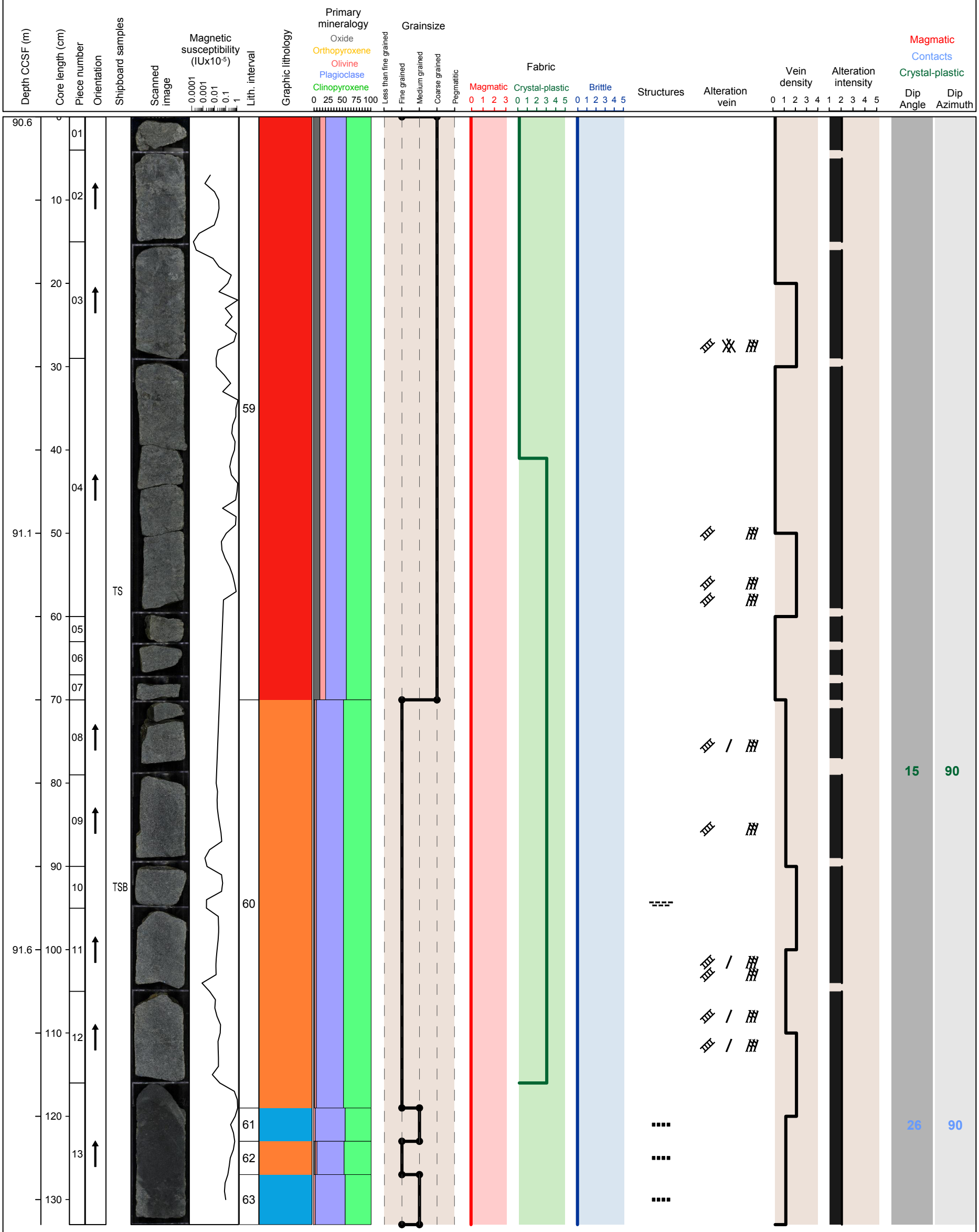


Hole 360-1105A-16R Section 1, Top of Section: 90.6 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic olivine gabbro (interval 59), fine grained granular oxide- and olivine bearing gabbro (interval 60 & 62) and medium grained subophitic olivine bearing gabbro (interval 61 & 63)

Metamorphic Petrology: Static background alteration intensity is moderate; Alteration minerals are mainly amphibole and chlorite; Partially deformed to a weak mylonitic texture.

Structural Geology: The igneous contacts are sheared. The crystal plastic fabric has a moderate dip and defined by pyroxene porphyroclasts.

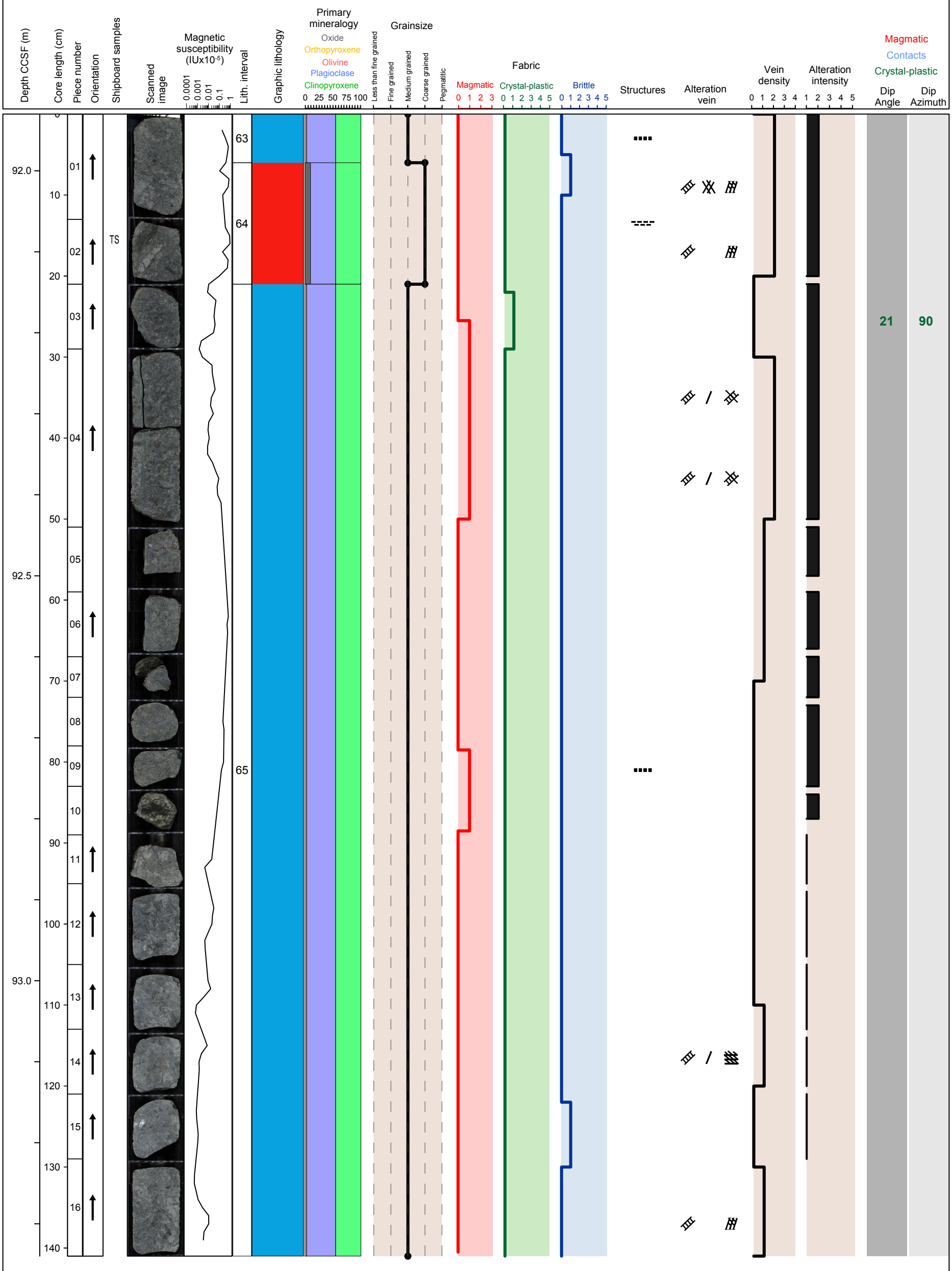


Hole 360-1105A-16R Section 2, Top of Section: 91.93 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained subophitic olivine bearing gabbro (interval 63 & 65) and coarse grained granular oxide gabbro (interval 64)

Metamorphic Petrology: Static background alteration intensity is slight; Alteration minerals are mainly amphibole and chlorite;

Structural Geology: The igneous contacts are sub-horizontal. The magmatic fabrics are defined by pyroxene.

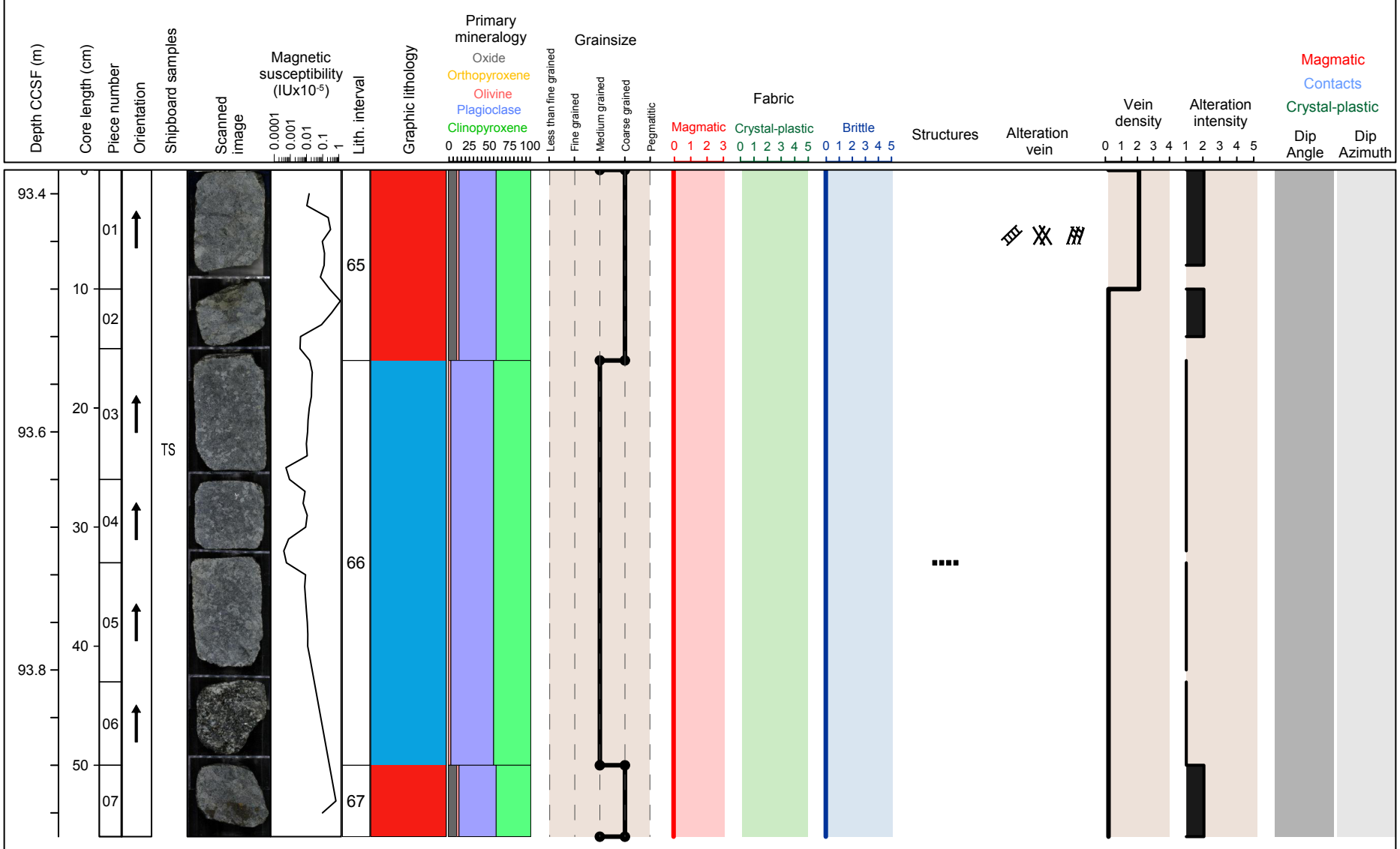


Hole 360-1105A-16R Section 3, Top of Section: 93.34 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine bearing oxide gabbro (interval 65 & 67) and medium grained subophitic olivine bearing gabbro (interval 66)

Metamorphic Petrology: Static background alteration intensity is slight; Alteration minerals are mainly amphibole and chlorite; Presence of a vug, surrounded by sulfides (likely chalcopyrite). It is composed of a platy mineral with a single yellow crystal.

Structural Geology: The igneous contact is sheared and steeply dipping. There is a microvein network at 8-10 cm.

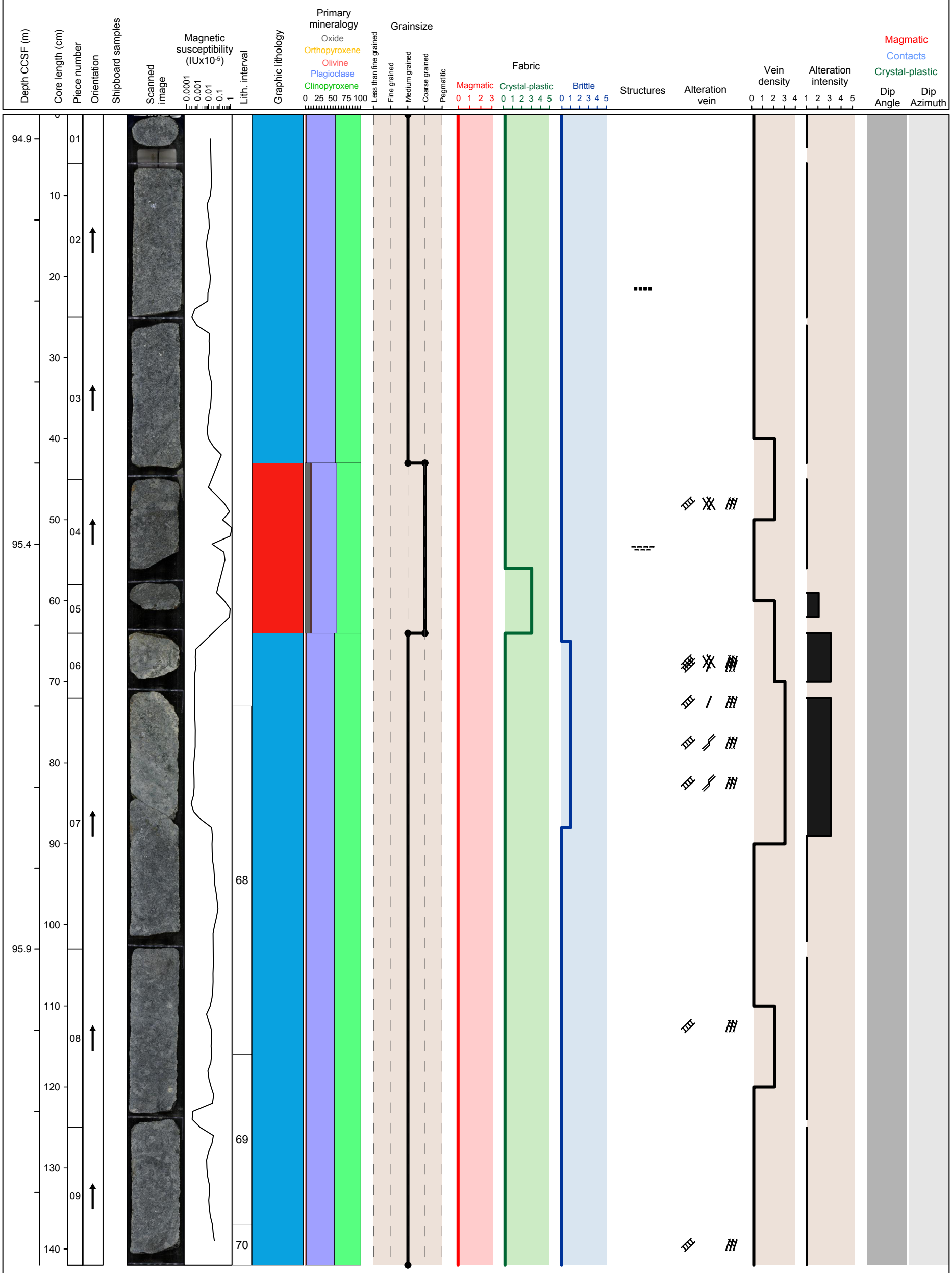


Hole 360-1105A-17R Section 1, Top of Section: 94.87 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained subophitic olivine bearing gabbro (interval 68), coarse grained granular olivine bearing oxide gabbro (interval 69) and medium grained subophitic olivine bearing gabbro with pegmatitic poikilitic olivine bearing gabbro domain (interval 70)

Metamorphic Petrology: Static background alteration intensity is slight; Alteration minerals are mainly amphibole and chlorite; Possibly with amphibole halo.

Structural Geology: The layering is based on grain size variations. The crystal plastic foliations formed across the contact and an oxide-rich vein. There is a microvein network at 5-6 cm.

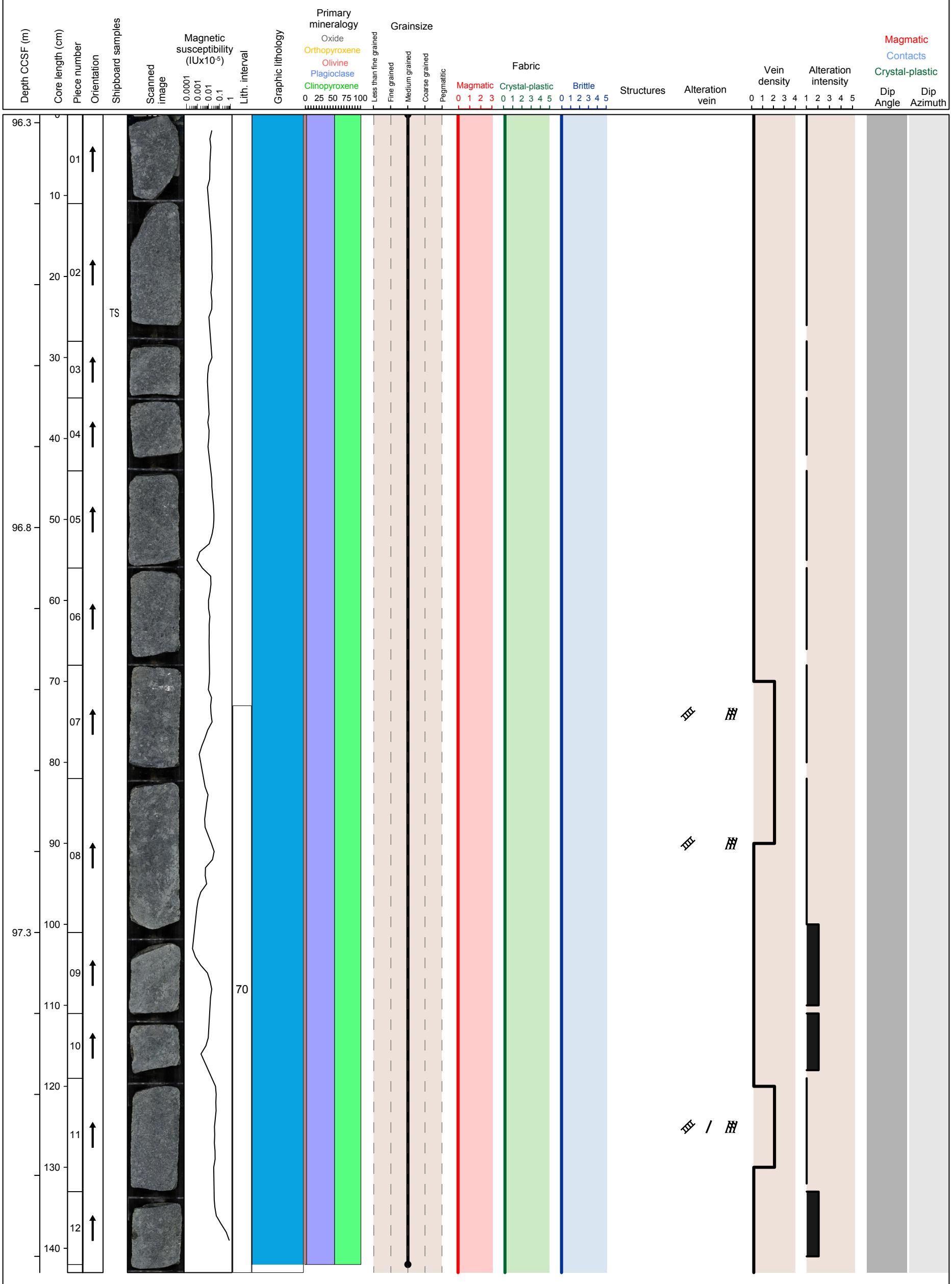


Hole 360-1105A-17R Section 2, Top of Section: 96.29 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained subophitic olivine bearing gabbro with pegmatitic poikilitic olivine bearing gabbro domain (interval 70)

Metamorphic Petrology: Static background alteration intensity is slight; Alteration minerals are mainly amphibole and chlorite;

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene and locally by olivine. There is a microvein network at 47-49 cm.

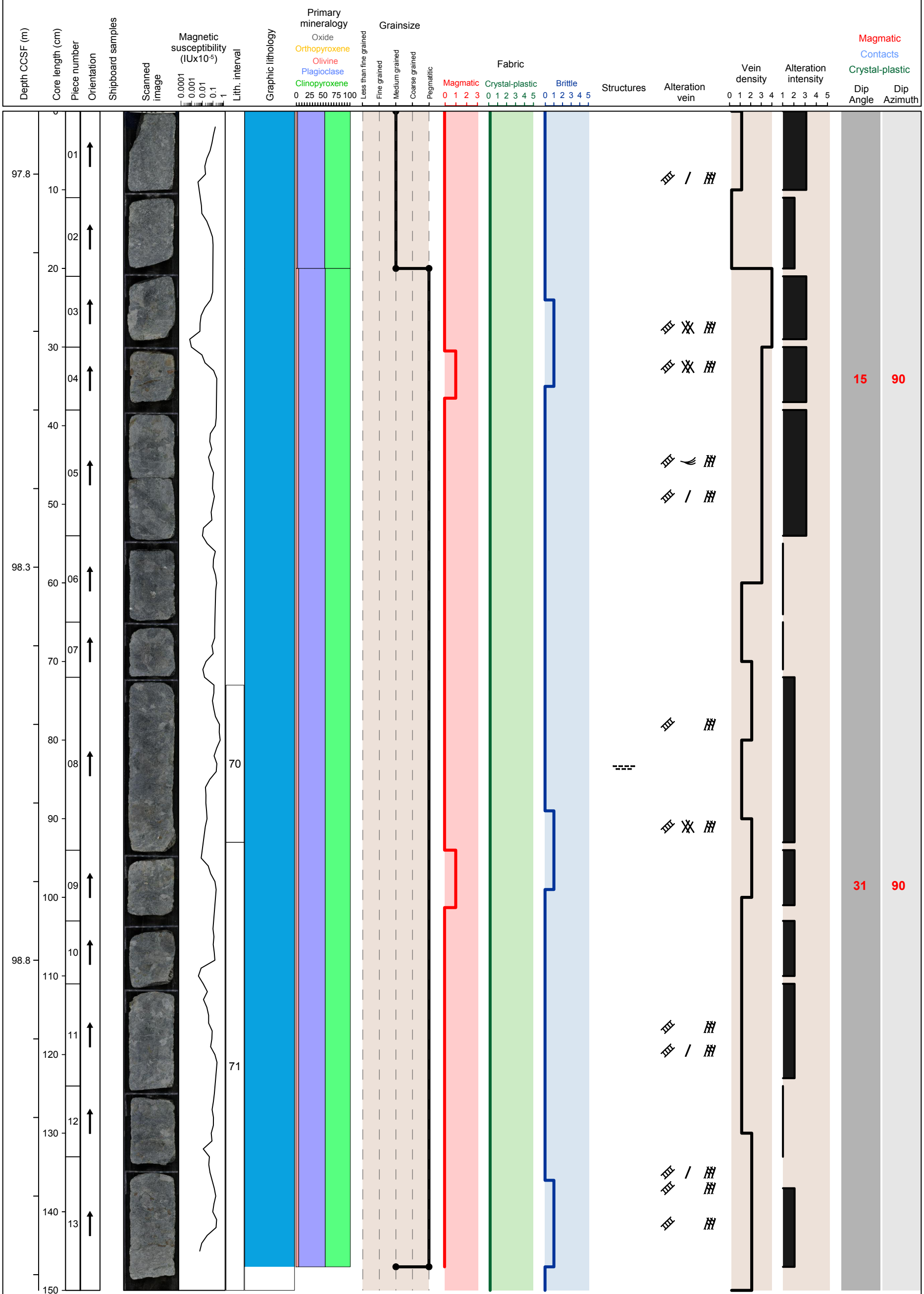


Hole 360-1105A-17R Section 3, Top of Section: 97.72 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained subophitic olivine bearing gabbro with pegmatitic poikilitic olivine bearing gabbro domain (interval 70) and pegmatitic subophitic olivine gabbro (interval 71)

Metamorphic Petrology: Static background alteration intensity is moderate; Alteration minerals are mainly amphibole, 2nd plagioclase and chlorite;Amphibole corona around olivine.

Structural Geology:

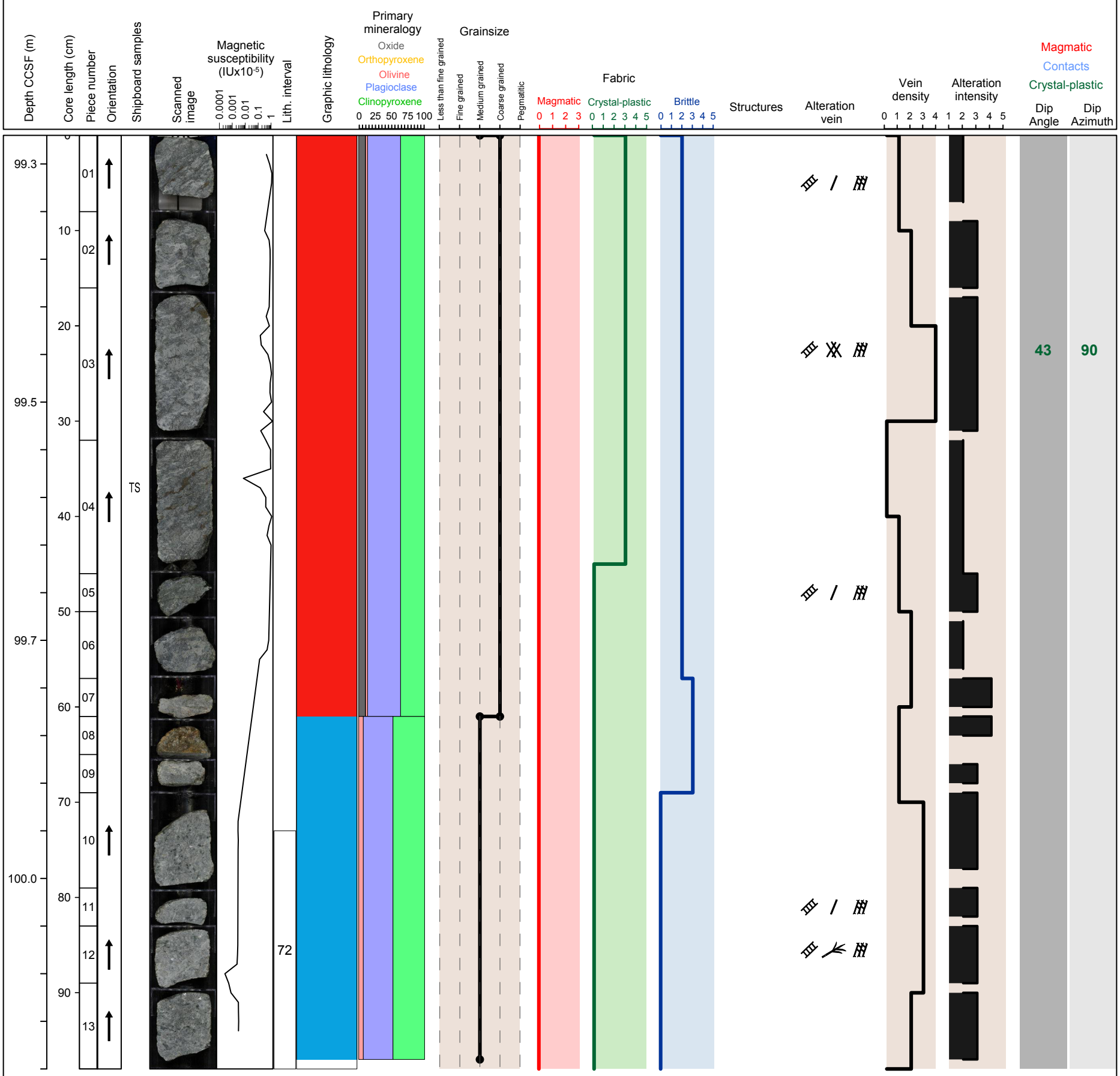


Hole 360-1105A-17R Section 4, Top of Section: 99.22 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine bearing oxide gabbro (interval 72) and medium grained subophitic olivine gabbro (interval 73)

Metamorphic Petrology: Mylonitic zone has Ol, Cpx and Pl Porphyroclasts and neoblasts; Static background alteration intensity is moderate to substantial; Alteration minerals are mainly amphibole, 2nd plagioclase and chlorite.

Structural Geology: The igneous contacts are sub-horizontal. The magmatic fabrics are defined by pyroxene.

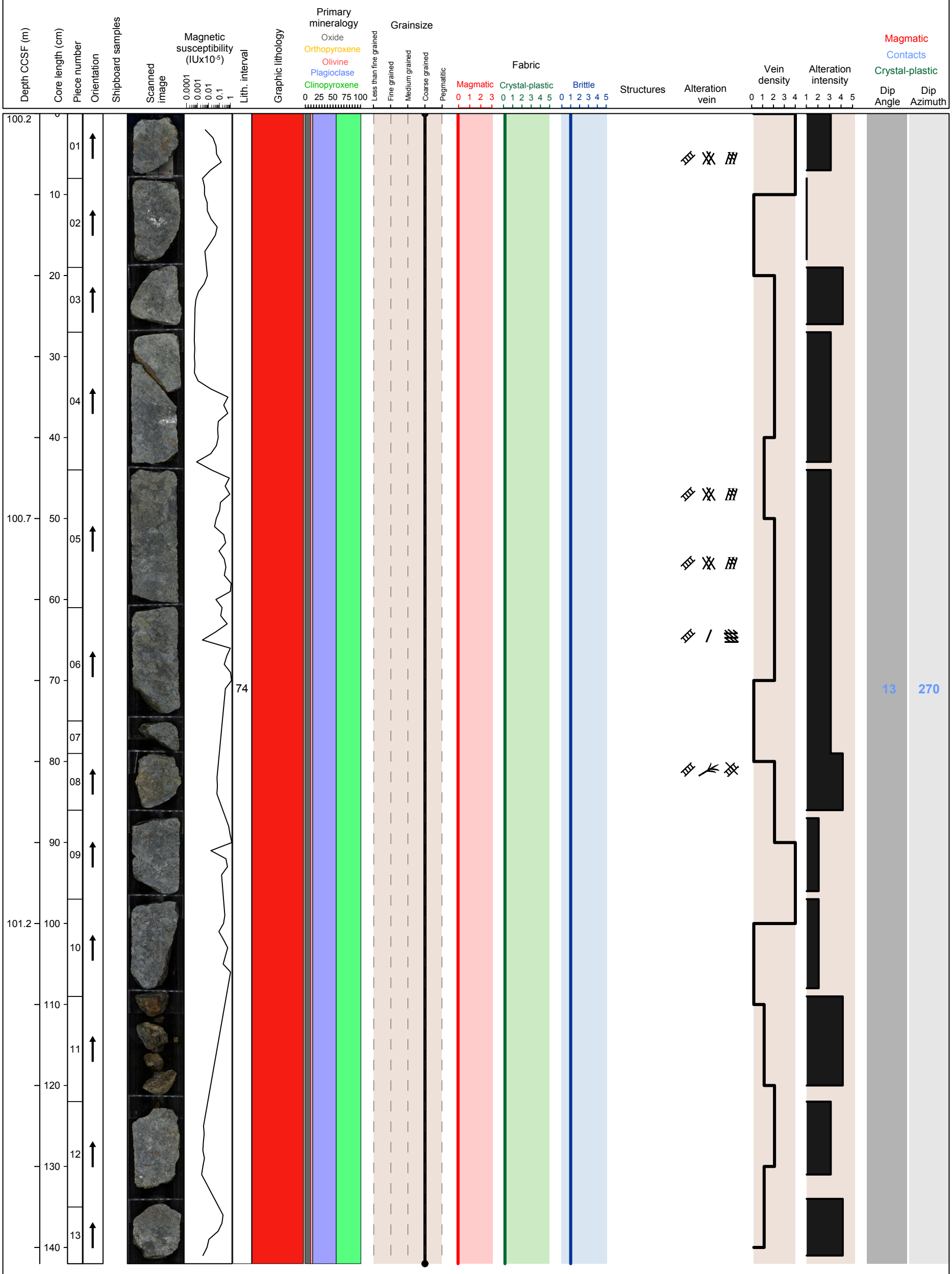


Hole 360-1105A-18R Section 1, Top of Section: 100.2 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained ophitic olivine bearing oxide gabbro (interval 74)

Metamorphic Petrology: Mylonitic zone has Cpx and Pl Porphyroclasts and neoblasts; Static background alteration intensity is moderate to substantial; Alteration minerals are mainly amphibole, 2nd plagioclase, brown clay and chlorite.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene.

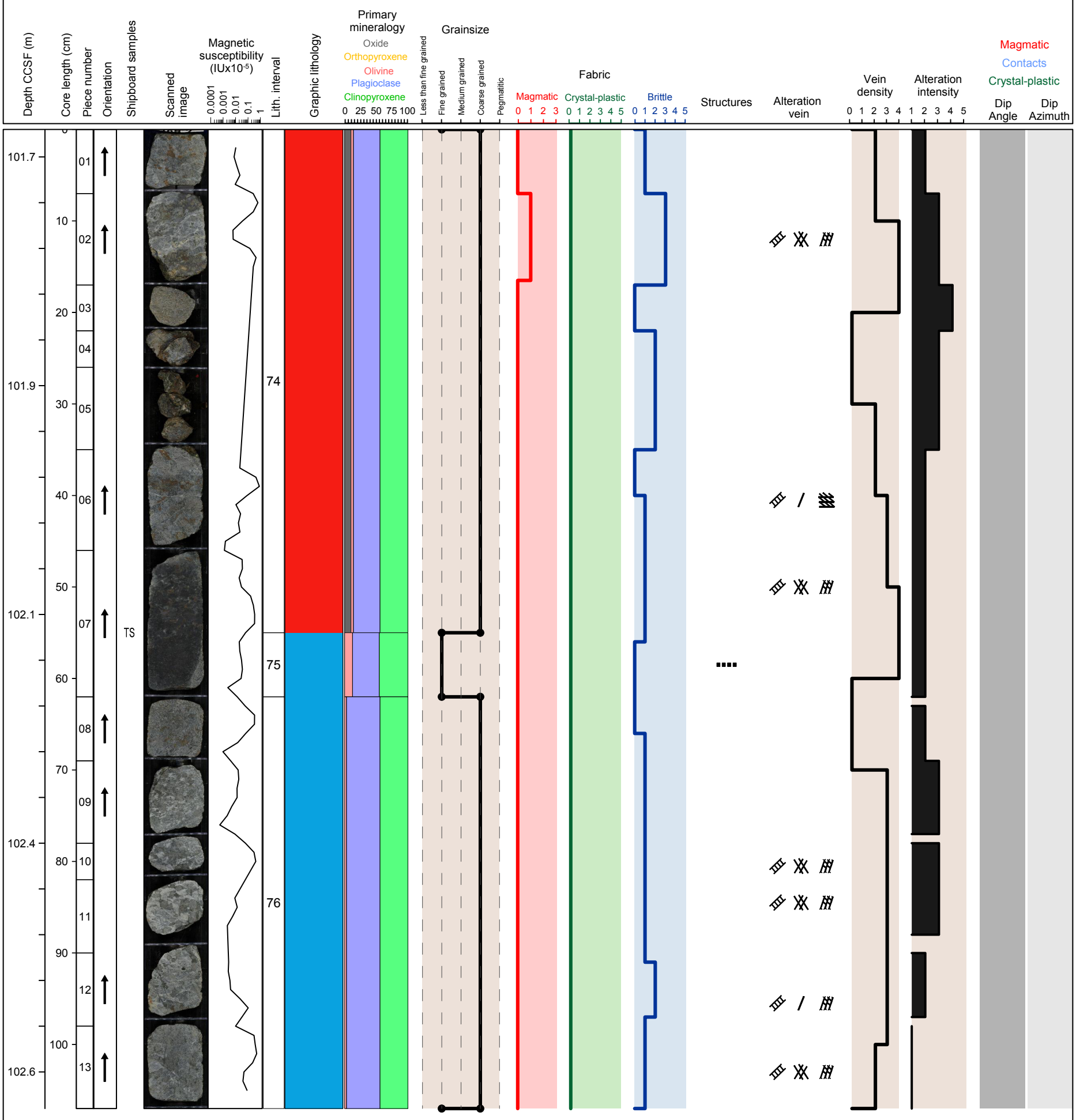


Hole 360-1105A-18R Section 2, Top of Section: 101.62 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained ophitic olivine bearing oxide gabbro (interval 74), coarse grained subophitic olivine bearing gabbro (interval 76) and minor fine grained granular olivine gabbro (interval 75)

Metamorphic Petrology: Mylonitic zone has Cpx and Pl Porphyroclasts and neoblasts; Static background alteration intensity is moderate to substantial; Alteration minerals are mainly amphibole, 2nd plagioclase, brown clay and chlorite; AMP veins and AMP coronas along the PY and PL contacts.

Structural Geology: There is sub-horizontal modal layering. The magmatic fabrics are sub-horizontal and defined by pyroxene. The shear zone is moderately dipping.

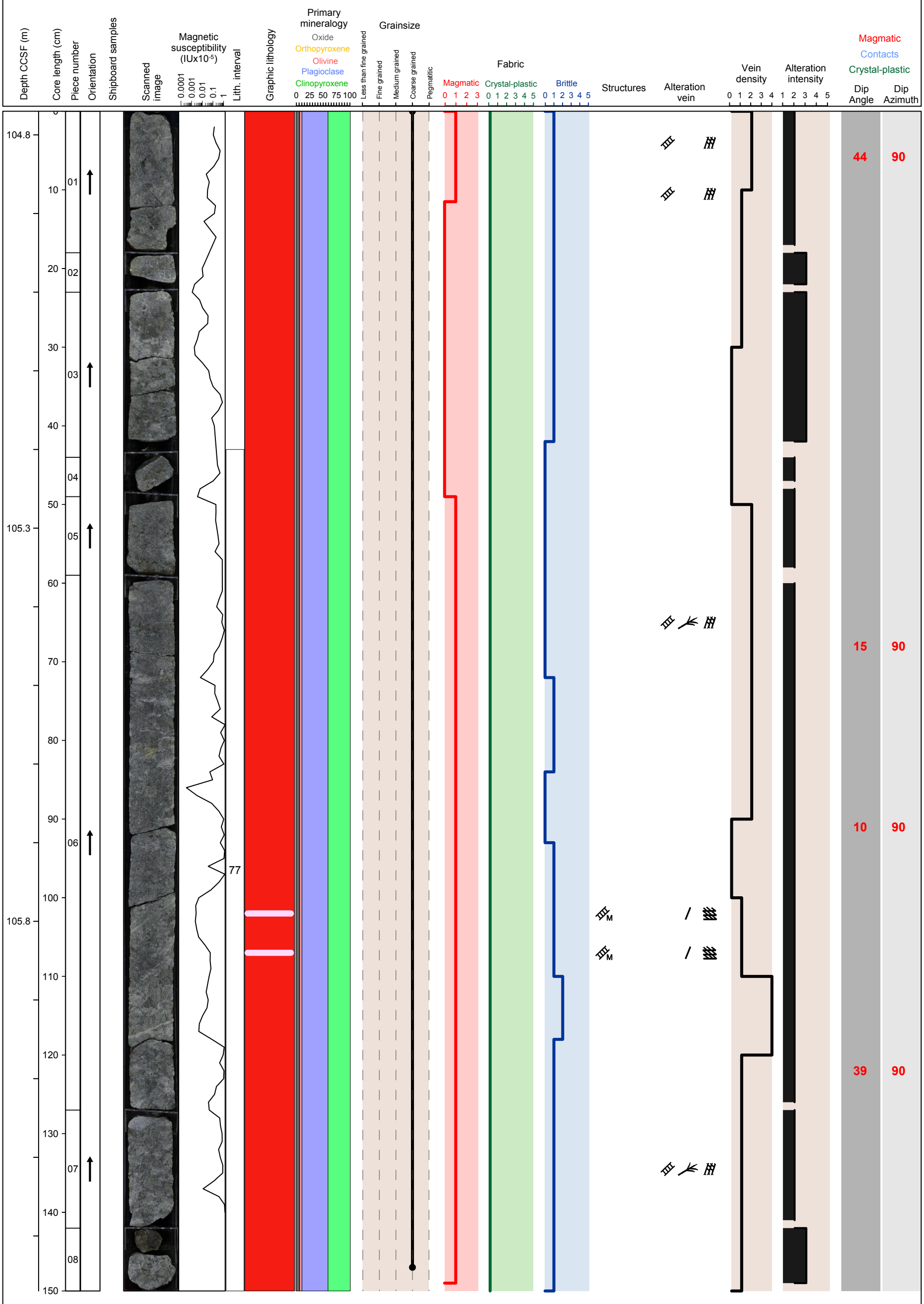


Hole 360-1105A-19R Section 1, Top of Section: 104.77 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine bearing oxide gabbro (interval 77) with one felsic vein

Metamorphic Petrology: Static background alteration intensity is moderate; Alteration minerals are mainly amphibole, 2nd plagioclase and chlorite;

Structural Geology: The igneous contact is sharp defined by fine grained gabbro intruding coarser grained gabbro and grain size layering which is sub-horizontal. The magmatic fabrics are inclined and defined by pyroxene and locally olivine. There are microfractures in plagioclase surrounded by an oxide-rich bands at 7-17 cm.

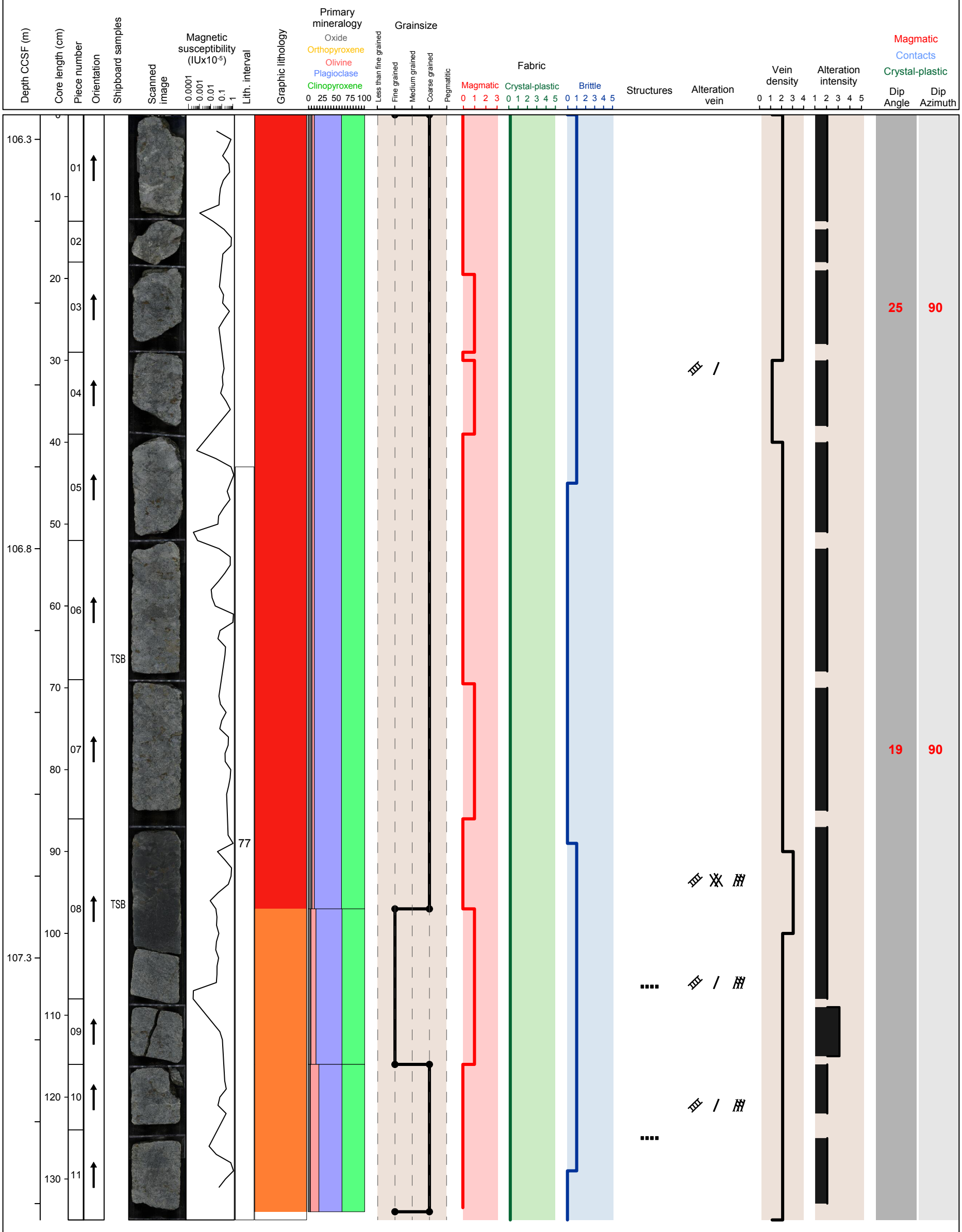


Hole 360-1105A-19R Section 2, Top of Section: 106.27 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine bearing oxide gabbro (interval 77), coarse grained granular oxide bearing olivine gabbro (interval 79) and minor fine grained granular oxide bearing olivine gabbro (interval 78)

Metamorphic Petrology: Static background alteration intensity is moderate; Alteration minerals are mainly amphibole, 2nd plagioclase, talc and chlorite;

Structural Geology: There is modal and grainsize sub-horizontal layering. The magmatic fabrics are inclined and defined by pyroxene and locally olivine. There is a slickenside with normal sense of shear at 37 cm

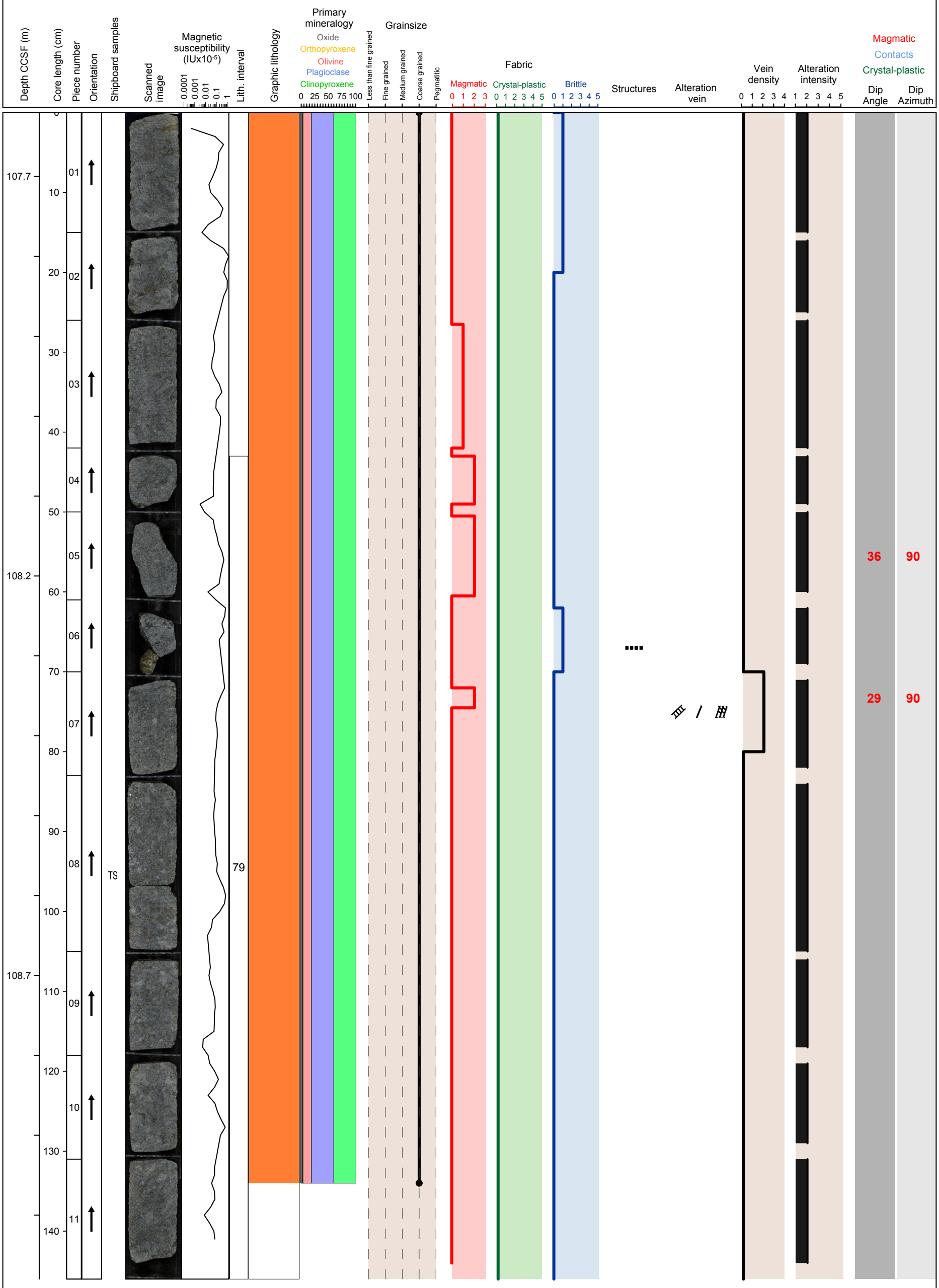


Hole 360-1105A-19R Section 3, Top of Section: 107.62 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 79)

Metamorphic Petrology: Static background alteration intensity is moderate; Alteration minerals are mainly amphibole, 2nd plagioclase, talc and chlorite;

Structural Geology: The fine grained rock is intrusive and anastomosing.

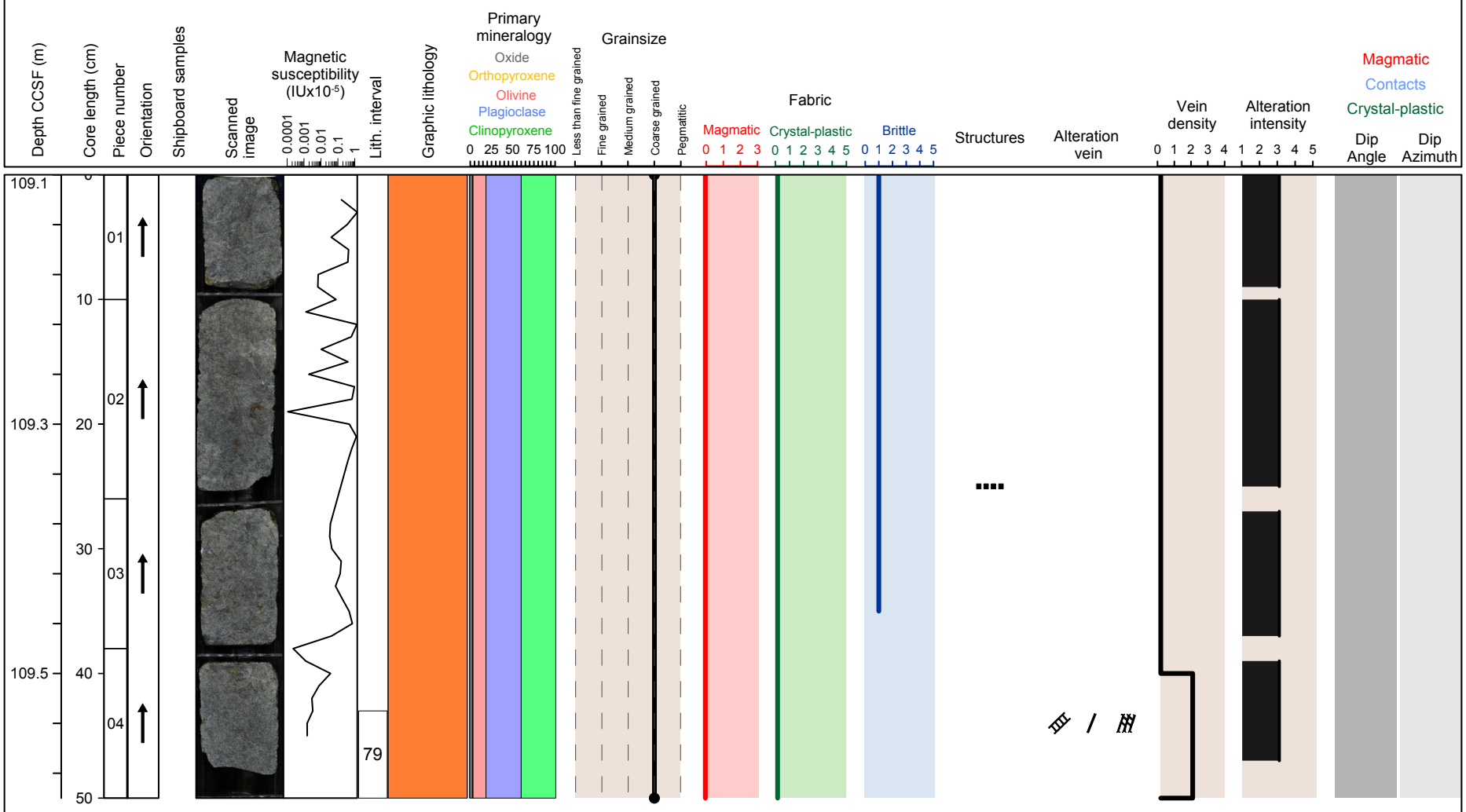


Hole 360-1105A-19R Section 4, Top of Section: 109.08 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 79)

Metamorphic Petrology: Static background alteration intensity is moderate; Alteration minerals are mainly amphibole and chlorite;

Structural Geology:

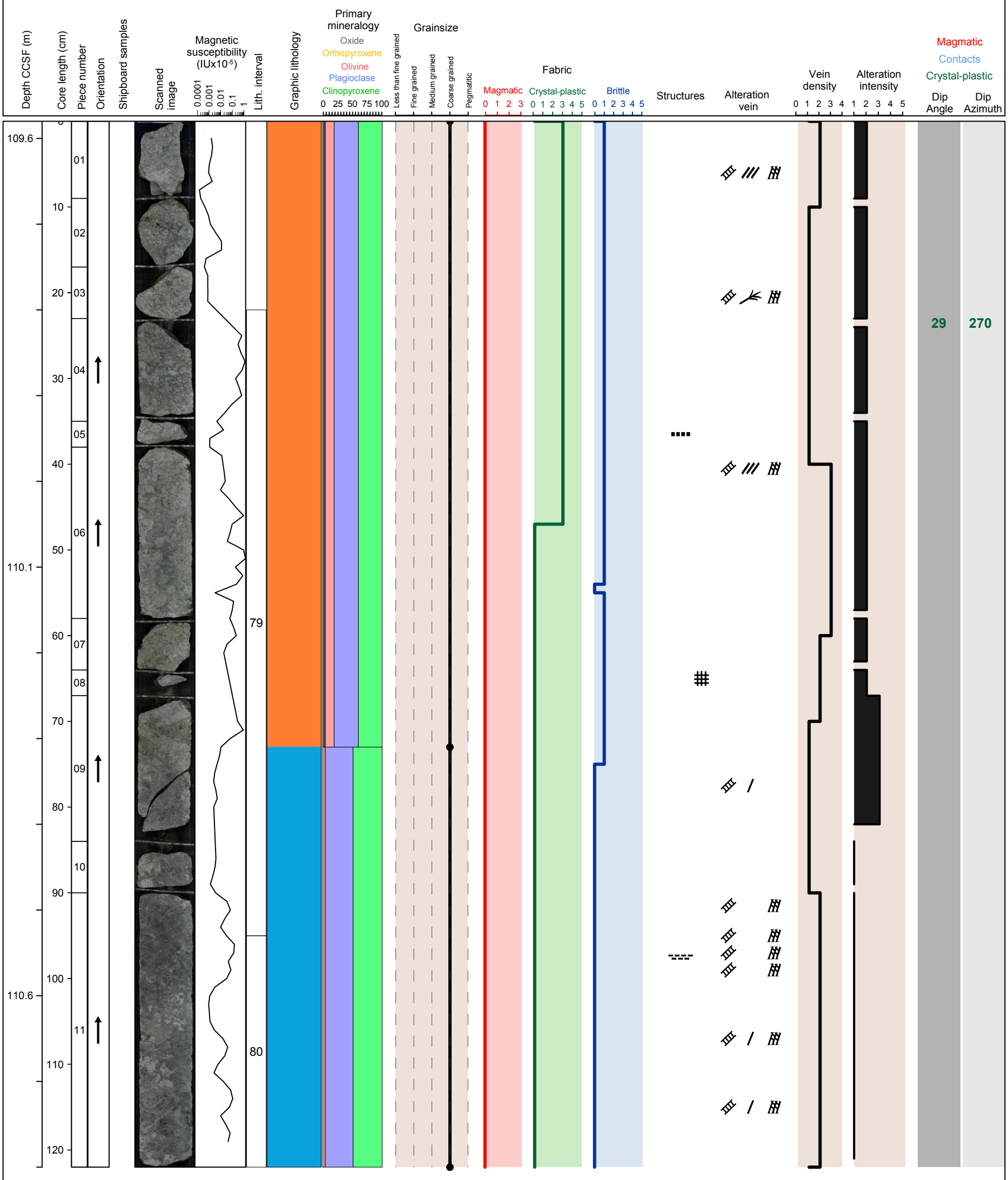


Hole 360-1105A-20R Section 1, Top of Section: 109.58 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular oxide bearing olivine gabbro (interval 79) and coarse grained poikilitic olivine bearing gabbro (interval 80)

Metamorphic Petrology: First part of the section contains highly altered olivine and the alteration of the rocks as a whole is moderate. Second part of the section contains oxides and is also moderately altered. Typical alteration of olivine is to talc and orange clay, and plagioclase is locally replaced by amphibole and chlorite. The last two pieces are fresh rocks exhibiting amphibole coronas along olivine-plagioclase contacts.

Structural Geology: The igneous contacts have moderate dips. The magmatic fabrics are inclined defined by pyroxene and locally olivine.

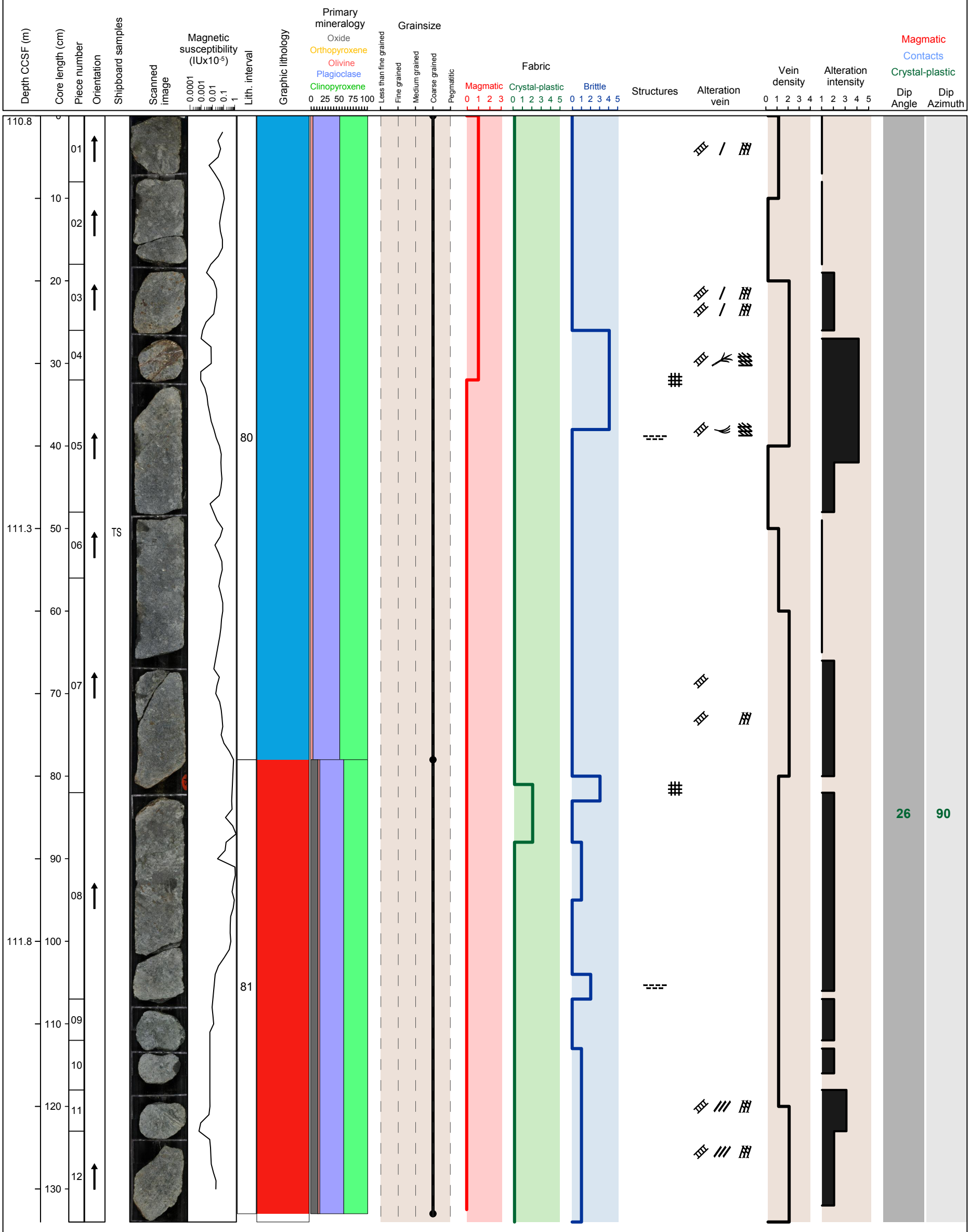


Hole 360-1105A-21R Section 1, Top of Section: 110.8 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained poikilitic olivine bearing gabbro (interval 80) and coarse grained granular olivine bearing oxide gabbro (interval 81)

Metamorphic Petrology: The section is only weakly altered with amphibole coronas observed around clinopyroxene. The rock alteration is more intense near cataclastic bands and veins.

Structural Geology: The crystal plastic fabric is moderately dipping.

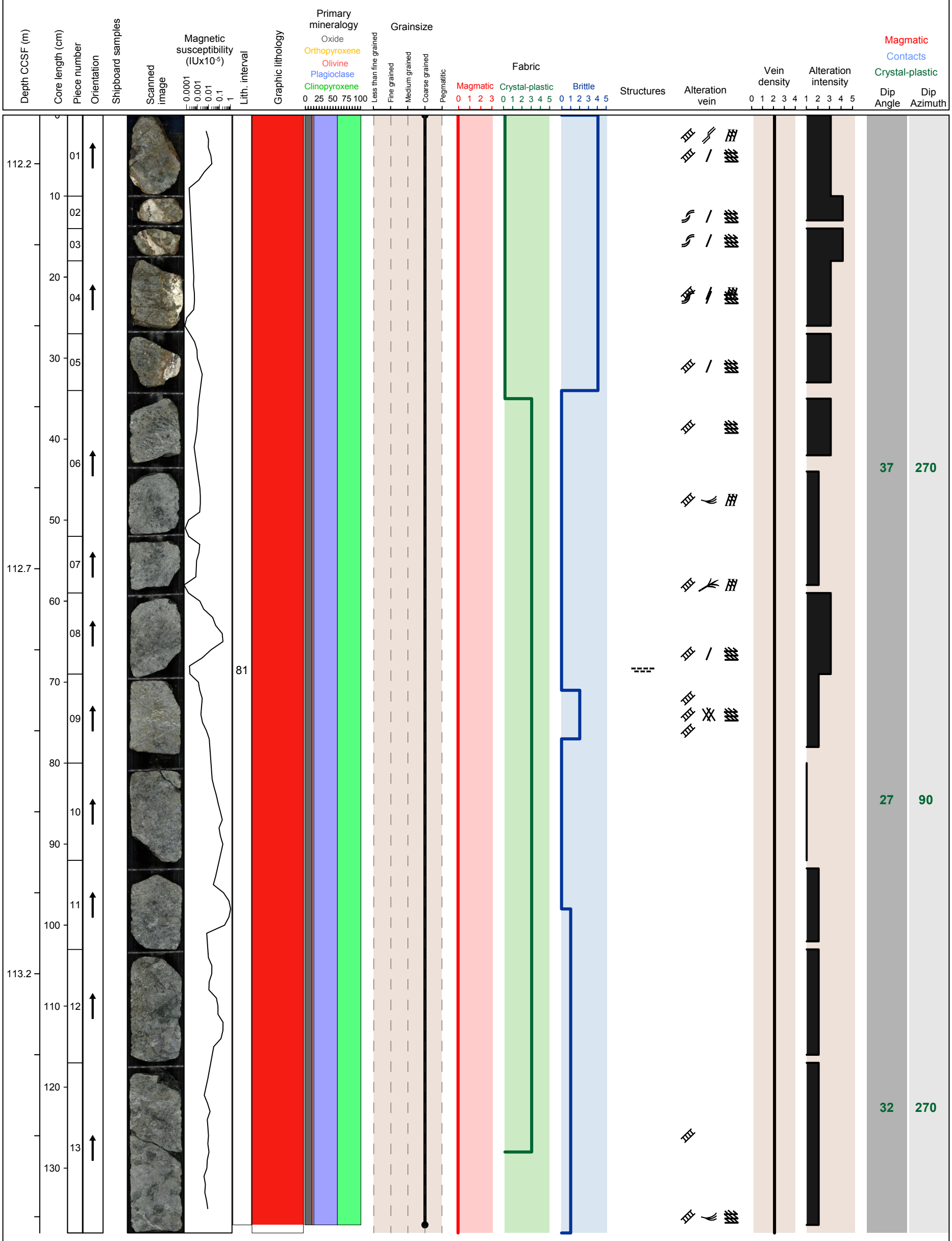


Hole 360-1105A-21R Section 2, Top of Section: 112.14 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine bearing oxide gabbro (interval 81) with one felsic vein

Metamorphic Petrology: Intensive halo alteration along felsic veins; Background alteration intensity is slight to moderate; Ateration minerals are mainly amphibole, chlorite and brownish clay.

Structural Geology: The magmatic fabric are inclined and defined by pyroxene. The crystal plastic shear zone is sub-horizontal and in contact with an altered zone. There is a highly fractured fault zone that is highly altered. There is a moderately plunging slickenline at 127 cm.

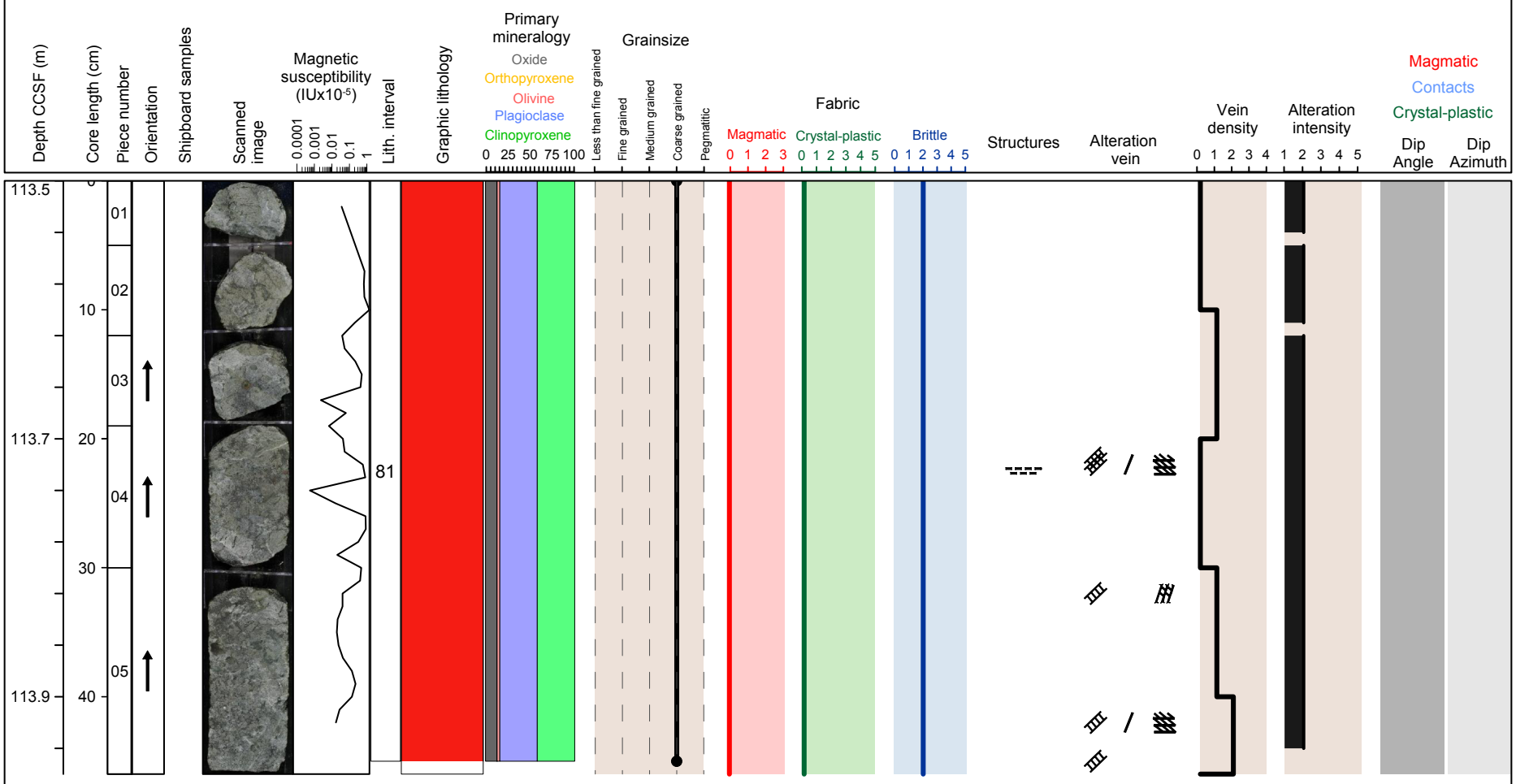


Hole 360-1105A-21R Section 3, Top of Section: 113.52 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine bearing oxide gabbro (interval 81)

Metamorphic Petrology: Static background alteration intensity is slight to moderate; Alteration minerals are mainly amphibole and chlorite.

Structural Geology: The igneous contacts are moderately dipping. The crystal plastic fabrics are moderately dipping.

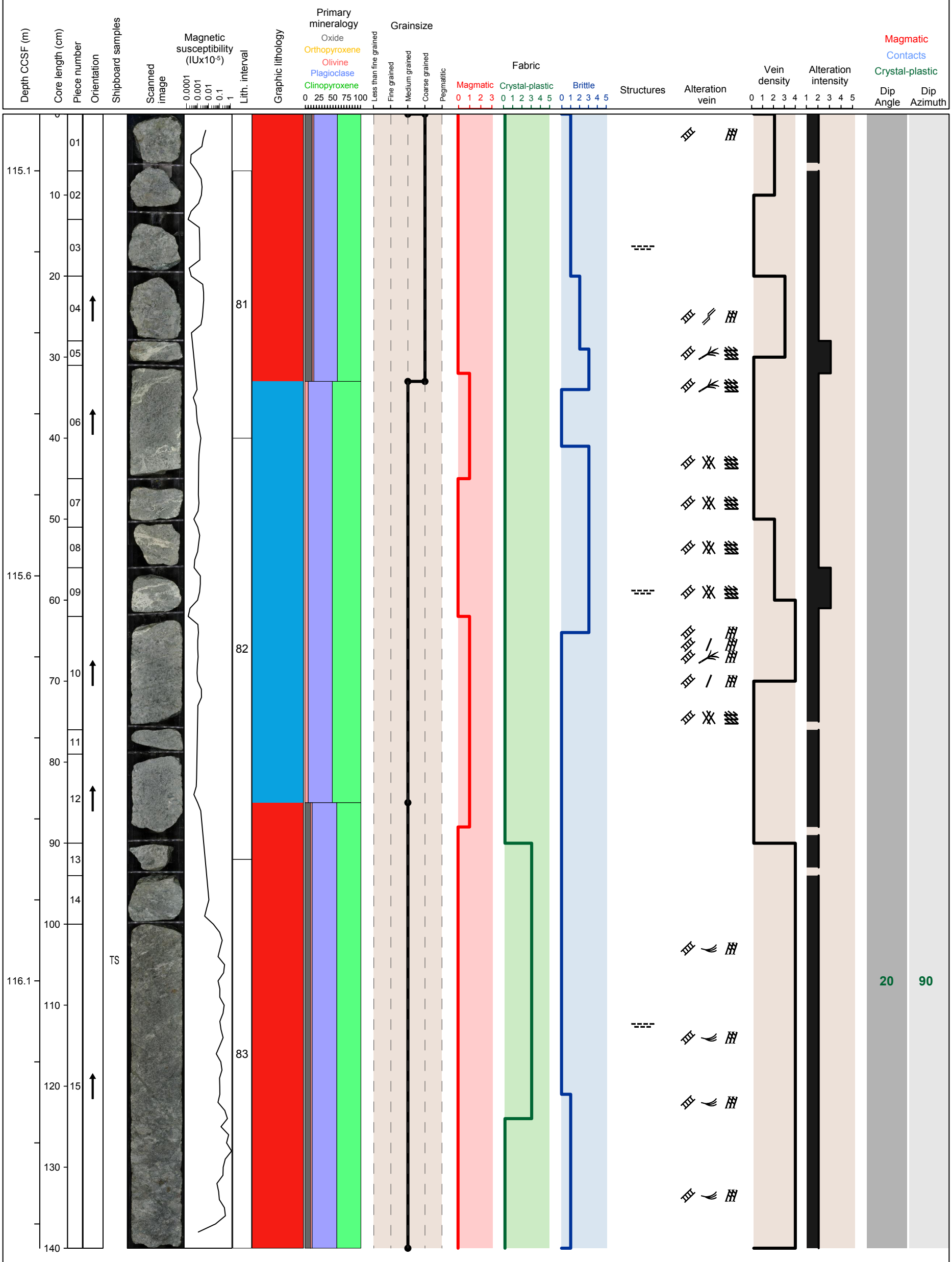


Hole 360-1105A-22R Section 1, Top of Section: 115.03 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine bearing oxide gabbro (interval 81), medium grained subophitic olivine gabbro (interval 82) and medium grained granular olivine bearing oxide gabbro with coarse grained granular olivine bearing oxide gabbro domain (interval 83)

Metamorphic Petrology: Mylonitic zone has clinopyroxene and plagioclase porphyroclasts and neoblasts; Static background alteration intensity is slight to moderate, more intense near white veins; Alteration minerals are mainly amphibole and chlorite.

Structural Geology: The igneous contact is defined by an oxide-rich band. The magmatic fabric is inclined and defined by pyroxene.

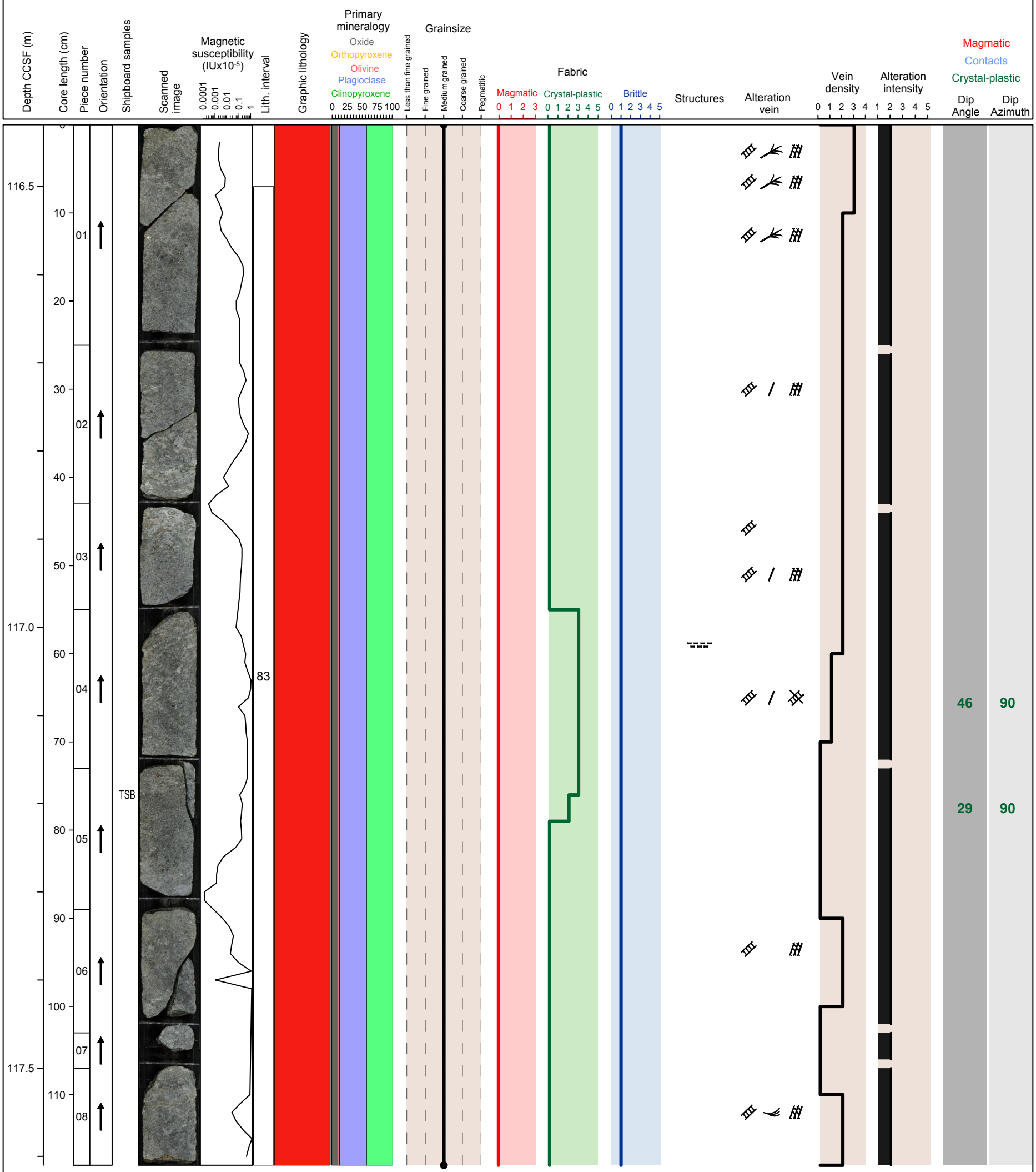


Hole 360-1105A-22R Section 2, Top of Section: 116.43 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained granular olivine bearing oxide gabbro with coarse grained granular olivine bearing oxide gabbro domain (interval 83)

Metamorphic Petrology: Static background alteration intensity is slight to moderate; Alteration minerals are mainly amphibole and chlorite.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. There is a moderately plunging slickenline at 11 cm.

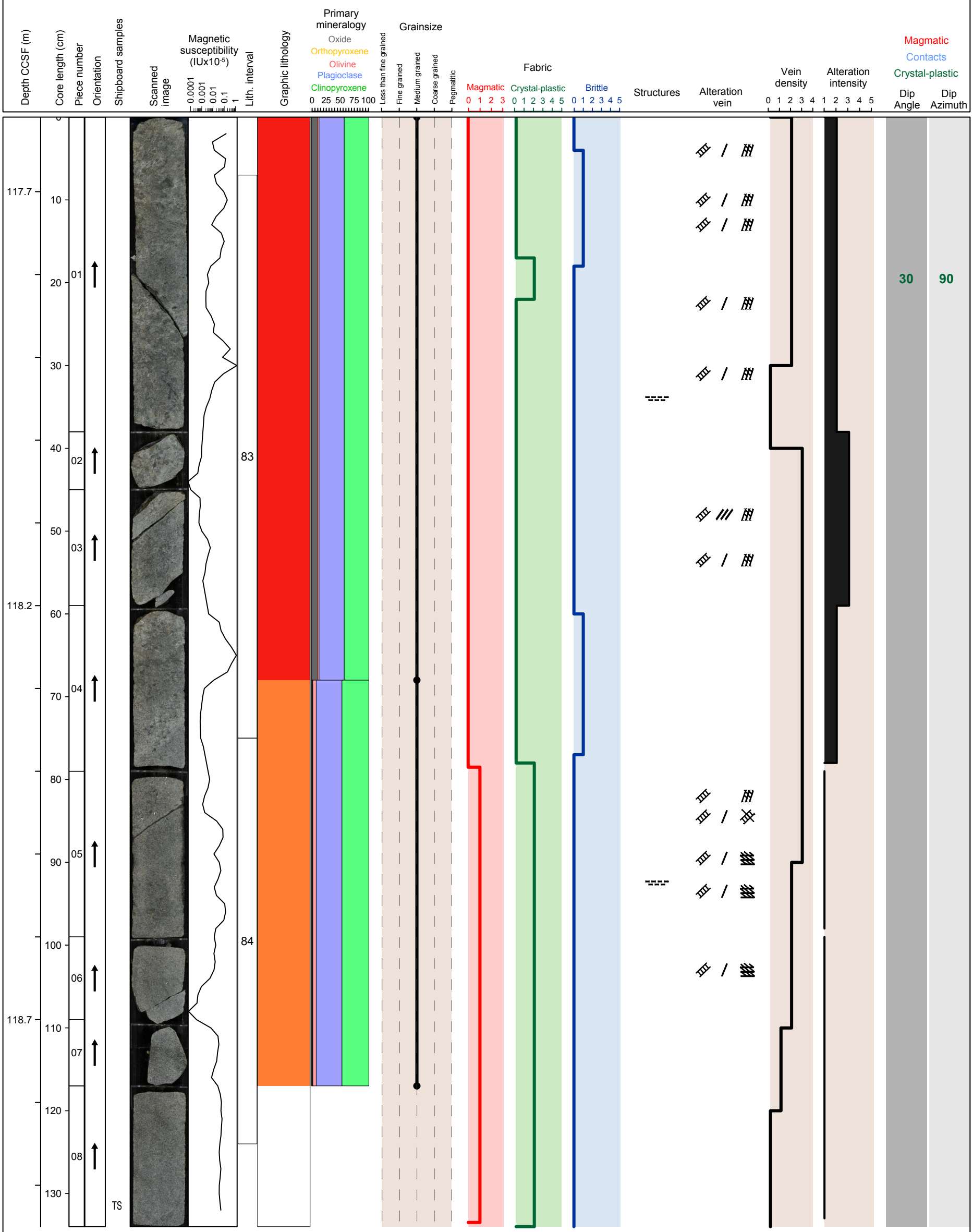


Hole 360-1105A-22R Section 3, Top of Section: 117.61 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained granular olivine bearing oxide gabbro with coarse grained granular olivine bearing oxide gabbro domain (interval 83) and medium grained subophitic oxide bearing olivine gabbro (interval 84)

Metamorphic Petrology: Static background alteration intensity is slight to moderate, more intense near the amphibole veins and fine-grained rocks are relative fresh; Alteration minerals are mainly amphibole and chlorite.

Structural Geology: The igneous contacts are moderately dipping. The magmatic fabrics are inclined defined by pyroxene. The shear zone has a sharp contact and moderately dipping. There is a moderately plunging slickenline with a normal sense of shear at 22 cm.

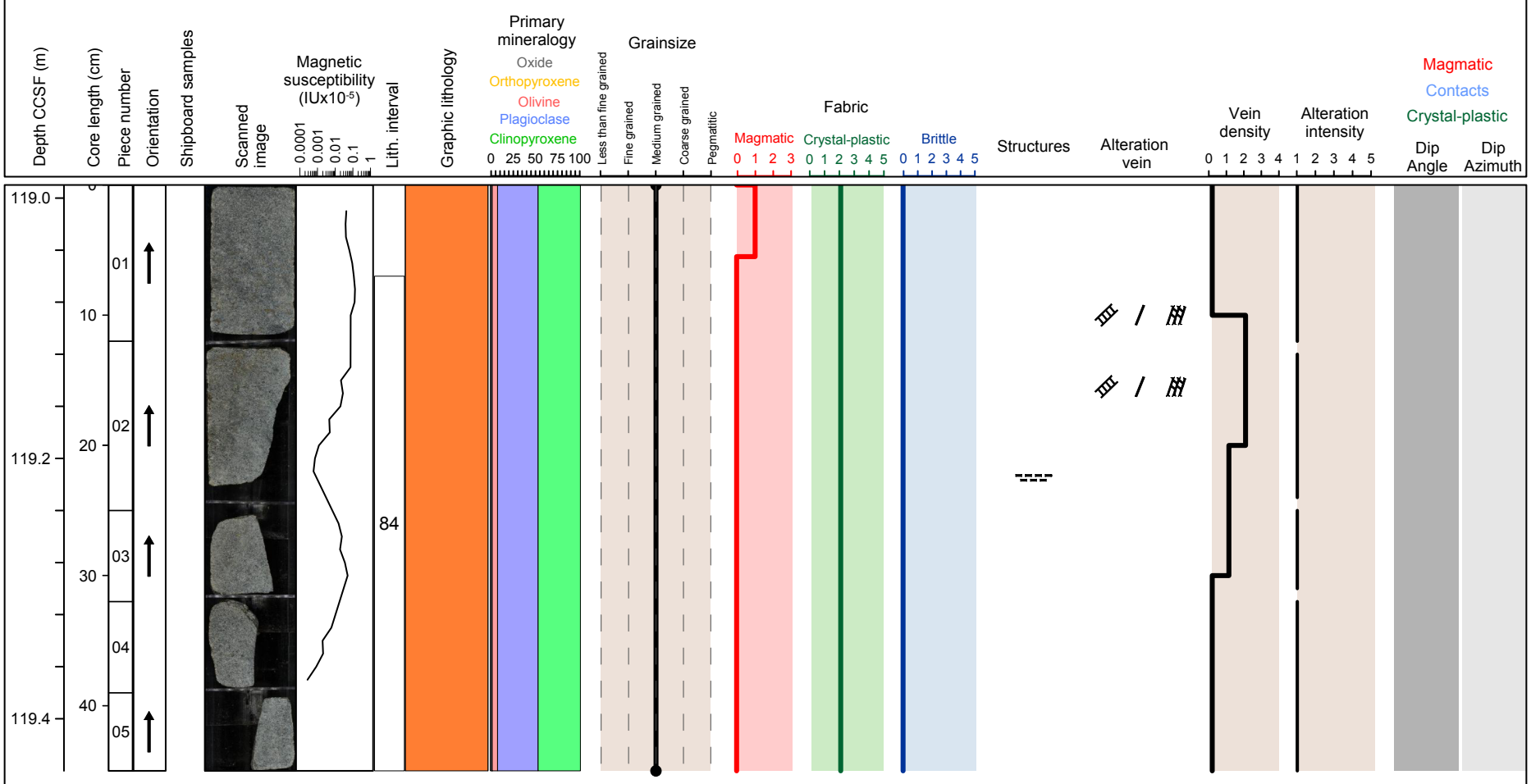


Hole 360-1105A-22R Section 4, Top of Section: 118.95 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained subophitic oxide bearing olivine gabbro (interval 84)

Metamorphic Petrology: Static background alteration intensity is slight; Alteration minerals are mainly amphibole and chlorite.

Structural Geology: The igneous contacts are defined by grain size. The magmatic fabrics are inclined and defined by pyroxene. The crystal plastic shear zone is moderately dipping and overprints the magmatic fabric.

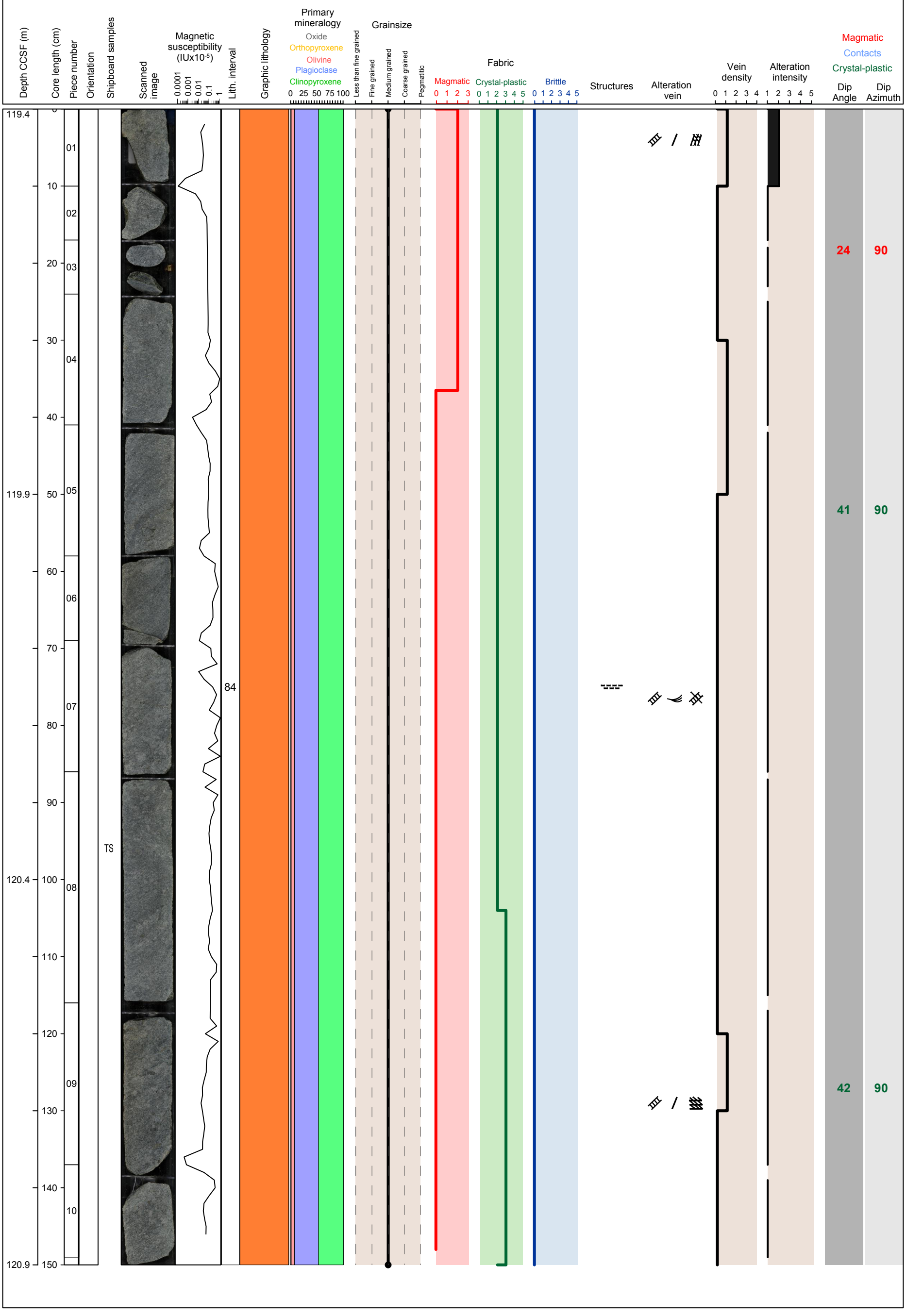


Hole 360-1105A-23R Section 1, Top of Section: 119.4 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained subophitic oxide bearing olivine gabbro (interval 84)

Metamorphic Petrology: Section consists of fresh mylonites that include clinopyroxene and plagioclase neoblasts.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. There is a slickenline at 136 cm.

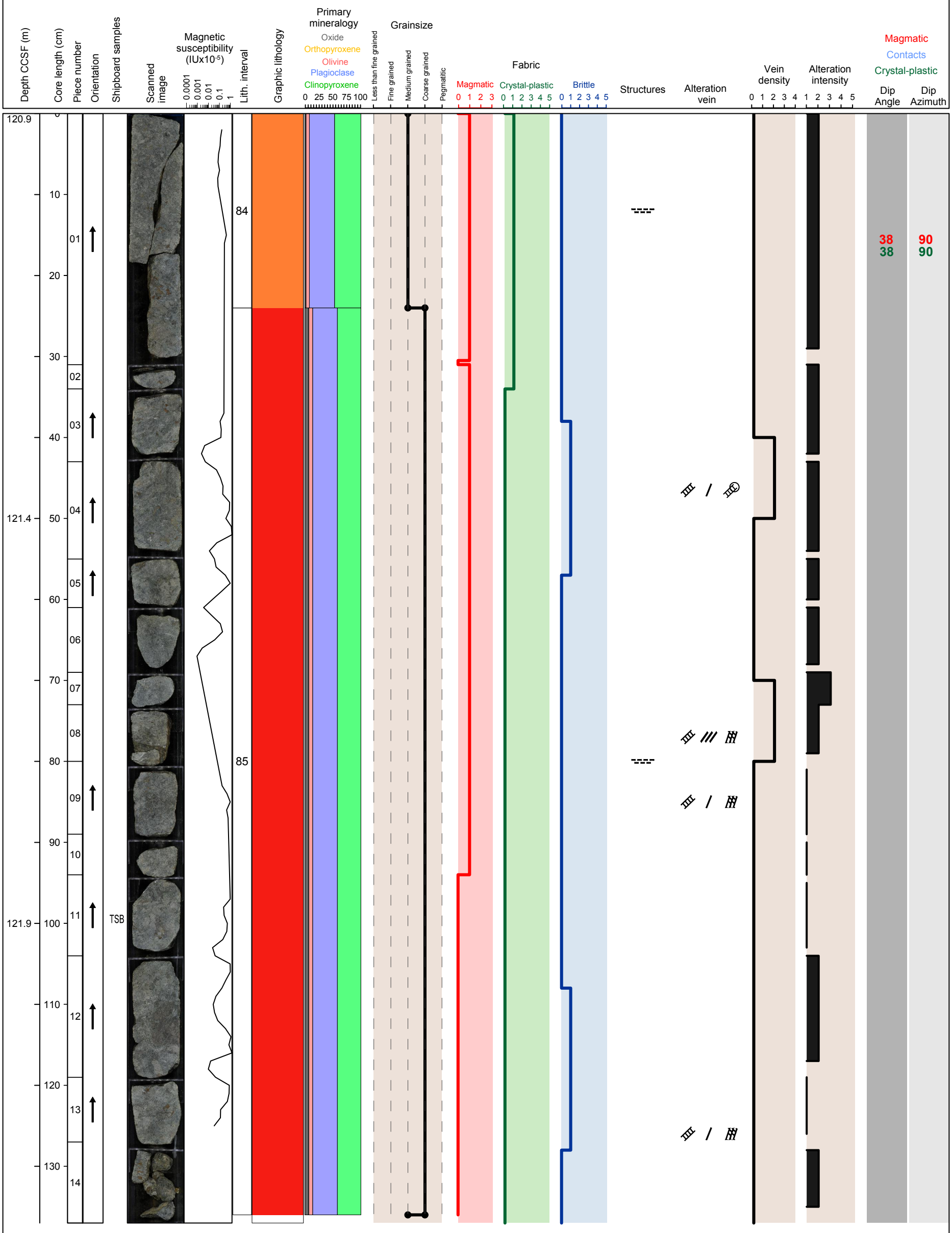


Hole 360-1105A-23R Section 2, Top of Section: 120.9 m (CCSF-179-1105-A-20151216)

Igneous Petrology: medium grained subophitic oxide bearing olivine gabbro (interval 84) and coarse grained granular olivine oxide gabbro (interval 85)

Metamorphic Petrology: The upper part of the section is moderately altered (frequent coronas of amphibole around pyroxene) and is separated by a mylonitic band from the lower part of the section. The lower part is very fresh with alteration mostly limited to olivine.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. The crystal plastic fabric is moderately dipping and overprints the magmatic fabric.

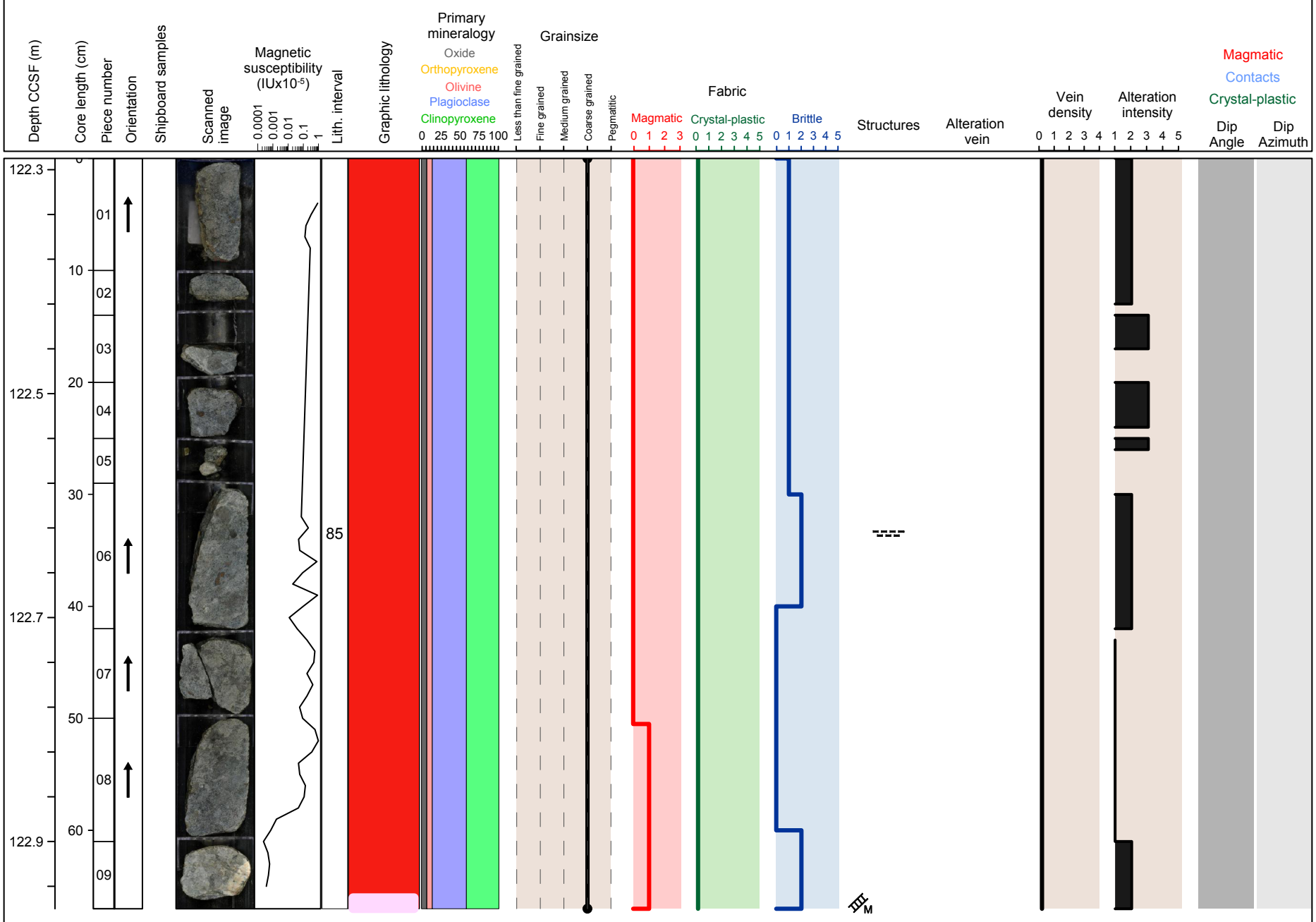


Hole 360-1105A-23R Section 3, Top of Section: 122.27 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 85) with one felsic vein

Metamorphic Petrology: Alteration as a whole is moderate and is restricted to olivine replaced by talc and clays. Plagioclase, in the middle of the section, is locally replaced by secondary plagioclase. There are frequent amphibole corona around clinopyroxene.

Structural Geology: There is a moderately plunging slickline at 1 cm on the back of the piece.

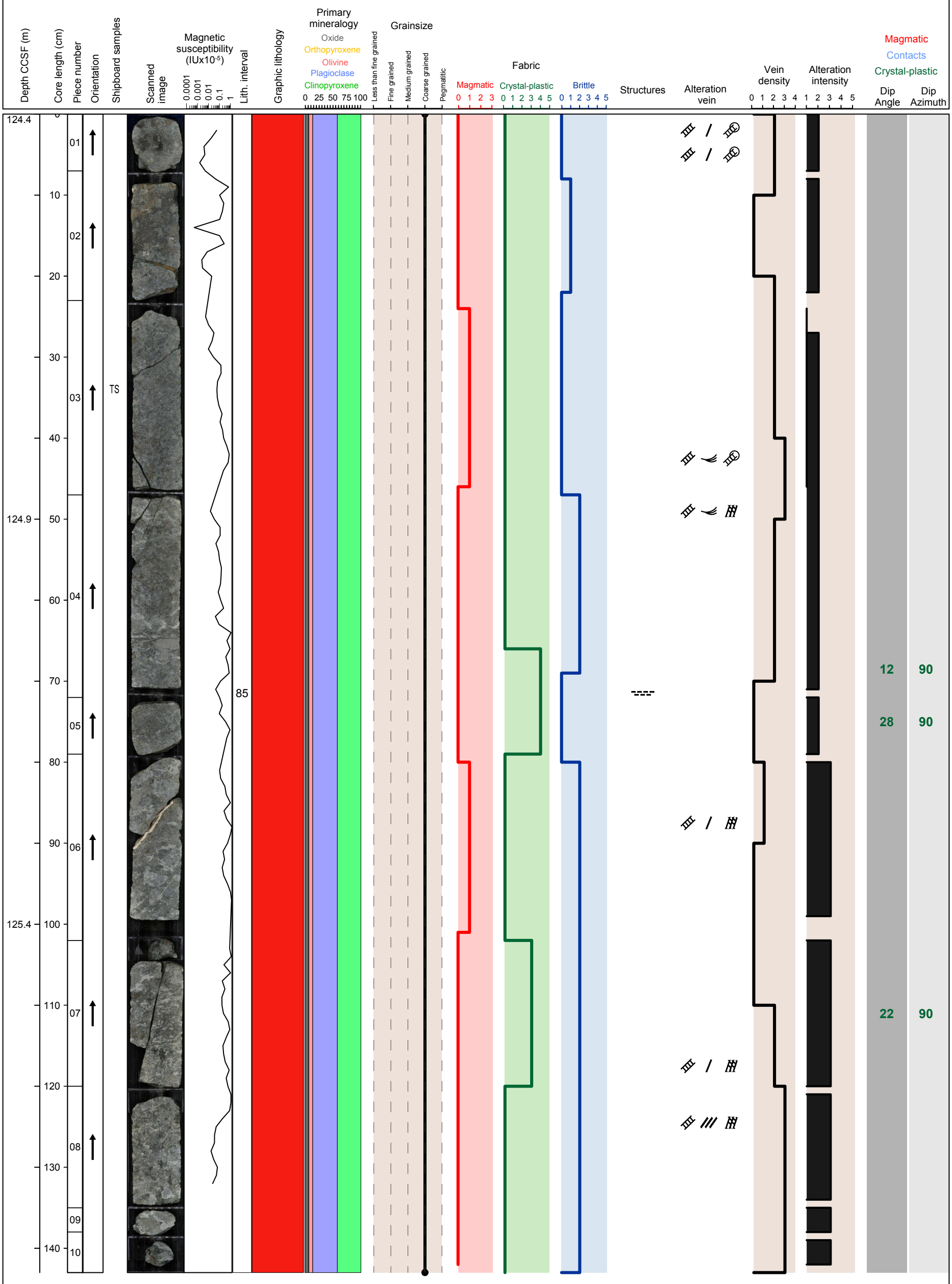


Hole 360-1105A-24R Section 1, Top of Section: 124.4 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 85)

Metamorphic Petrology: Alteration varies downwards from weak to moderate along the section. Alteration is mostly associated with plagioclase locally replaced by secondary plagioclase. Local occurrence of amphibole coronas around pyroxene and of chlorite coronas around olivine.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene. The vein is carbonate at 87.5 cm. There is a moderately plunging slickenline at 18 cm.

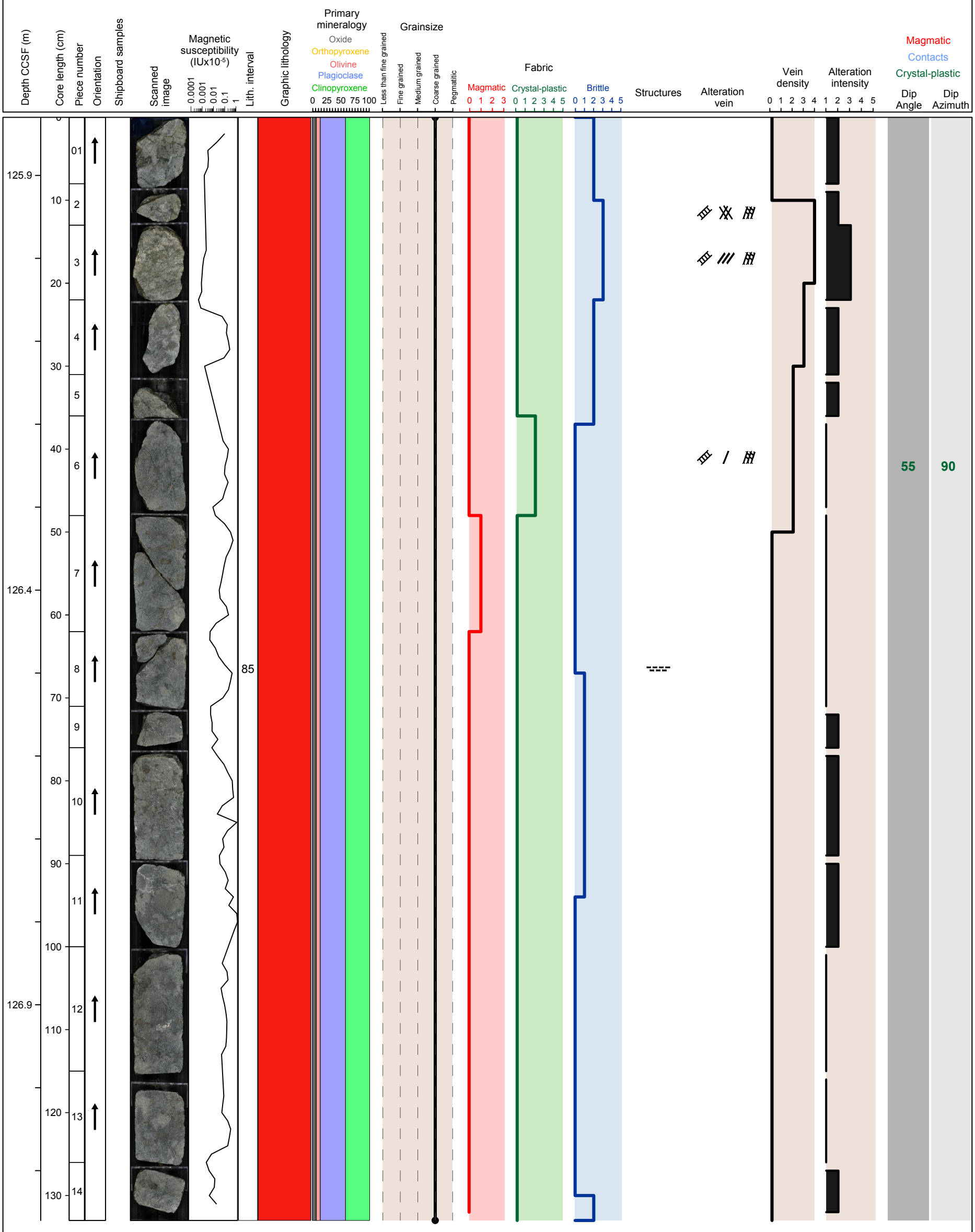


Hole 360-1105A-24R Section 2, Top of Section: 125.83 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 85)

Metamorphic Petrology: The section as a whole is weakly altered. Alteration is intense in proximity to amphibole veins, where plagioclase is partially replaced by secondary plagioclase.

Structural Geology: There is a foliated microgabbro which intruded the coarser grained gabbro. The crystal plastic fabric is sub-parallel to the microgabbro and sub-horizontal.

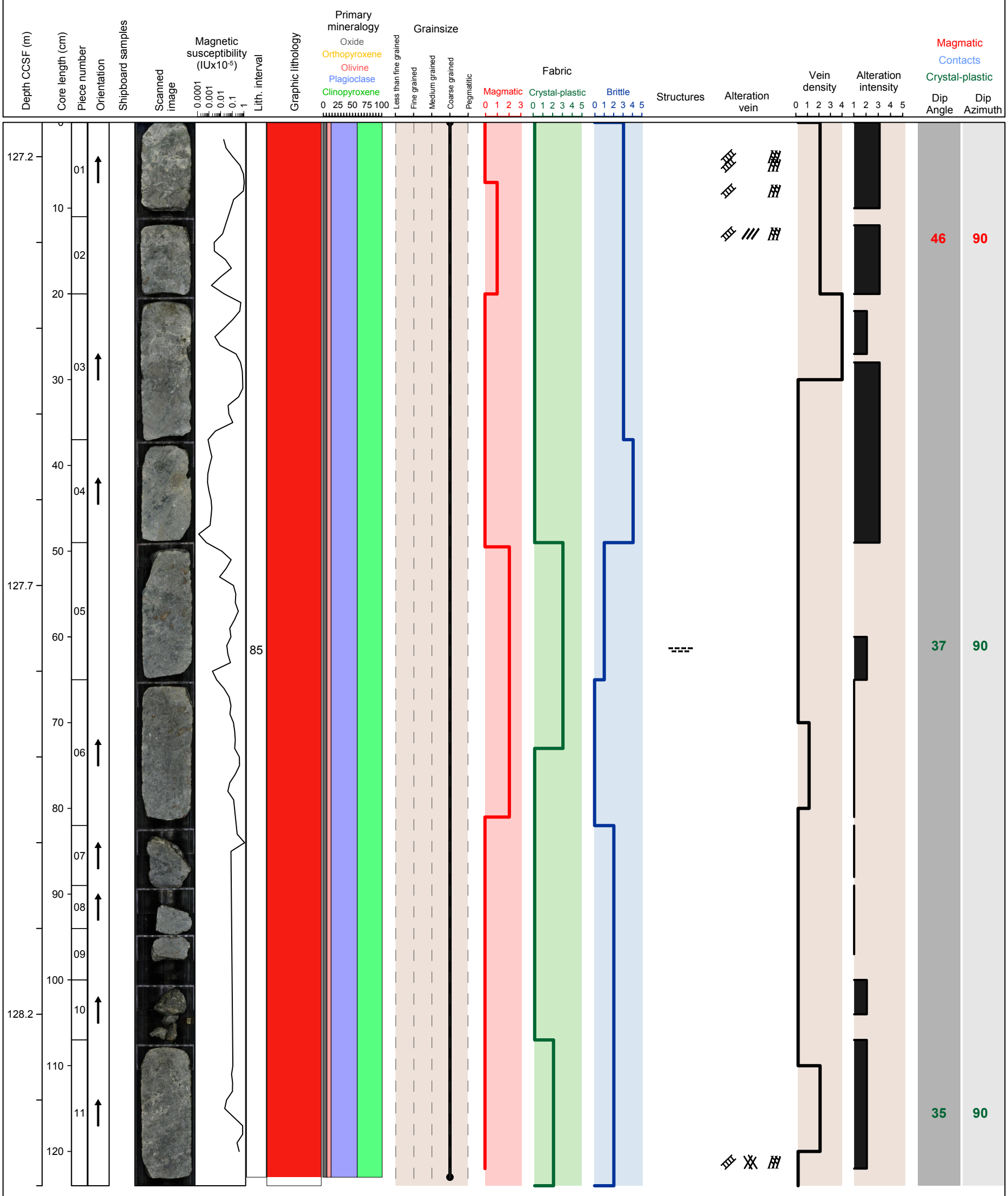


Hole 360-1105A-24R Section 3, Top of Section: 127.16 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 85)

Metamorphic Petrology: Alteration is more intense at the top of the section where it is associated with veins. Amphibole coronas are locally observed around pyroxene and olivine.

Structural Geology: The igneous contacts have moderate dips. The crystal plastic shear is sub-horizontal and the sense of shear is sinistral-reverse. There is a parallel set of microveins at 120.5-122 cm.

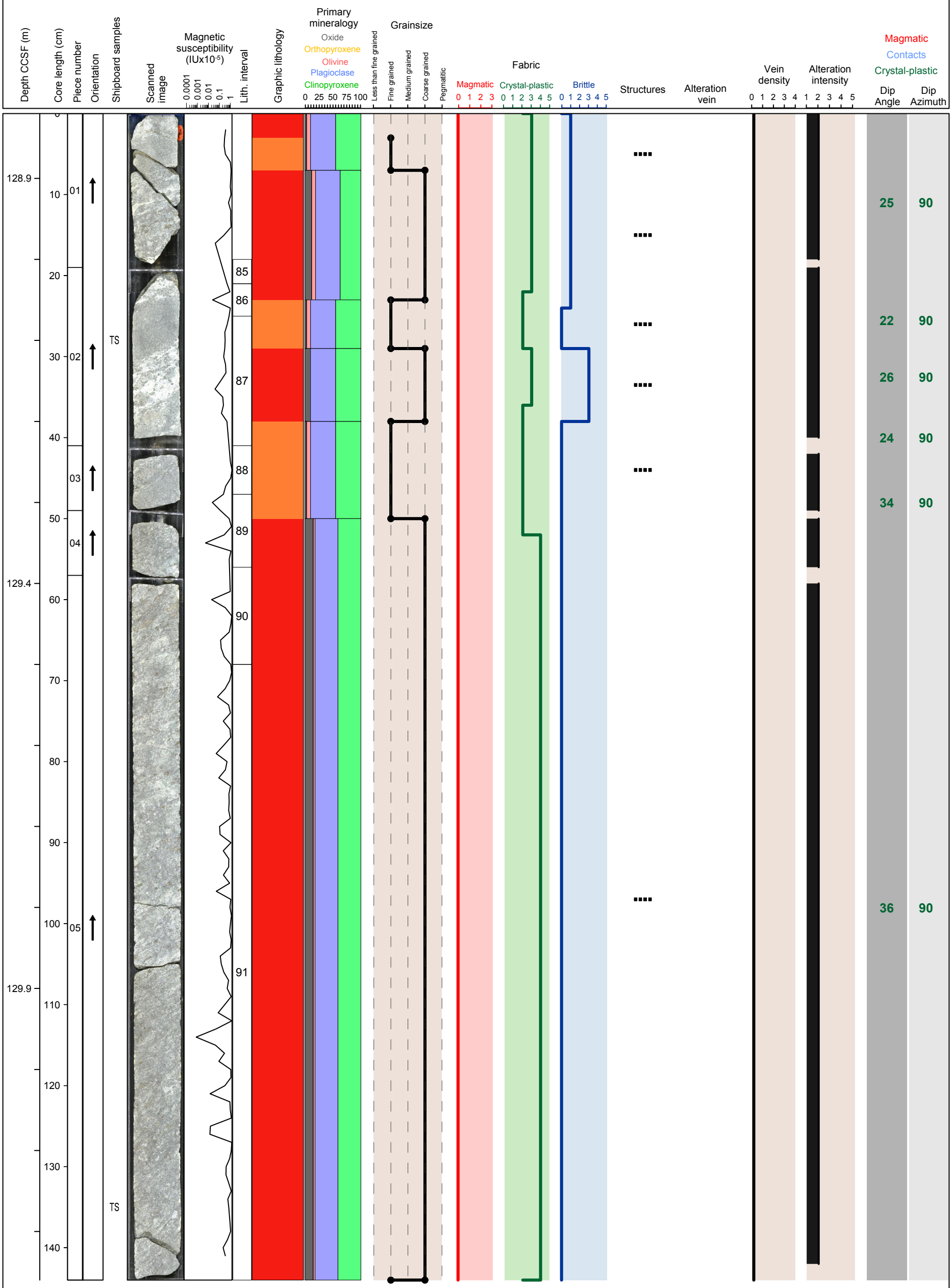


Hole 360-1105A-25R Section 1, Top of Section: 128.82 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 85), and fine grained granular oxide bearing olivine gabbro (interval 86, 88 & 90) intrusive into coarse grained granular oxide olivine gabbro (interval 87, 91) and coarse grained granular oxide gabbro (interval 89)

Metamorphic Petrology: In mylonitic zone, clinopyroxene and plagioclase are dominated in porphyroclasts and neoblasts; Static background alteration intensity is slight to moderate; Ateration minerals are mainly amphibole, chlorite and brownish clay.

Structural Geology: The crystal plastic foliation is moderately dipping.

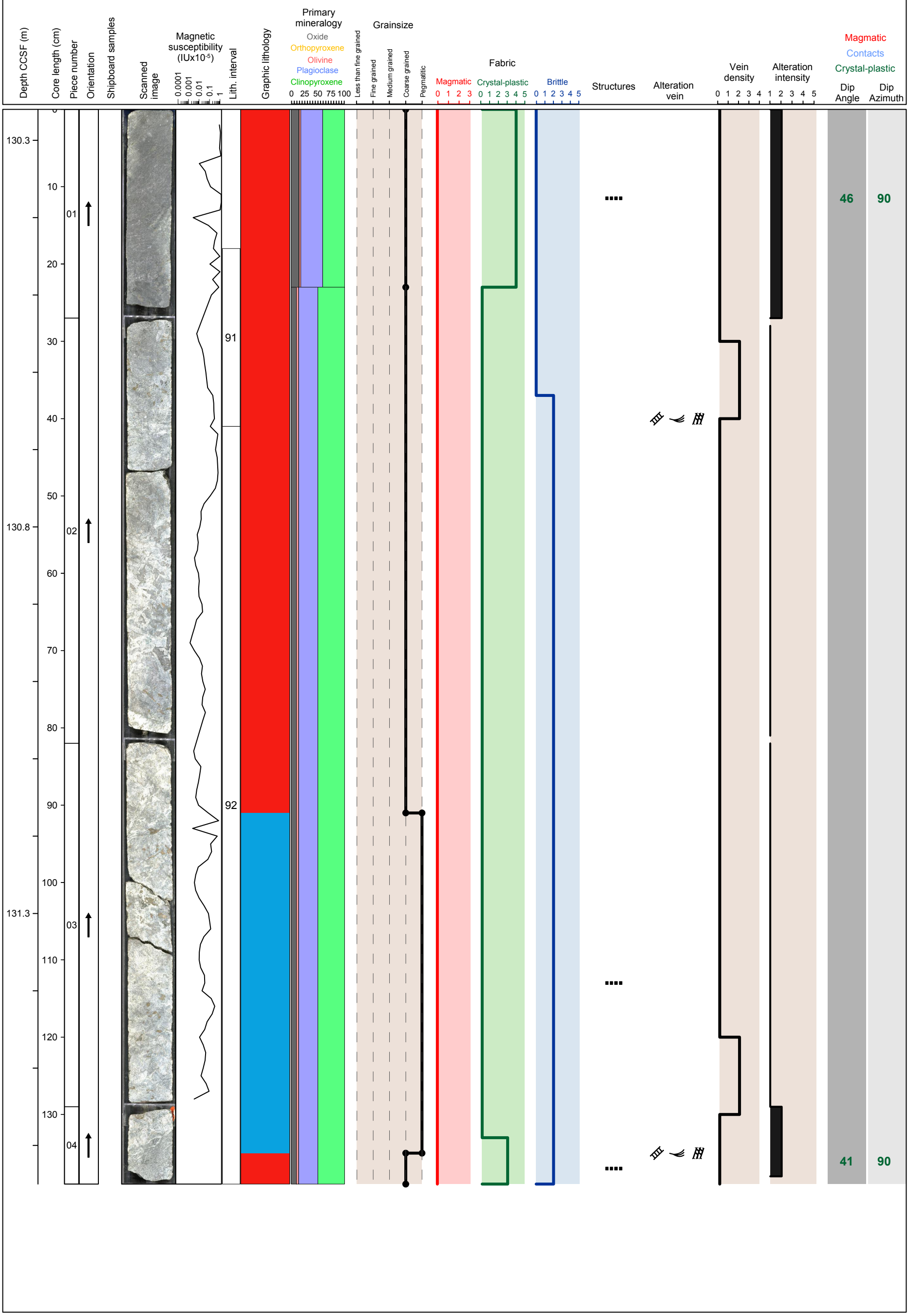


Hole 360-1105A-25R Section 2, Top of Section: 130.26 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular oxide olivine gabbro (interval 91), pegmatitic poikilitic olivine bearing gabbro (interval 92) and coarse grained granular olivine bearing oxide gabbro (interval 93)

Metamorphic Petrology: Mylonitic zone has clinopyroxene and plagioclase porphyroclasts and neoblasts; Static background alteration intensity is slight; Alteration minerals are mainly amphibole, chlorite and brownish clay.

Structural Geology: There is a fine grained layer within the unfoliated gabbro. The magmatic fabrics are inclined and defined by pyroxene and locally olivine. The crystal plastic foliation is a gneissic with a moderate dip. The alteration veins crosscut the shear zone.

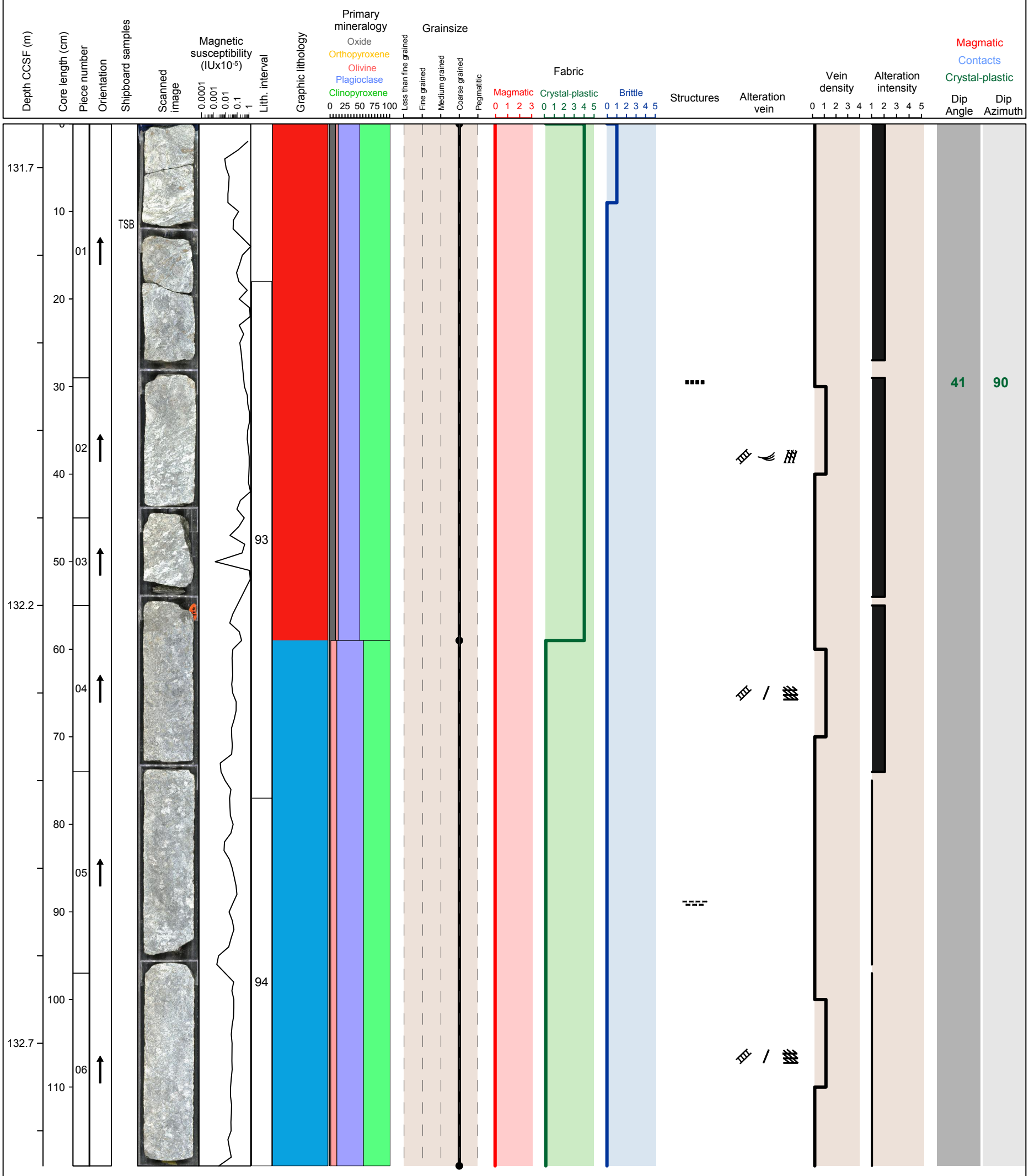


Hole 360-1105A-25R Section 3, Top of Section: 131.65 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine bearing oxide gabbro (interval 93) and coarse grained subophitic opx bearing olivine gabbro (interval 94)

Metamorphic Petrology: Mylonitic zone has clinopyroxene and plagioclase porphyroclasts and neoblasts; Static background alteration intensity is slight to moderate; Alteration minerals are mainly amphibole, chlorite and brownish clay.

Structural Geology: There is sub-horizontal modal layering. The magmatic fabrics are sub-horizontal and defined by pyroxene. The shear zone is moderately dipping.

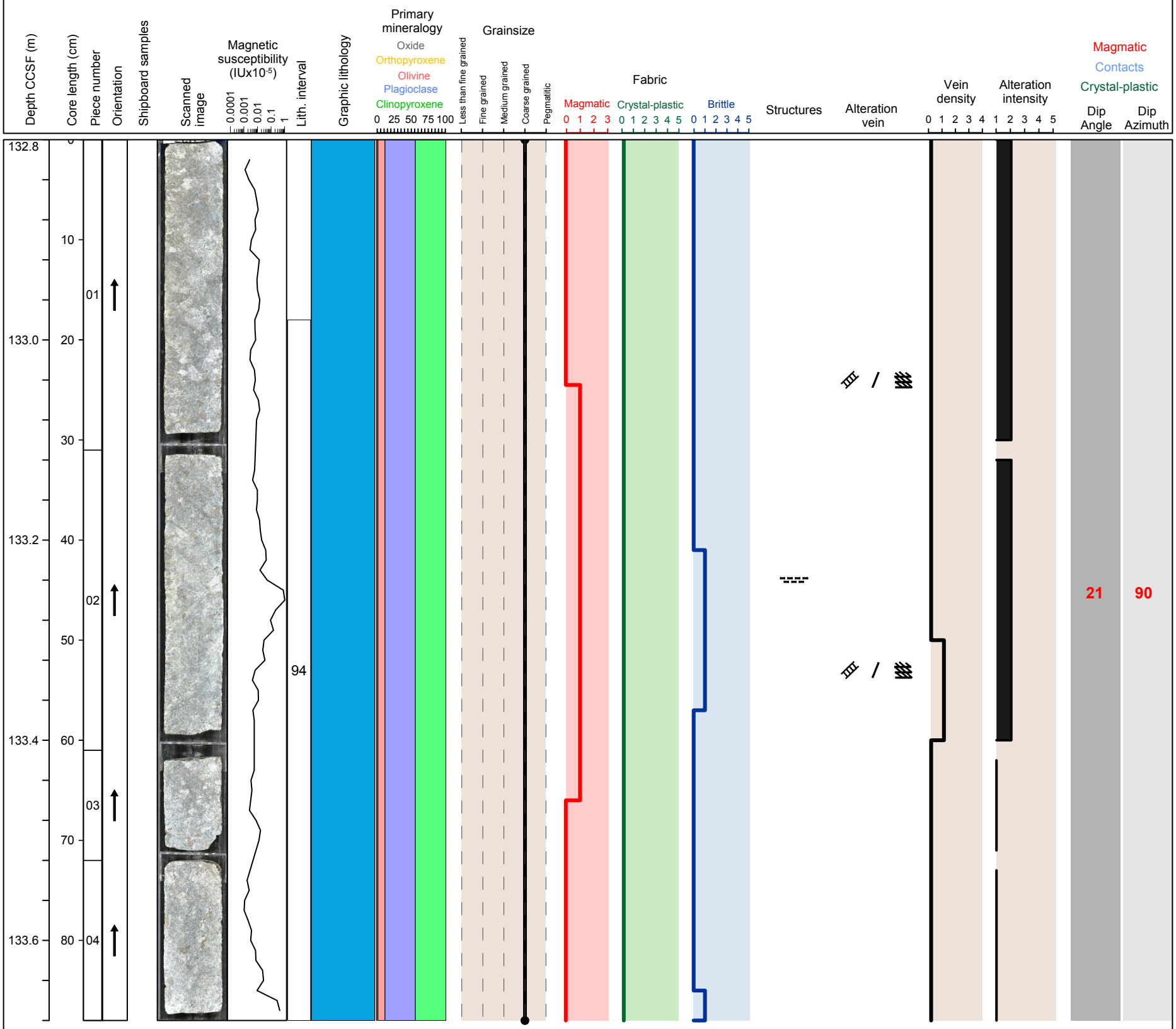


Hole 360-1105A-25R Section 4, Top of Section: 132.84 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic opx bearing olivine gabbro (interval 94)

Metamorphic Petrology: Static background alteration intensity is slight; Alteration minerals are mainly amphibole, chlorite and brownish clay.

Structural Geology: The magmatic fabrics are inclined and defined by pyroxene and locally olivine. The crystal plastic shear zone is in contact with an unfoliated gabbro.

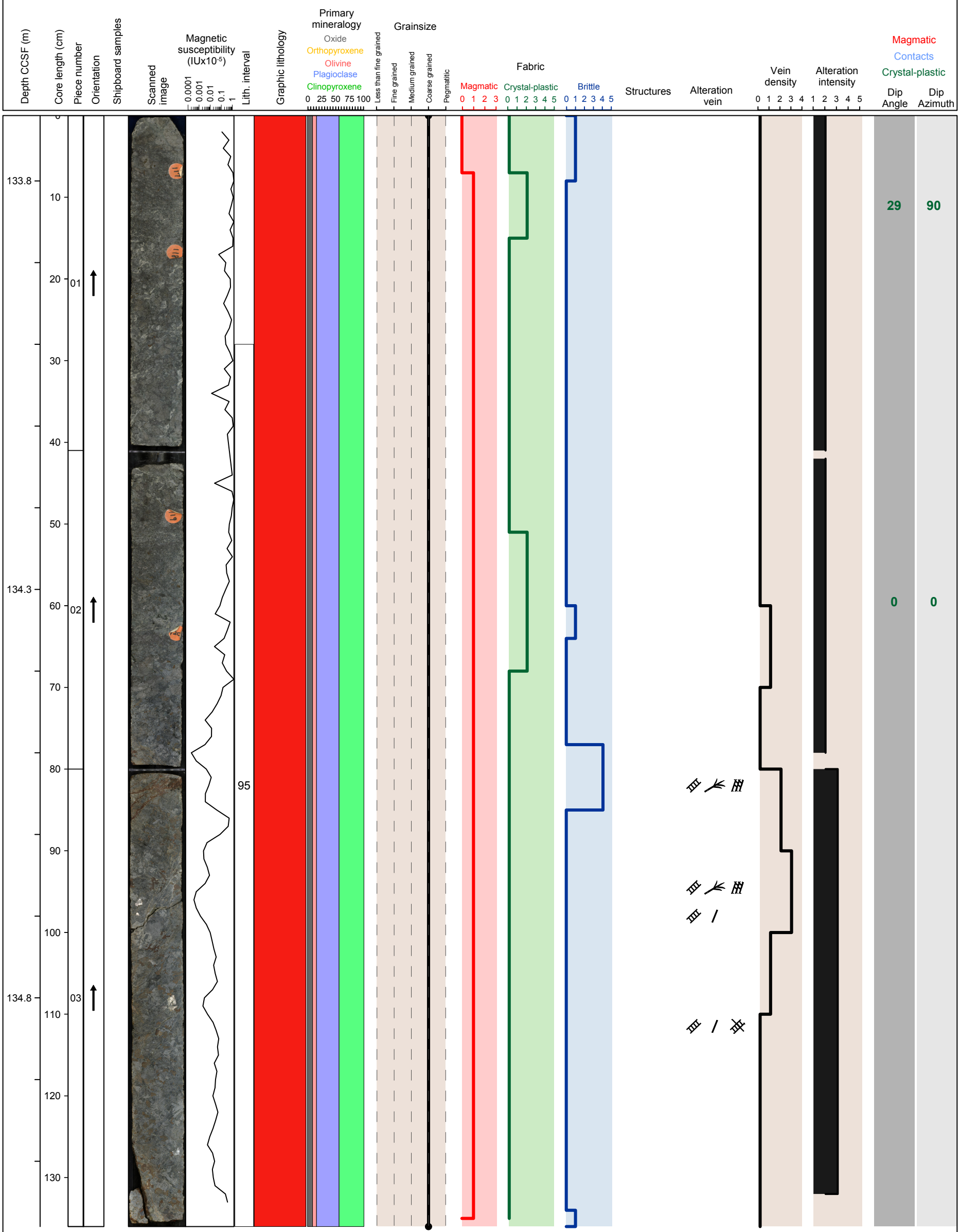


Hole 360-1105A-26R Section 1, Top of Section: 133.72 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 95)

Metamorphic Petrology: Moderately altered at the top of the section. The bottom is markedly altered. Most of the alteration is related to olivine replaced by orange clay near veins filled with clay and locally carbonate.

Structural Geology: There is a sharp contact between a crystal plastic fabric and a subhorizontal contact. The magmatic fabric is defined by pyroxene.

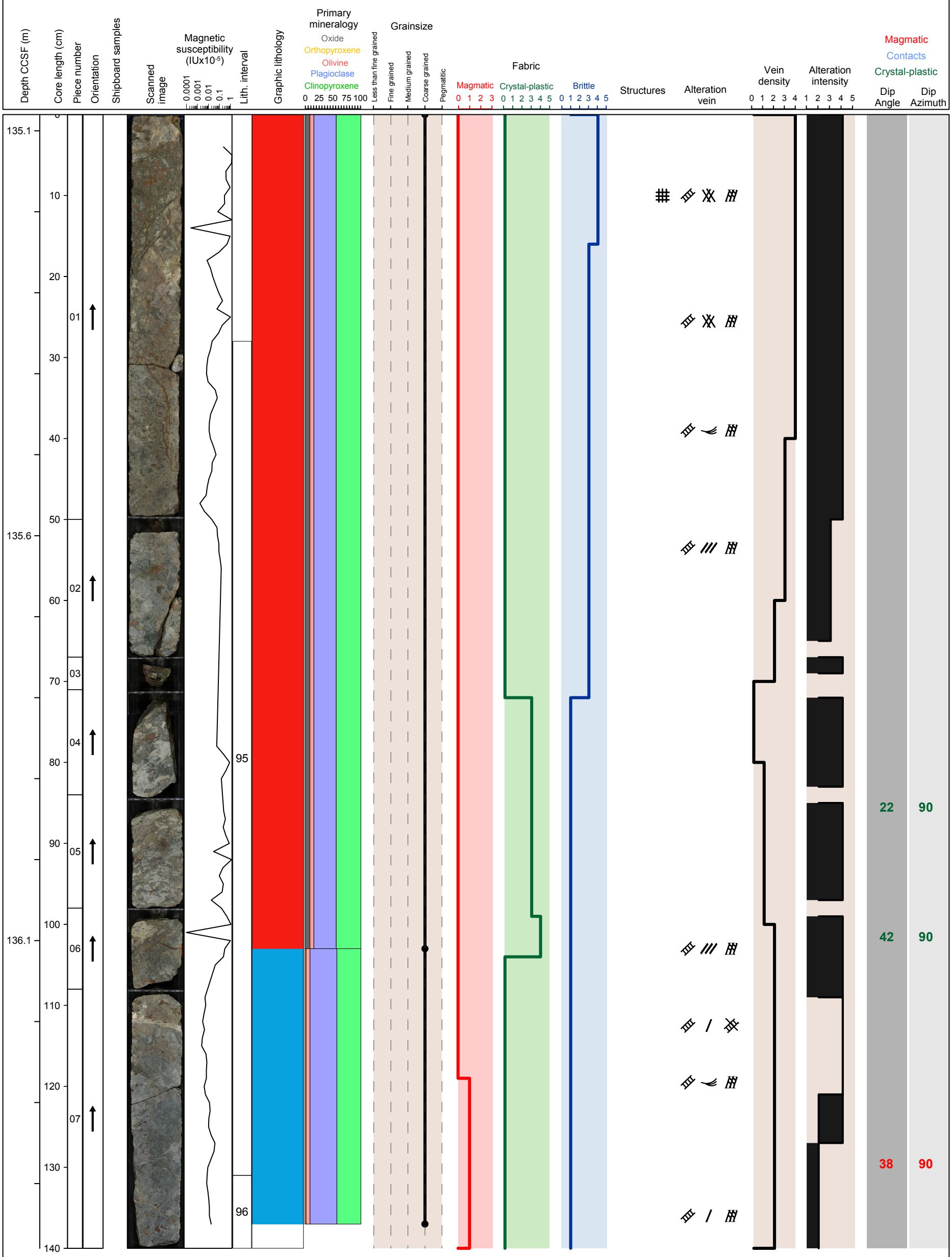


Hole 360-1105A-26R Section 2, Top of Section: 135.08 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained granular olivine oxide gabbro (interval 95) and coarse grained opx bearing olivine gabbro with medium grained olivine gabbro domain (interval 96)

Metamorphic Petrology: Section is intensely altered related to dense orange clay veining. Occurence of a mylonitic zone and of frequent amphibole coronas around olivine and pyroxene. Bottom of the section is rather fresh.

Structural Geology: Coarse grained crystal plastic fabric cut by moderately dipping contact. Magmatic fabrics are inclined defined by olivine and pyroxene. Alteration veins are steeply dipping in vein networks that crosscut brecciated zones. There is a brecciated fault zone

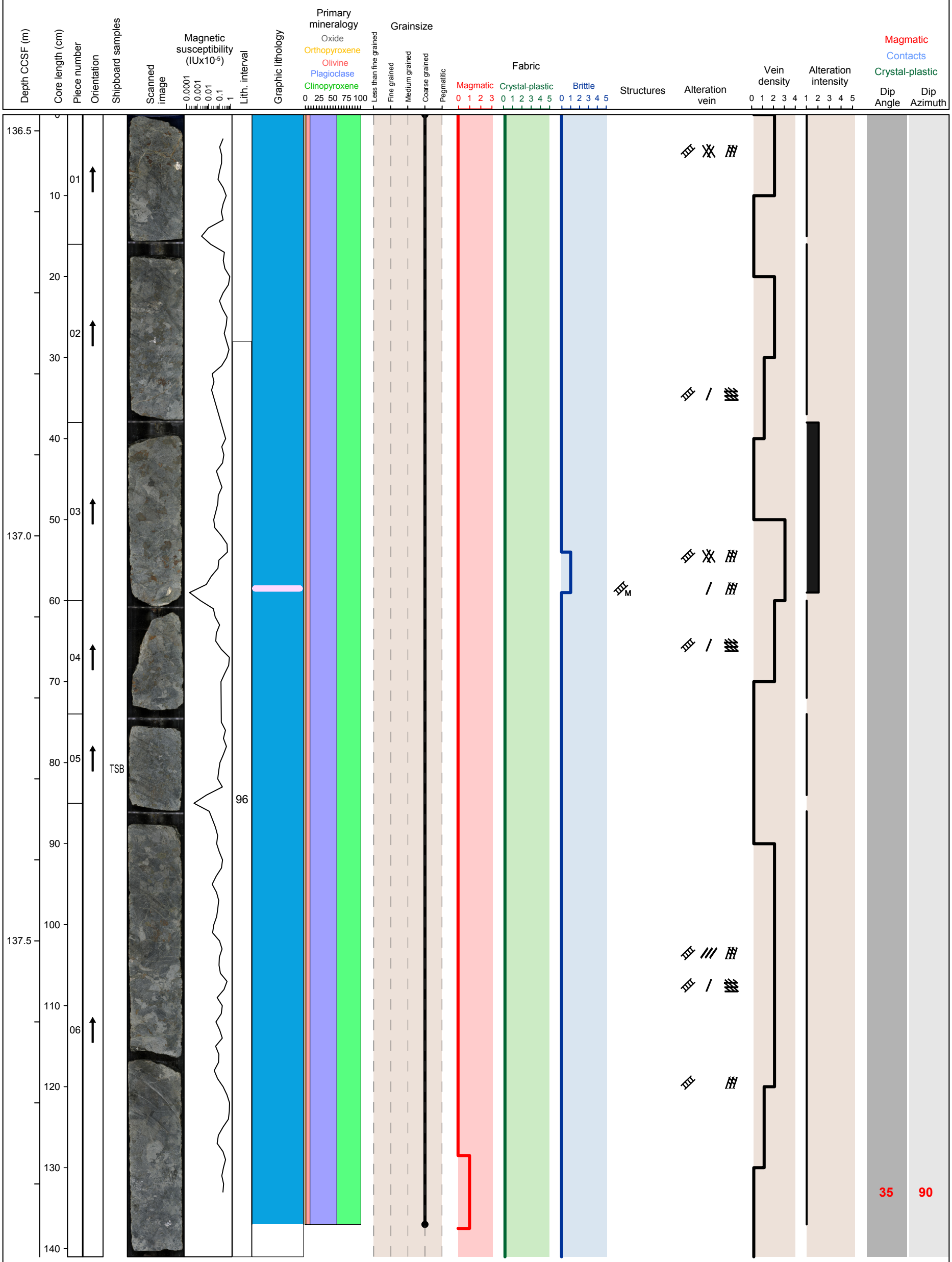


Hole 360-1105A-26R Section 3, Top of Section: 136.48 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained opx bearing olivine gabbro with medium grained olivine gabbro domain (interval 96)

Metamorphic Petrology: Section is very fresh with only olivine locally replaced by orange clays in some areas near veins.

Structural Geology: The igneous contact is gradational. The magmatic fabric is inclined defined by pyroxene. There is a large open vein with massive carbonate crystals.

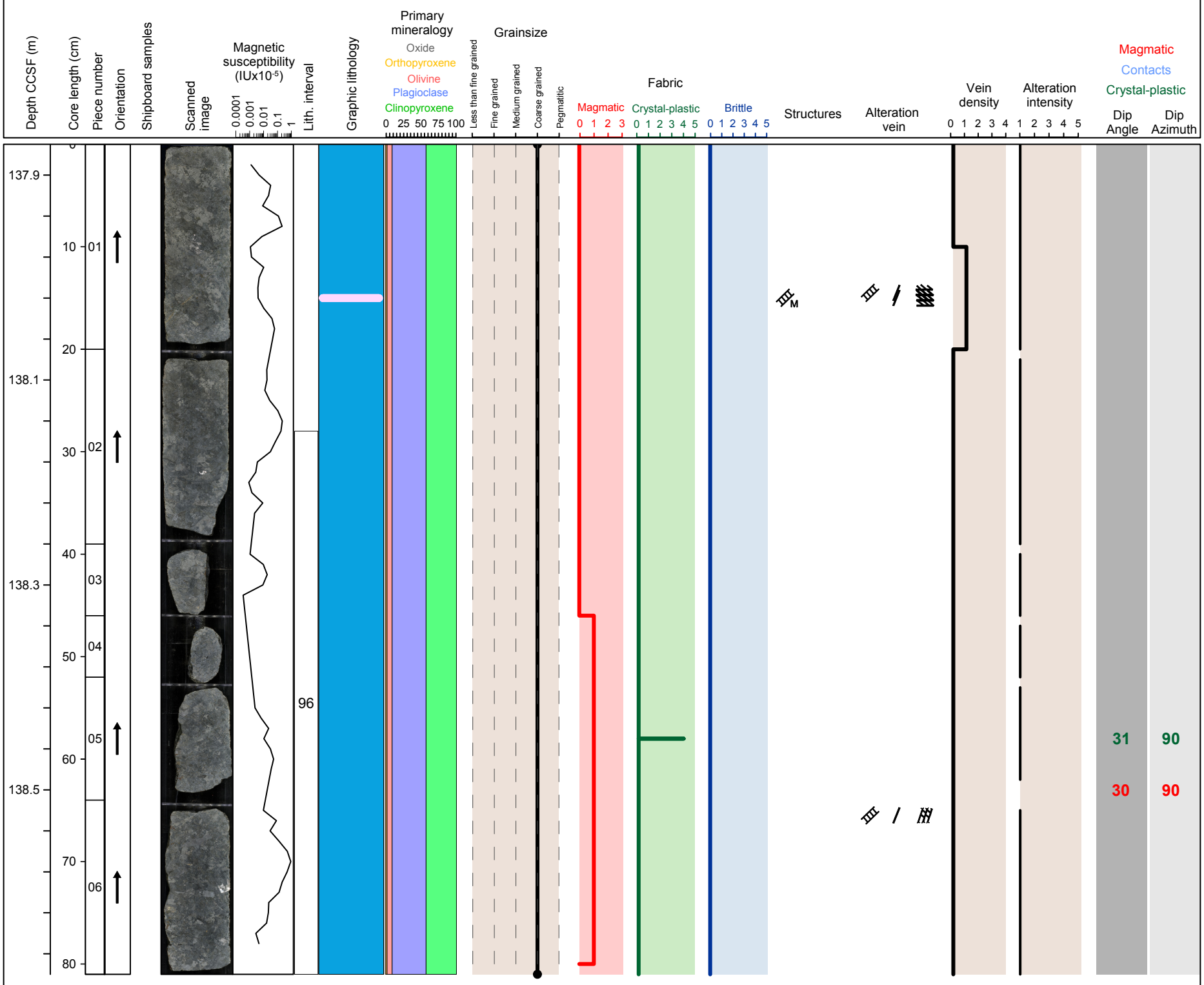


Hole 360-1105A-26R Section 4, Top of Section: 137.89 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained opx bearing olivine gabbro with medium grained olivine gabbro domain (interval 96)

Metamorphic Petrology: Section is very fresh.

Structural Geology: Inclined magmatic fabric defined by pyroxene. Crystal plastic fabric defined by bands of plagioclase.

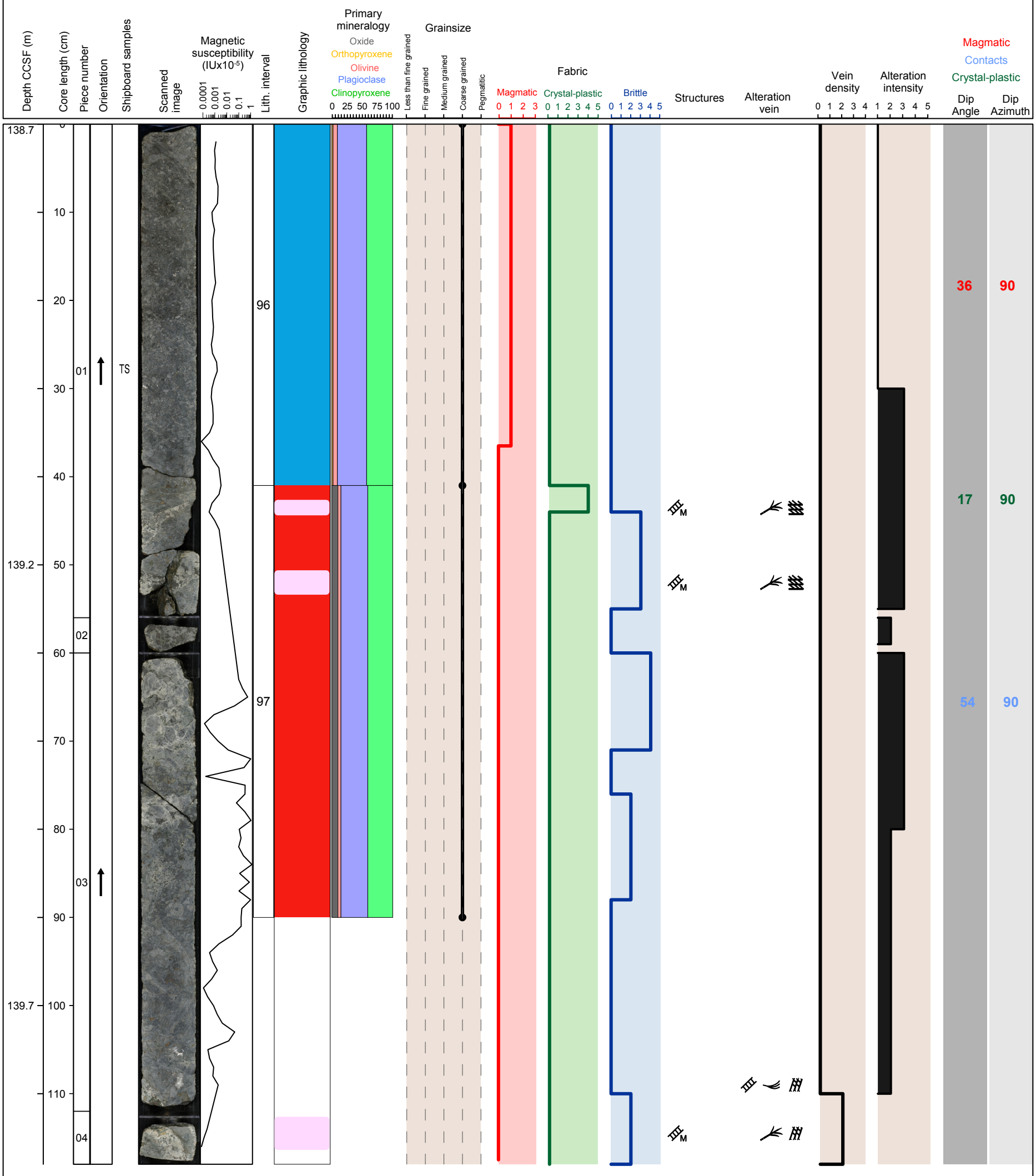


Hole 360-1105A-27R Section 1, Top of Section: 138.7 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained opx bearing olivine gabbro with medium grained olivine gabbro domain (interval 96) and coarse grained granular olivine oxide gabbro (interval 97) with three felsic veins

Metamorphic Petrology: The top of the section is fresh. The intermediate part of the section has mild to marked alteration with Amp coronas around Px and titanite coronas around oxides. The lower part is only moderately altered.

Structural Geology: Igneous contact is subhorizontal and sharp consisting of oxide layers. Magmatic fabrics are inclined and defined by pyroxene and plagioclase. There are two magmatic breccias at 44-55 cm and 110-119 cm. Mylonitic zones are discrete.

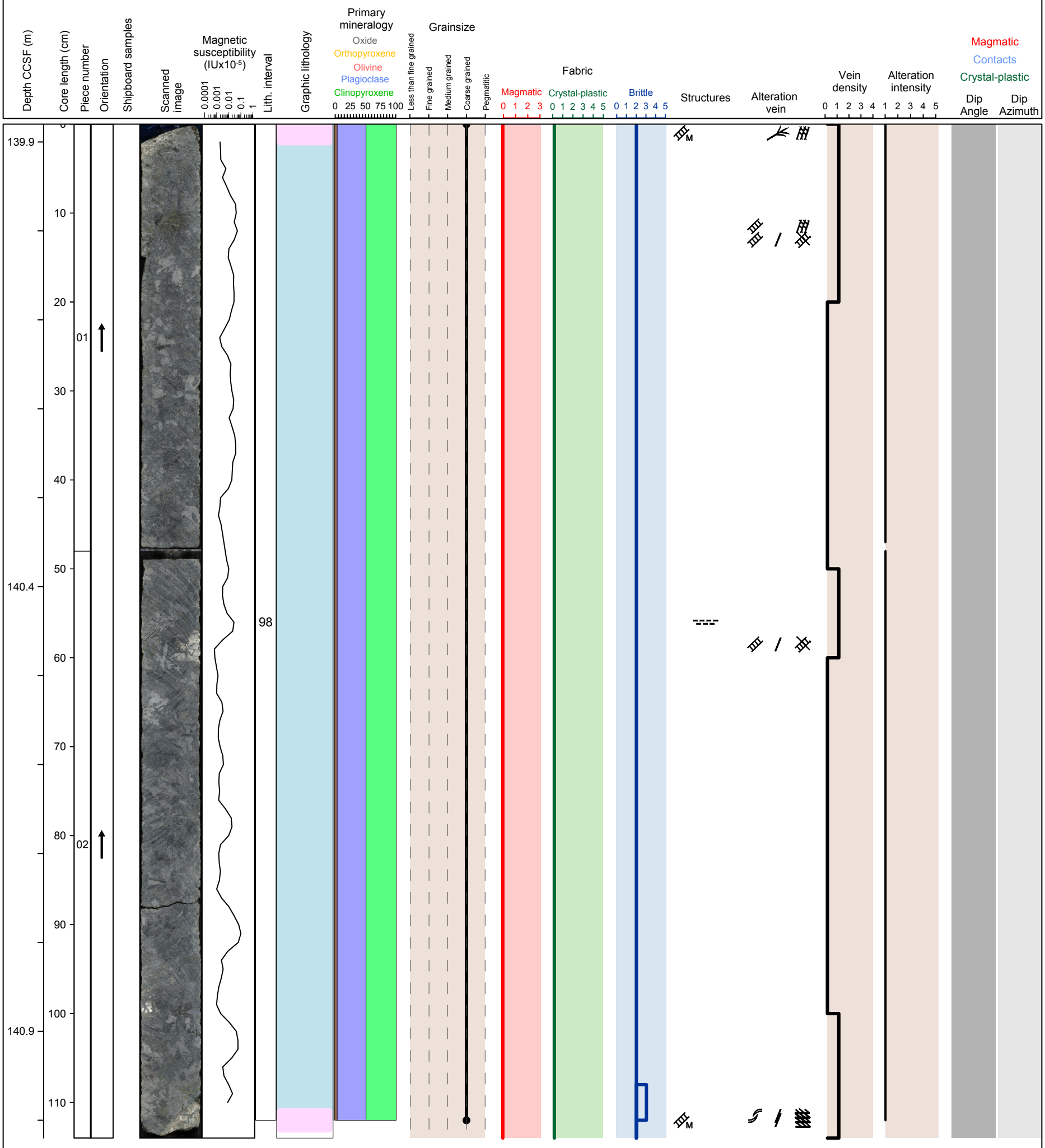


Hole 360-1105A-27R Section 2, Top of Section: 139.88 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained olivine and opx bearing gabbro (interval 98) with two felsic veins

Metamorphic Petrology: The bulk section is fresh. Alteration is mostly localized along veins and Amp coronas around Px are locally present.

Structural Geology: Magmatic breccias at 0-4 cm and 108-112 cm.

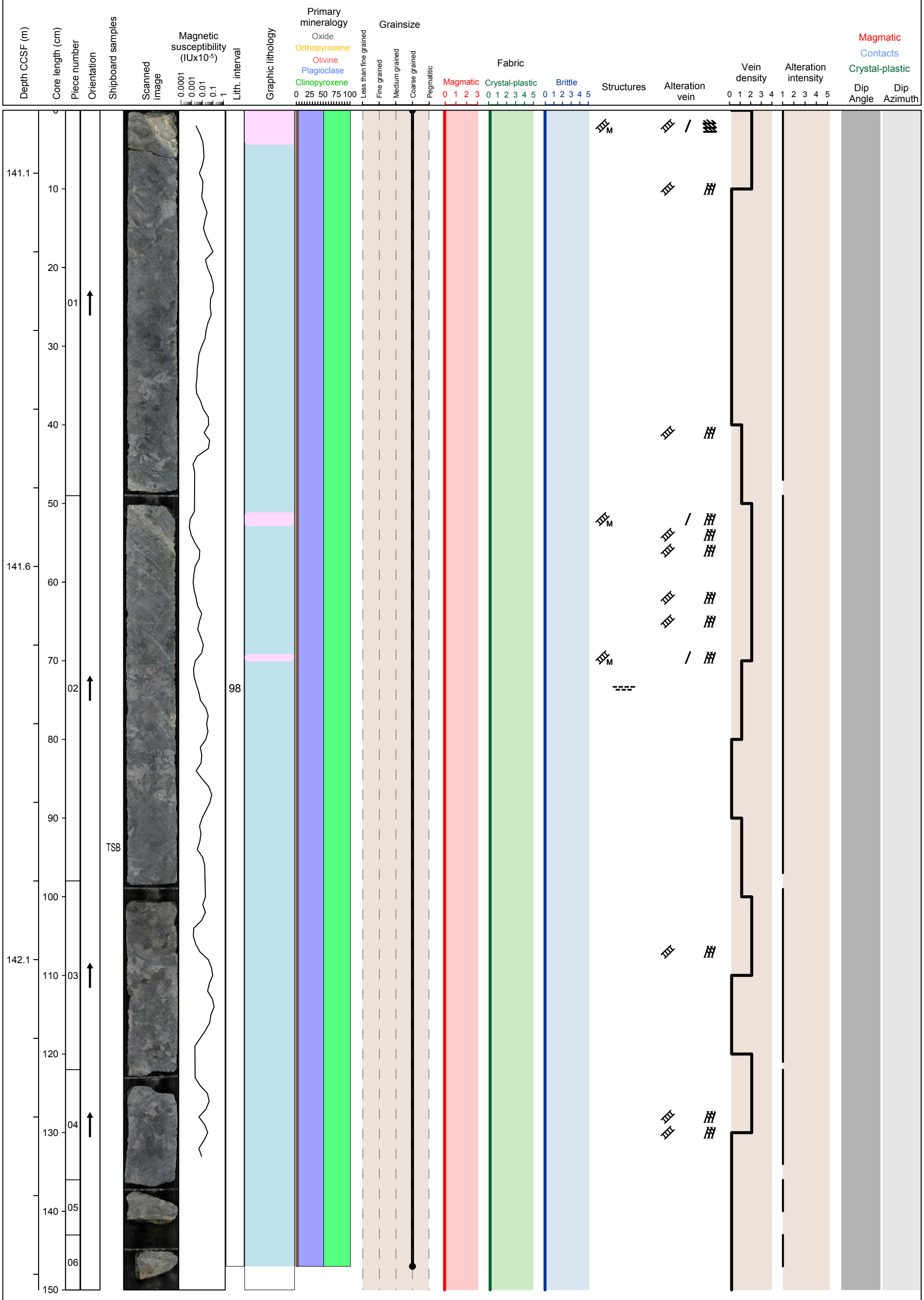


Hole 360-1105A-27R Section 3, Top of Section: 141.02 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained olivine and opx bearing gabbro (interval 98) with two felsic veins

Metamorphic Petrology: The bulk section is fresh. A felsic vein is present in the uppermost part of the section. The inner portion of the vein probably consists of fine-grained aggregates including chlorite.

Structural Geology:

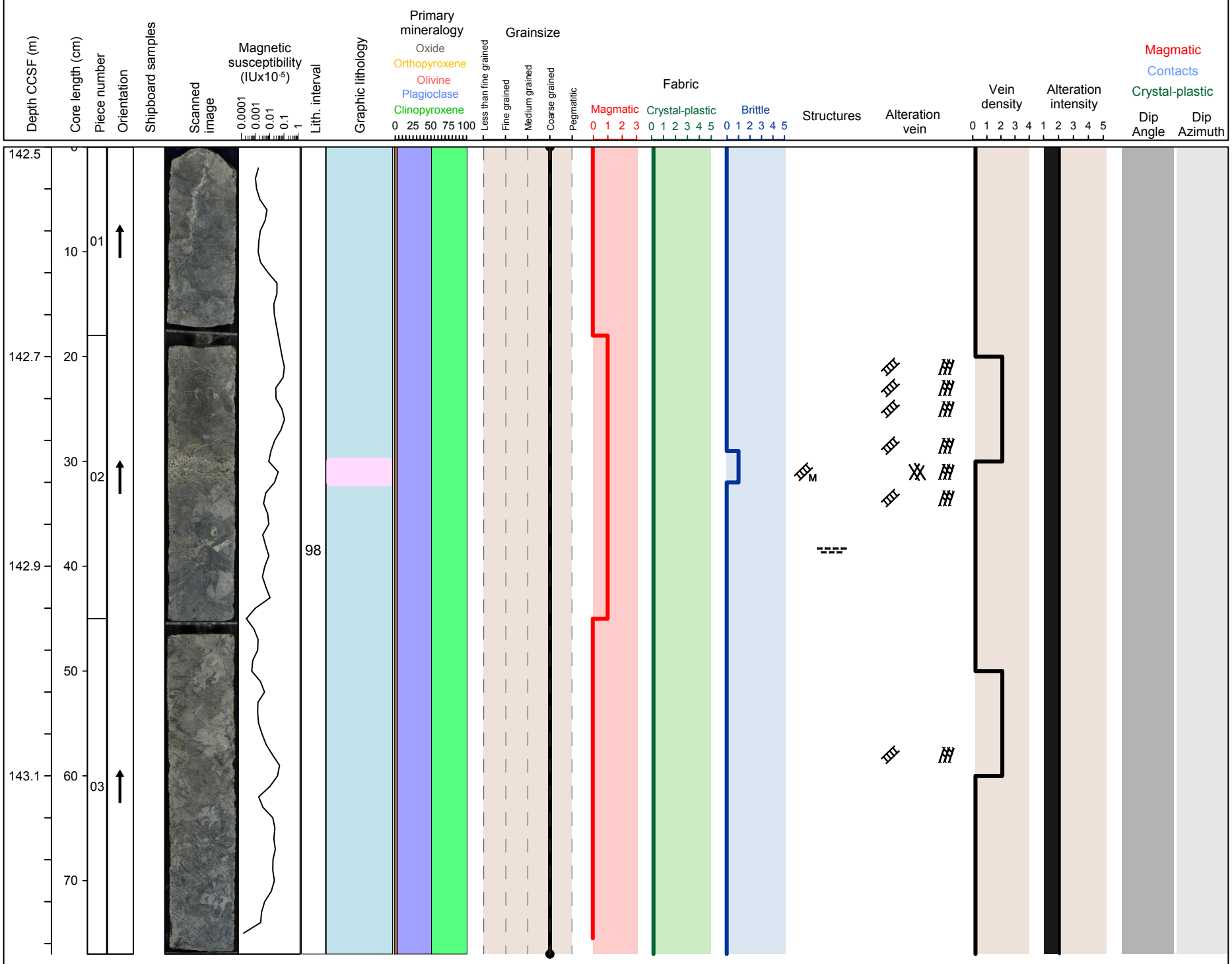


Hole 360-1105A-27R Section 4, Top of Section: 142.52 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained olivine and opx bearing gabbro (interval 98)

Metamorphic Petrology: The bulk section is fresh. Frequent Amp corona around Px. Alteration is locally more intense near a couple of leucocratic veins and produces secondary plagioclase and minor chlorite after magmatic plagioclase. Sulfides is present in one of these veins.

Structural Geology: Magmatic fabric defined by pyroxene.

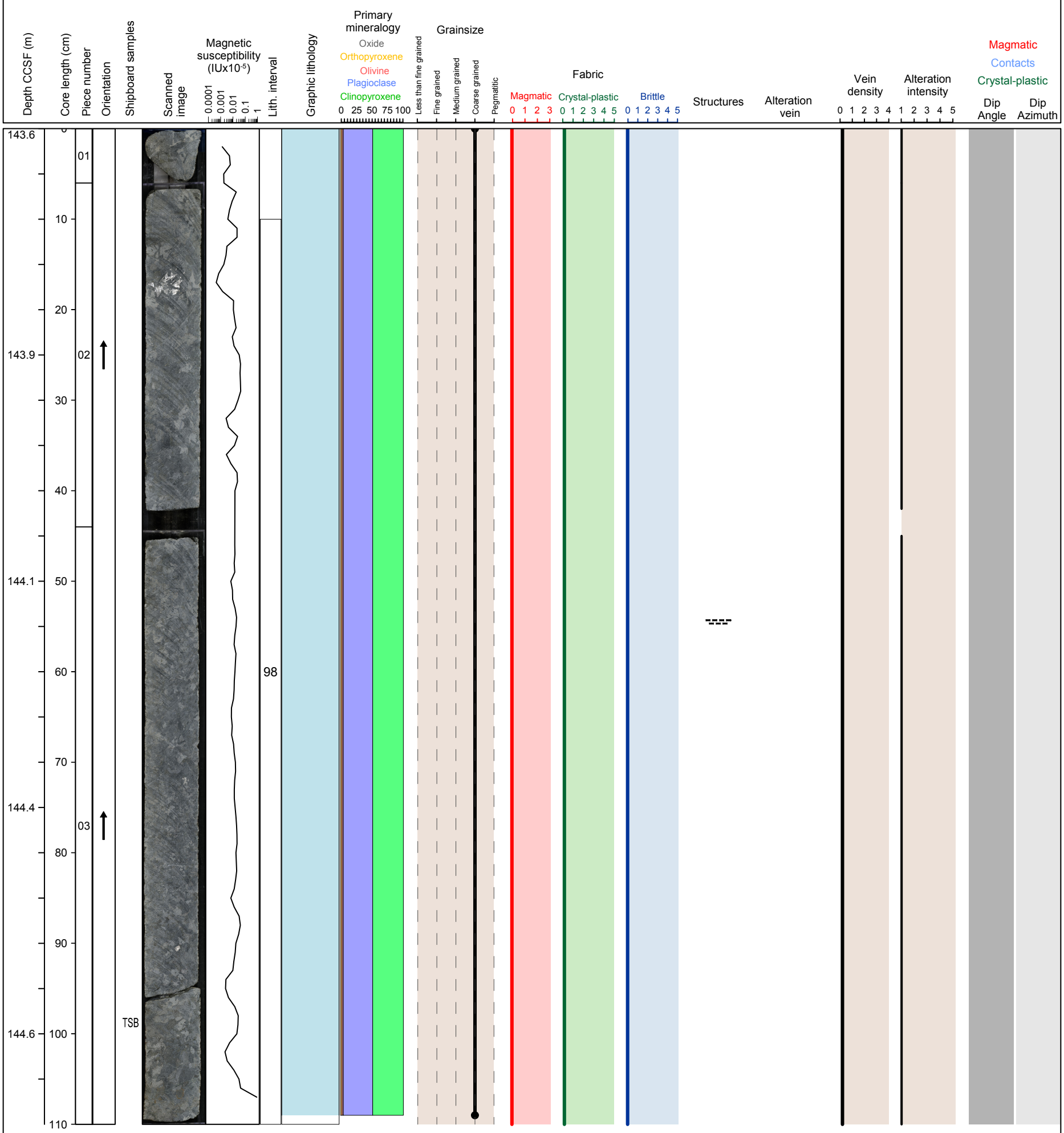


Hole 360-1105A-28R Section 1, Top of Section: 143.6 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained olivine and opx bearing gabbro (interval 98)

Metamorphic Petrology: Static background alteration inensity is slight; Alteration minerals are mainly amphibole and chlorite.

Structural Geology:

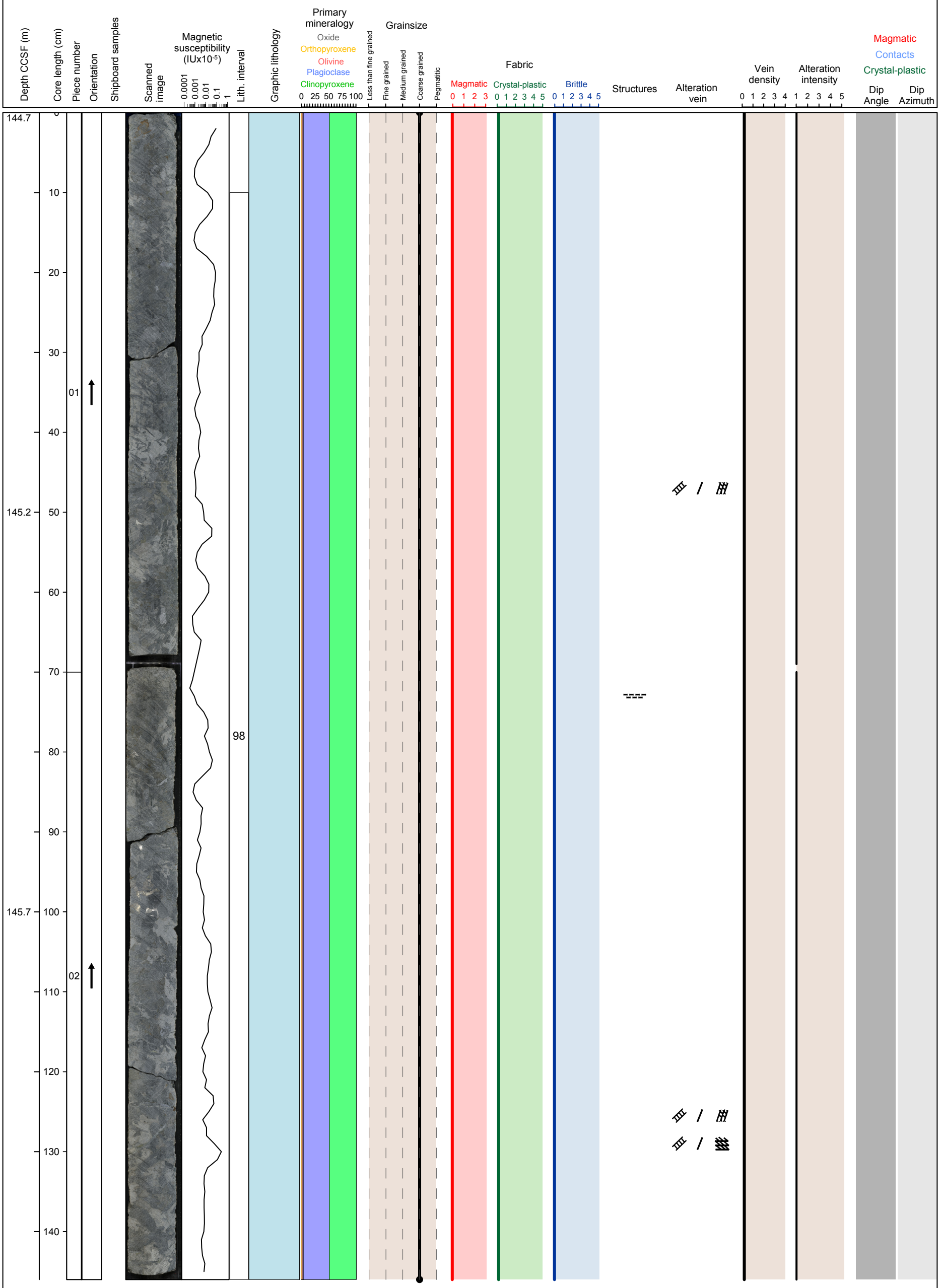


Hole 360-1105A-28R Section 2, Top of Section: 144.7 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained olivine and opx bearing gabbro (interval 98)

Metamorphic Petrology: Static background alteration intensity is slight; Alteration minerals are mainly amphibole and chlorite.

Structural Geology:

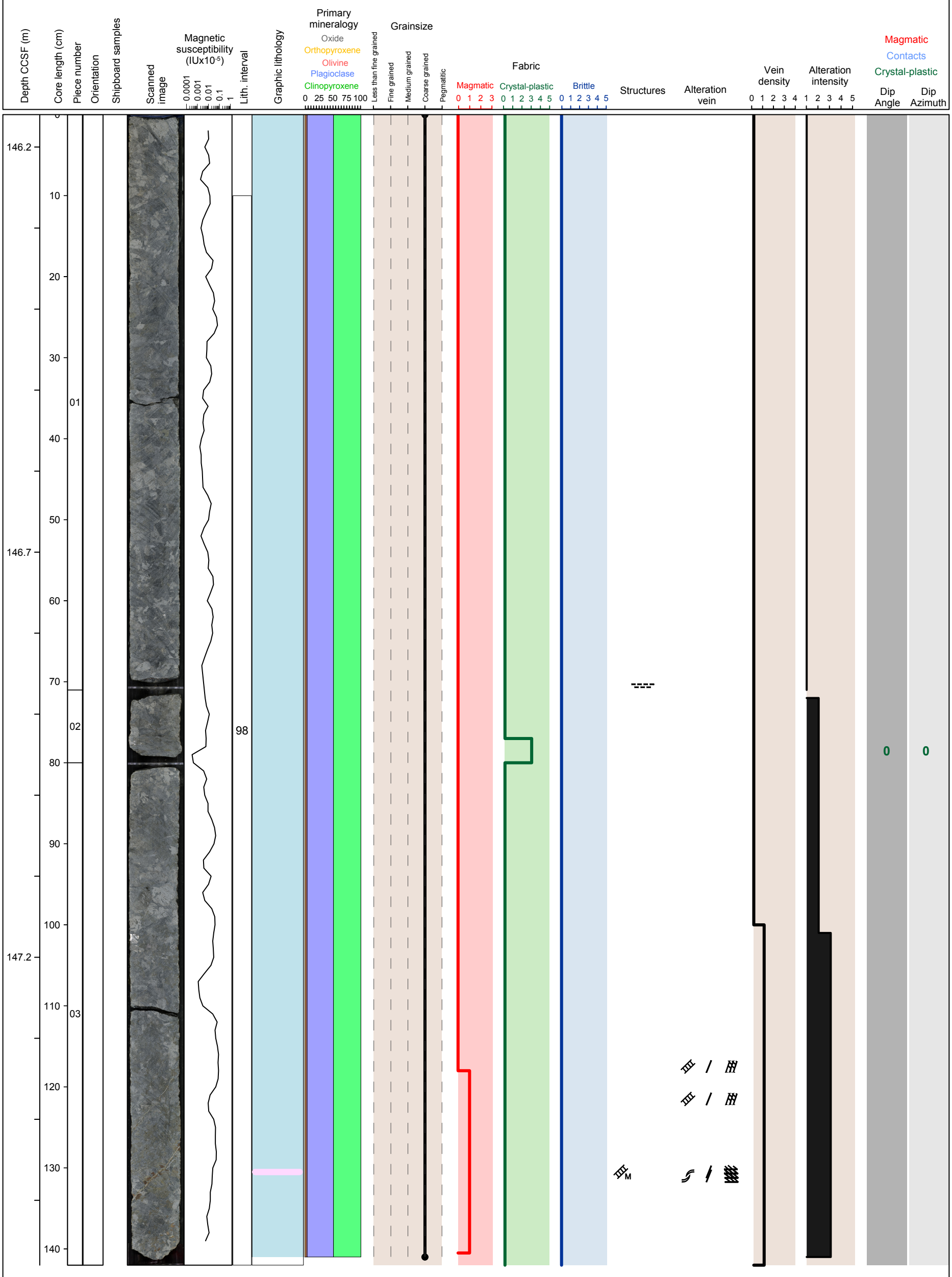


Hole 360-1105A-28R Section 3, Top of Section: 146.16 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained olivine and opx bearing gabbro (interval 98)

Metamorphic Petrology: Mylonitic zone has clinopyroxene and plagioclase porphyroclasts and neoblasts. Static background alteration intensity is slight to moderate; more intense alteration near composite veins; Alteration minerals are mainly amphibole, chlorite and clay minerals.

Structural Geology: Narrow subhorizontal shear zones. Steeply dipping alteration veins.

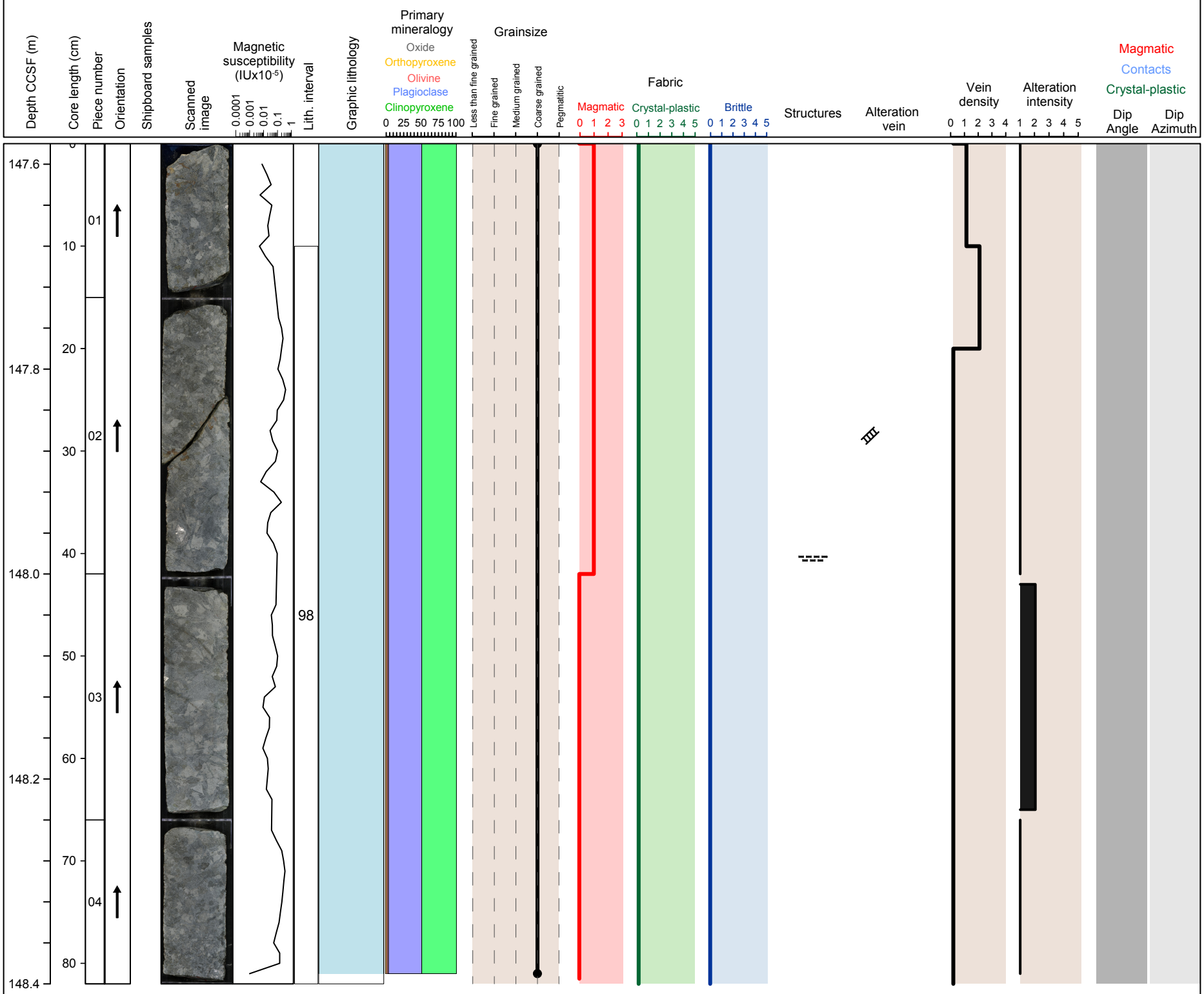


Hole 360-1105A-28R Section 4, Top of Section: 147.58 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained olivine and opx bearing gabbro (interval 98)

Metamorphic Petrology: Static background alteration intensity is slight to moderate; Alteration minerals are mainly amphibole and chlorite.

Structural Geology: Magmatic fabric defined by pyroxene.

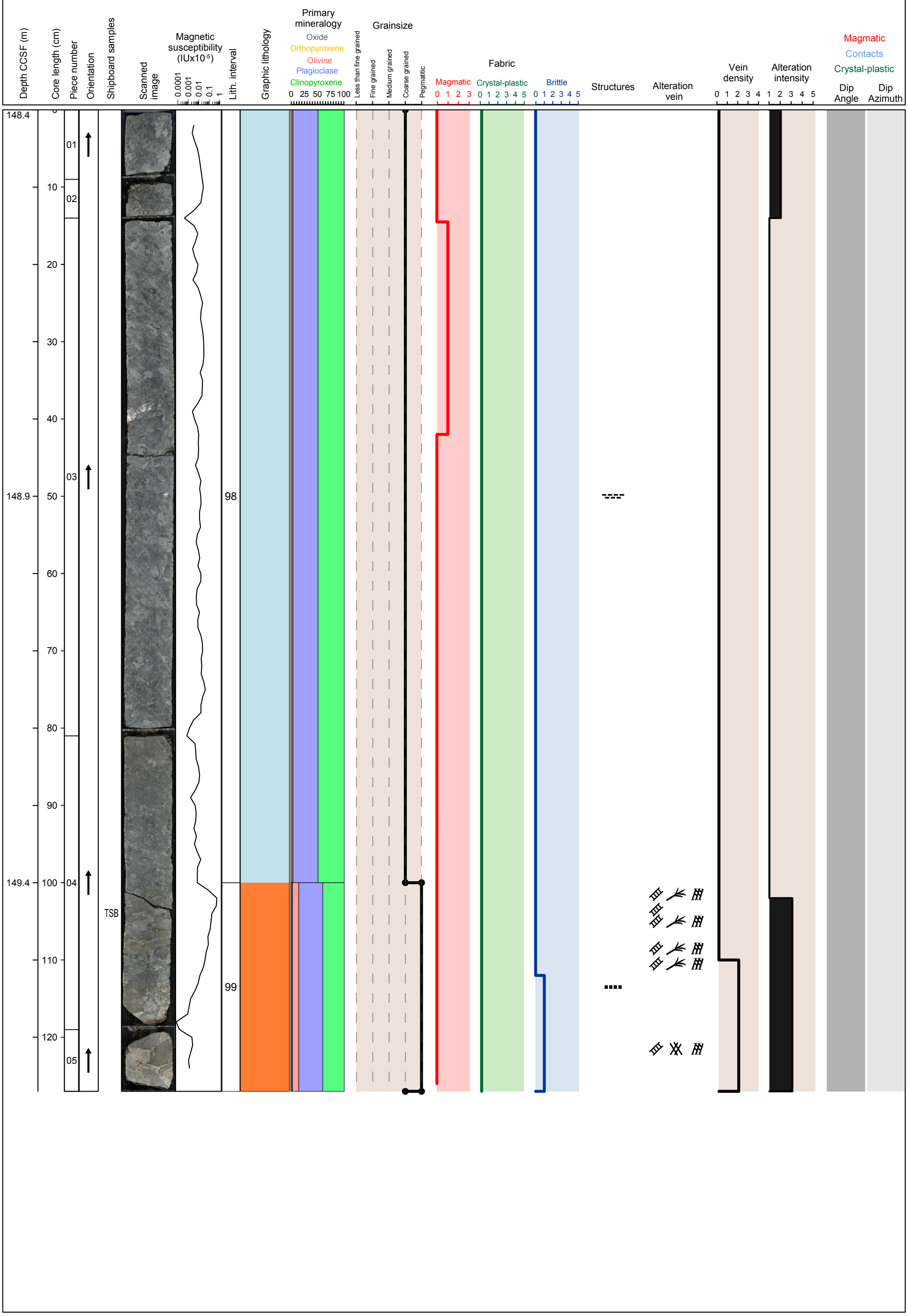


Hole 360-1105A-29R Section 1, Top of Section: 148.4 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained olivine and opx bearing gabbro (interval 98) and pegmatitic granular oxide bearing olivine gabbro (interval 99)

Metamorphic Petrology: Static background alteration intensity is slight to moderate; more intense alteration in coarse-grained rocks; Alteration minerals are mainly amphibole, chlorite and brownish clay minerals.

Structural Geology: Magmatic fabric is inclined defined by pyroxene. Magmatic breccia and veins.

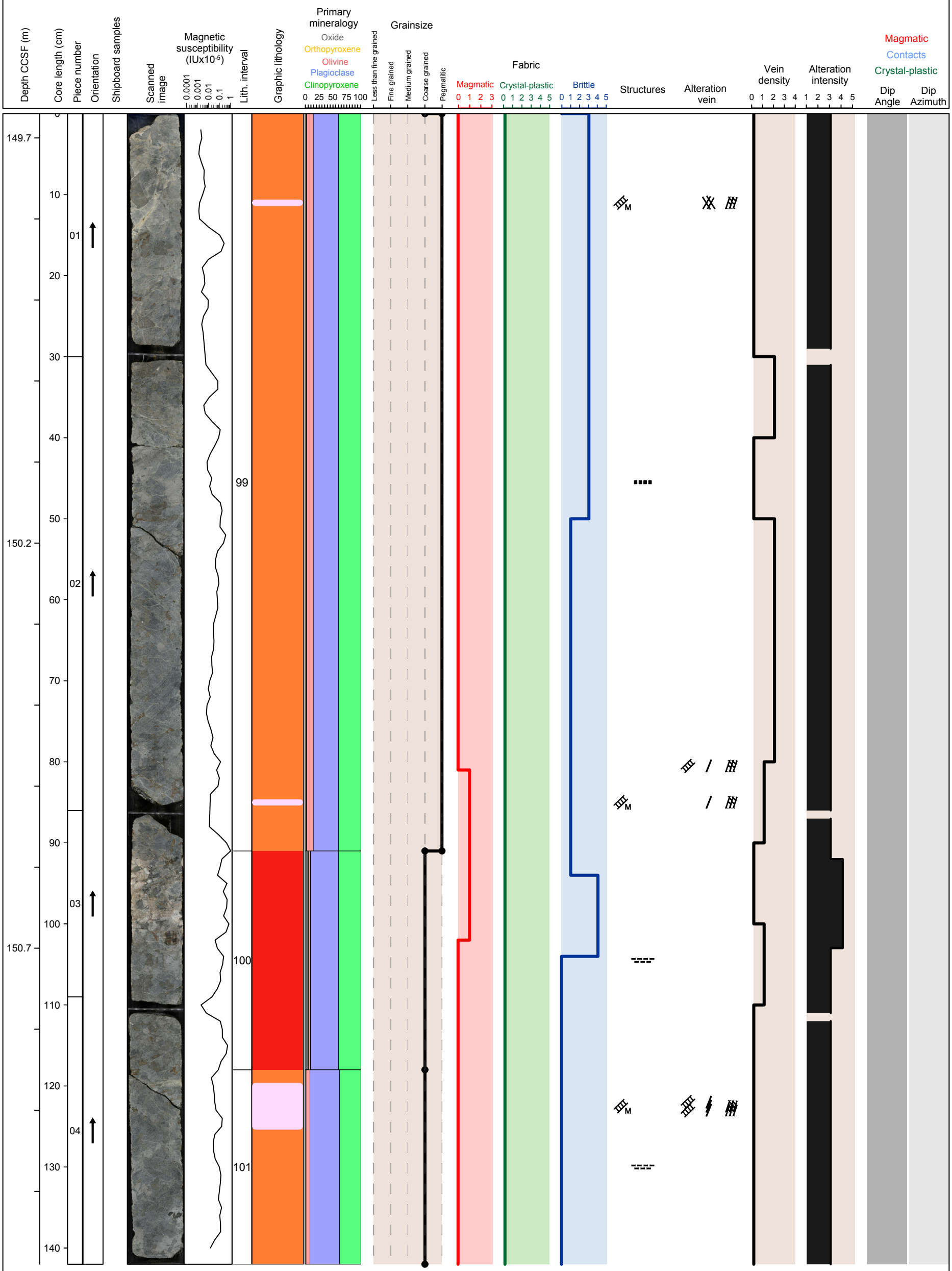


Hole 360-1105A-29R Section 2, Top of Section: 149.67 m (CCSF-179-1105-A-20151216)

Igneous Petrology: pegmatitic granular oxide bearing olivine gabbro (interval 99), coarse grained olivine bearing oxide gabbro (interval 100) and coarse grained subophitic oxide bearing olivine gabbro (interval 101) with one felsic vein

Metamorphic Petrology: Mylonitic zone has clinopyroxene, plagioclase and olivine porphyroclasts, and clinopyroxene, plagioclase and amphibole neoblasts. Static background alteration intensity is moderate and substantial; Alteration minerals are mainly amphibole, chlorite and brownish clay.

Structural Geology: Magmatic fabric defined by pyroxene. Incipient magmatic breccia in coarse grained zone. Coarse grained pyroxene fractured and filled with pyroxene and in some cases offset.

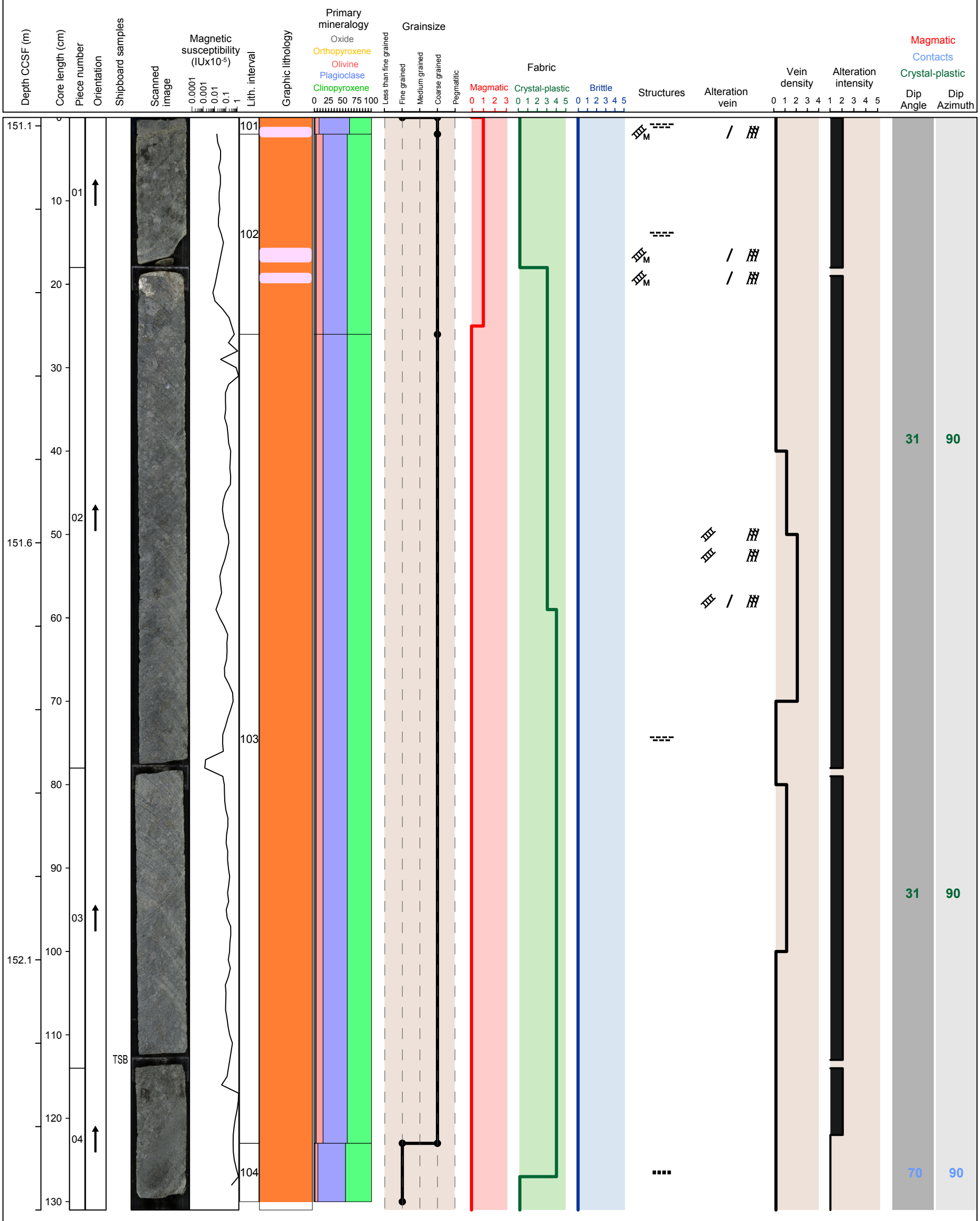


Hole 360-1105A-29R Section 3, Top of Section: 151.09 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained subophitic oxide bearing olivine gabbro (interval 101) and coarse grained granular oxide bearing olivine gabbro (intervals 102 & 103) and fine grained granular oxide bearing olivine gabbro (interval 104) with two felsic veins

Metamorphic Petrology: Mylonitic zone has clinopyroxene, olivine and plagioclase porphyroclasts, and clinopyroxene, olivine, amphibole and plagioclase neoblasts. Static backgraoung alteration intensity is moderate; Alteration minerals are mainly amphibole, chlorite and brownish clay.

Structural Geology: Oxide-rich zones with crystal plastic foliation in contact with oxide-poor zones. Magmatic fabric is defined by pyroxene.

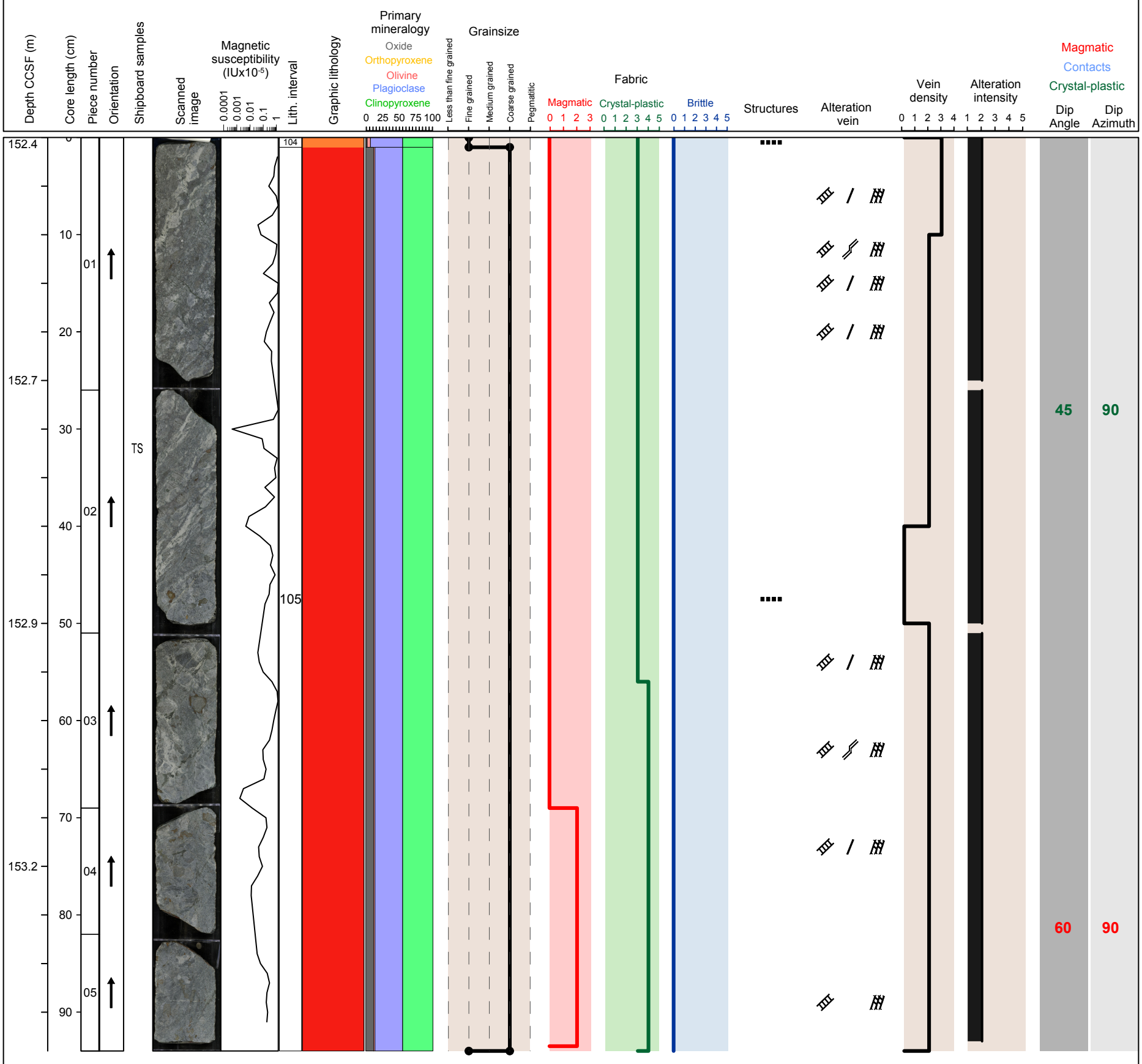


Hole 360-1105A-29R Section 4, Top of Section: 152.4 m (CCSF-179-1105-A-20151216)

Igneous Petrology: fine grained granular oxide bearing olivine gabbro (interval 104) and coarse grained granular olivine bearing oxide gabbro intruded by fine grained granular oxide bearing olivine gabbro (interval 105)

Metamorphic Petrology: Mylonitic zone has clinopyroxene, plagioclase and olivine porphyroclasts, and clinopyroxene, plagioclase and amphibole neoblasts. Static background alteration intensity is moderate; Alteration minerals are mainly amphibole, chlorite and brownish clay.

Structural Geology: Sheared contact with fine grained layer which is subvertical. Magmatic fabric defined by pyroxene.

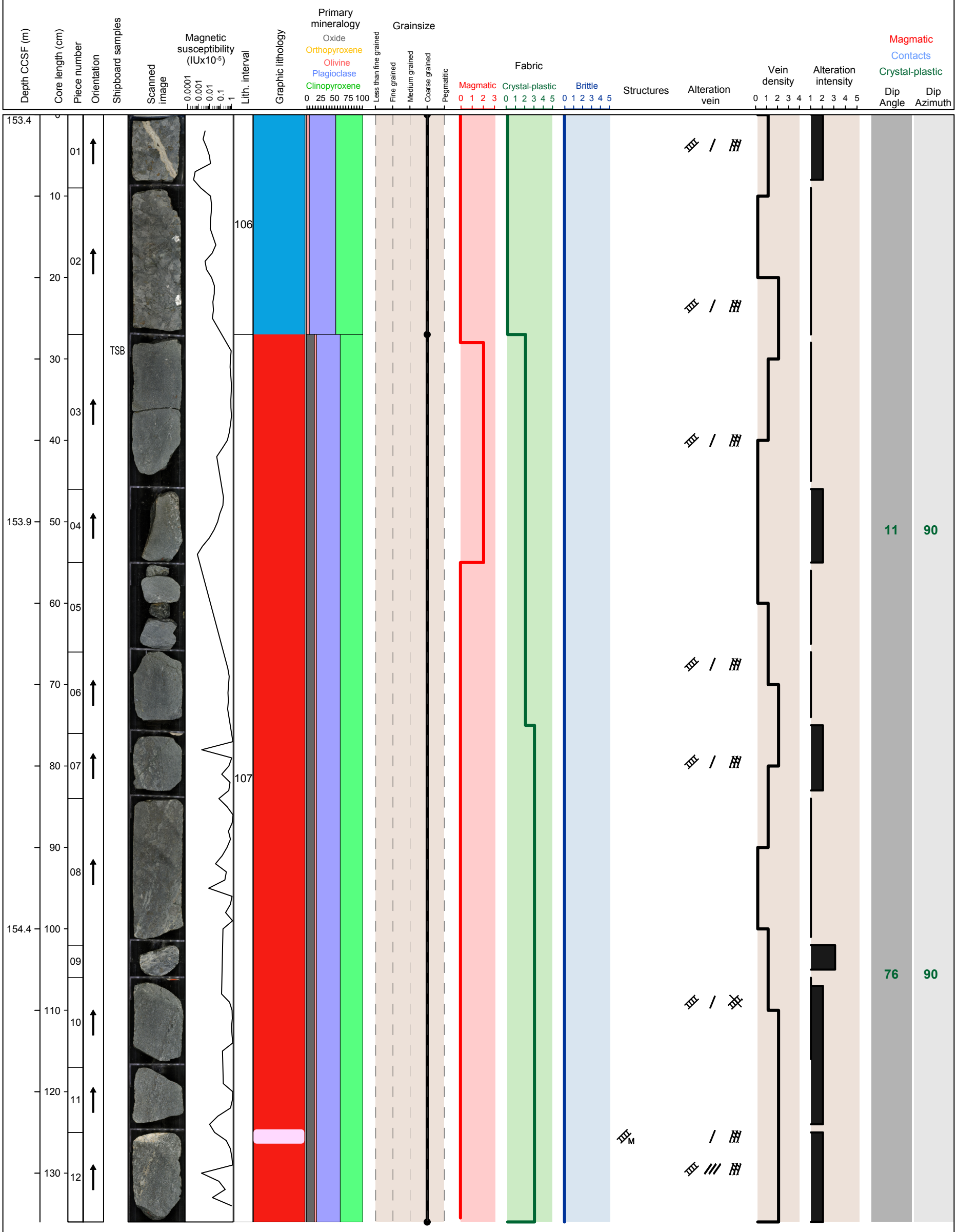


Hole 360-1105A-30R Section 1, Top of Section: 153.4 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse grained poikilitic olivine gabbro (interval 106) and coarse granular olivine bearing oxide gabbro with medium grained domain of the same lithology interval 107) with one felsic vein

Metamorphic Petrology: The top of the section is rather fresh, apart from a localized increased alteration (mainly olivine) near a carbonate vein. The rest of the section consists of rather fresh mylonites. Alteration in the mylonites is mostly localized within areas with high vein intensity.

Structural Geology: There is a subvertical igneous contact between fine and coarse grained rocks. The magmatic fabric is defined by pyroxene. Alteration veins are steeply dipping, some of which are compared of carbonate with open void space. There is a slickenside at 42 cm.

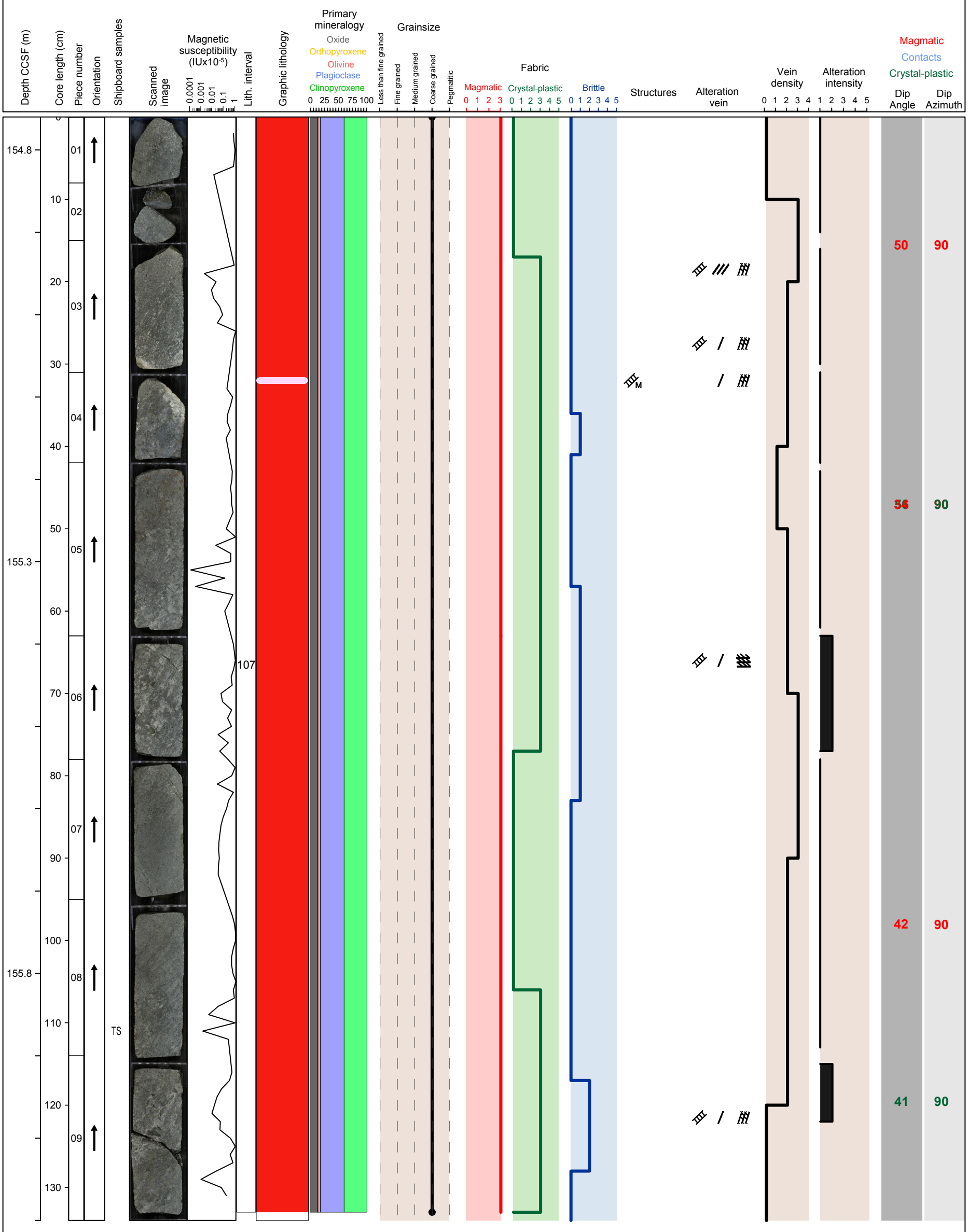


Hole 360-1105A-30R Section 2, Top of Section: 154.76 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse granular olivine bearing oxide gabbro with medium grained domain of the same lithology interval 107) with one felsic vein

Metamorphic Petrology: It consists of fresh mylonites. Alteration is only locally moderate, when the rock has a high vein intensity. Cross-cutting relationships between early amphibole and late chlorite veins are present.

Structural Geology: There is a steeply dipping, gradational igneous contact between coarse and fine grained rocks. The magmatic and crystal plastic fabric is parallel to subparallel to the contact.



Hole 360-1105A-30R Section 3, Top of Section: 156.1 m (CCSF-179-1105-A-20151216)

Igneous Petrology: coarse granular olivine bearing oxide gabbro with medium grained domain of the same lithology interval 107) and medium grained granular olivine bearing gabbro intruded by fine grained granular olivine gabbro (interval 108) with four felsic veins

Metamorphic Petrology: Fresh section with a couple of mylonitic bands, locall cross-cut by felsic veins. The felsic vein are moderately to markedly altered. Local alteration of plagioclase from the gabbros are associated with veins.

Structural Geology: There is a steeply dipping altered magmatic vein. Magmatic fabrics is defined by pyroxene and inclined.