

DRILL LOG—TAJO GRANITE, SOCORRO COUNTY, NEW MEXICO

HOLE NUMBER ARCH-1 DATE STARTED 01/17/20 COMPLETED 06/18/20 LOGGED BY HD, KAD, EH, NH, FH CORE CUTTINGS

LOCATION (NAD27) 34.05275, -106.804622 COLAR ELEVATION 5042 ft WEATHER Logged indoors

BOX NUMBER 2-63 INCLINATION 90 BEARING _____ SOP 17 DEVIATION FROM SOP All colors taken from wet core

COMMENTS Feldspar coloring always taken from the potassium feldspar

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|-------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|---|---------------------------------|--------------------------|---|------------|---------|----------------------|
| 7-13 | ~100 | Granite | 5YR 8/2 | Equigranular | <8mm | Euhedral | Slight hematization along fractures | Fracture | >6 | Qtz, feldspar, bt, fluorite, hematite? Trace uranophane, U-along fractures | Moderate 6/ft | ----- | ----- | Yes | Massive | 10 YR 8/4 |
| 14 | ~90 | Granite | 10YR 8/3 | Equigranular | <1.4 cm | Euhedral | Hematization along fractures | Fracture | >6 | Qtz, feldspar, fluorite, biotite, hematite, uranophane, U-along fractures | Intense 9/ft | ----- | Fluorite veins and uraninite, powdery U, min. massive | Yes | Massive | 7.5 YR 8/3 |
| 15-20 | ~90 | Granite | 10 YR 8/2 | Equigranular | <6mm | Euhedral | Heavy hematization along fractures | Fracture | 6.5 | Qtz, feldspar, fluorite, biotite, hematite, uranophane, trace U along fracture | Moderate 5/ft | ----- | More hematization along fracture at 19, U-over fracture | Yes | Massive | 5R 8/4 |
| 21-22 | ~95 | Granite | 10YR 7/3 | Equigranular | <10mm | Euhedral | Vuggy-weathering? Hematite along fractures and vugs | Fracture | 6..5 | Qtz, feldspar, biotite, hematite, uranophane, U-along fracture, trace fluorite | Moderate 4.5/ft | ----- | Uranium mineralization overlies fractures | Yes | Massive | 7.5 Yr 8/4 |
| 23-24 | 90 | Granite | 10YR 8/3 | Equigranular | <8mm | Subangular, Euhedral | Heavy hematization, not always in fractures | Fracture | >6 | Feldspar, qtz, iron oxide, minor biotite, minor U-bearing mineral along fracture | Moderate 7/ft | ----- | Some chloritization, one fracture weathered out, two fractures are parallel, heavy hematization | Yes | Massive | 5R 7/4 |
| 25-27 | 95 | Granite | 7.5YR 7/4 | Equigranular | <6mm | Subangular, Euhedral | Slight hematization along fractures | Fracture | <5 | Feldspar, qtz, iron oxide spotting, minor biotite, U-mineralization, chloritization | Moderate 5/ft | ----- | Fractures have hematization and U-mineral, spots of iron oxide | Yes | Massive | 7.5 YR 8/4 |
| 28-31 | 90 | Granite | 10R 8/2 | Equigranular | <7mm | Subangular, Euhedral | Slight hematization along fractures | Fracture | ~5.5 | Feldspar, qtz, iron oxide spotting, minor biotite, U-mineralization, chloritization, some powdered hematite | Moderate 6/ft | ----- | Not many veins or fractures | No | Massive | 2.5R 8/4 |

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|-------------|------------------------------------|-----------|--------------|--------------|--------------------|-------------------------|--|---------------------------|-------------------------------|---|---------------------------------|--------------------------|--|------------|---------|----------------------|
| 32 | 95 | Granite | 10R 4/8 | Equigranular | <8mm | Subangular, Euhedral | Heavily hematized | Fracture | <6.5 | Feldspar, trace biotite, trace chloritization, qtz, iron oxide | Moderate 8/ft | ----- | Many quartz veins, some with holes, offset | No | Massive | 10YR 8/6 |
| 33-35 | 95 | Granite | 2.5R 8/2 | Equigranular | <5mm | Subangular, Euhedral | Slight hematization in a few fractures | Fracture | <4 | Feldspar, qtz, minor biotite, minor chloritization | Intensely 9/ft | ----- | Depth 34 appears slightly Vuggy, highly hematized | Yes | Massive | 2.5R 8/4 |
| 36- 38.5 | ~100 | Granite | ----- | Equigranular | <12mm | Subangular, Euhedral | Hematization along most fractures | Fracture | ~5.5 | Feldspar, qtz, minor biotite, minor chloritization, veinlets of fluorite | Moderate 7.5/ft | ----- | Hematization in fractures, one has graded color change | Yes | Massive | ----- |
| 38.6- 39 | ~100 | Granite | 10R 8/2 | Equigranular | <4mm | Subangular, Euhedral | Unaltered, no hematization | Fracture | 6 | Trace biotite, trace chloritization, feldspar, qtz | Slightly 3/ft | ----- | Unaltered, lightly chloritized, hematization contact zone | Yes | Massive | 2.5R 8/4 |
| 40-44 | ~90 | Granite | 7.5R 8/4 | Equigranular | <8mm | Subangular, Euhedral | Hematization | Fracture | <3 | Trace biotite, feldspar, qtz, minor chloritization | Intensely 9/ft | ----- | Slightly chloritized, altered | Yes | Massive | 7.5YR 8/4 |
| 45-49 | ~80 | Granite | 7.5YR 8/3 | Equigranular | <8mm | Subangular, Euhedral | Intensely hematized | Fracture | <2 | Minor uranophane, minor fluorite, feldspar, qtz, trace biotite, trace chloritization | Intensely 8/ft | ----- | Heavily fractured, many small pieces/chips U in fractures, fluorite veins, rocky is soft/chalky | Yes | Massive | 2.5YR 8/2 |
| 50 | 50 | Granite | 10R 5/2 | Equigranular | <9mm | Subangular, Euhedral | Heavily hematized | Fracture | <4.5 | Trace uranophane, qtz, biotite, feldspar | Moderate 6/ft | ----- | ----- | Yes | Massive | 7.5YR 7/4 |
| 51-53 | ~95 | Granite | 2.5YR 7/4 | Equigranular | <6mm | Subangular, Euhedral | Heavy hematization along fractures | Fracture | <4.5 | Qtz, feldspar, minor biotite, minor chloritization | Slightly 3/ft | ----- | Small qtz vein, grains not as defined, hematized veins that have weathered | Yes | Massive | 2.5R 8/4 |

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|-------|------------------------------------|-----------|--------------|--------------|--|-------------------------|--|---------------------------|-------------------------------|---|---------------------------------|--------------------------|--|------------|---------|----------------------|
| 54 | ~90 | Granite | 5R 8/4 | Equigranular | <8mm | Subangular, Euhedral | Heavy hematization along fractures | Fracture | <5 | Qtz, trace uranophane, minor biotite, feldspar | Moderate 6/ft | ----- | Hematization over the U- bearing mineral | Yes | Massive | 7.5? 8/3 |
| 55 | ~85 | Granite | 7.5YR 7/3 | Equigranular | <5mm | Subangular, Euhedral | Some hematization | Fracture | 3.5 | Qtz, feldspar, biotite, trace uranium, trace chloritization, trace fluorite | Intensely 10/ft | ----- | Lots of biotite, many small grains, fracturing concentrated towards end of depth | No | Massive | 7.5YR 8/4 |
| 56-58 | ~90-95 | Granite | 10R 6/6 | Equigranular | <9mm though most are much smaller | Subangular, Euhedral | Hematization | Fracture | <3.5 | Qtz, feldspar, trace biotite, some chloritization, uranium mineral | Moderate 7/ft | ----- | Fractures, larger concentration of uranium, not as soft as in previous intervals | No | Massive | 2.5YR 7/2 |
| 59 | ~95 | Granite | 2.5YR 4/8 | Equigranular | <6mm | Subangular, Euhedral | Heavily hematized | Fracture | 4 | Uranium mineral, qtz, feldspar, trace biotite | Intensely 9/ft | ----- | Complete uranium vein in a heavily hematized sample | No | Massive | 10R 8/2 |
| 60-62 | 85 | Granite | 7.5YR 8/3 | Equigranular | <7mm | Subangular, Euhedral | Moderately hematized | Fracture | 4 | Trace uranium, minor biotite, qtz, feldspar | Moderate 6/ft | ----- | Multiple small fractures in matrix, hematization increases with depth, white powder | No | Massive | 7.5YR 8/3 |
| 63-64 | 95 | Granite | 7.5YR 8/3 | Equigranular | <5mm | Subangular, Euhedral | Lightly hematized | Fracture | <4.5 | Trace chloritization, minor biotite, feldspar, qtz | Moderate 5/ft | ----- | Core on end marks change from red-purple hematization to orange- yellow hematization | Yes | Massive | 7.5YR 7/4 |
| 65 | 90-95 | Granite | 7.5? 8/4 | Equigranular | <5mm | Subangular, Euhedral | Moderately hematized | Fracture | 4 | Minor biotite, trace chloritization, feldspar | Moderate 5/ft | ----- | Orange colored hematization primarily, orange reddish colored spots of hematization throughout | No | Massive | 7.5R 7/6 |
| 66-71 | 80-85 | Granite | 7.5YR 8/4 | Equigranular | <6mm | Subangular, Euhedral | Fractures, moderate to heavy hematization | Fracture | 4 | Qtz, biotite, plagioclase, trace uranium, trace chloritization | Intense 8/ft | ----- | Biotite prevalence fluctuates, reddish-purple hematization, many horizontal fractures | No | Massive | 5YR 7/2 |

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|-------|------------------------------------|-----------|--------------|--------------|--------------------|-------------------------|--|---------------------------|-------------------------------|---|------------------------------------|--------------------------|---|------------|---------|----------------------|
| 72-73 | 95 | Granite | 5R 8/4 | Equigranular | <4mm | Subangular, Euhedral | Fractures, moderate hematization | Fracture | <3 | Trace fluorite, qtz, plagioclase, trace biotite | Moderate 5/ft | ----- | Fluorite in veins, heavy hematization makes it difficult to see other minerals, hematization overlies fluorite | No | Massive | 5R 7/4 |
| 74-75 | 80 | Granite | 5R 8/4 | Equigranular | <5mm | Subangular, Euhedral | Fractures, heavy hematization | Fracture | <3 | Trace uranium, trace biotite, qtz, plagioclase | Moderate 6/ft | ----- | Uranium veins, small holes in some of the core, slightly Vuggy, some white chalky material | Yes | Massive | 5R 8/4 |
| 76-77 | <50 | Granite | 5R 5/4 | Equigranular | <6mm | Subangular, Euhedral | Fractures, extremely heavy hematization | Fracture | <8 | Qtz, trace biotite, plagioclase | Heavily, intensely fractured | ----- | Heavily hematized, minerals difficult to see, one shard appeared to have little to no mineralization, slightly fizzes with HCl | Yes | Massive | 10R 7/8 |
| 78-80 | ~75 | Granite | 5R 4/4 | Equigranular | <5mm | Subangular, Euhedral | Hematization, fractures | Fracture | <3 | Trace fluorite, trace biotite, qtz, plagioclase, trace uranium, trace chloritization | Intensely 10/ft | ----- | Qtz/fluorite veins, soft, highly fractured but little uranium | No | Massive | 2.5YR 8/2 |
| 81-83 | 80 | Granite | 5YR 8/2 | Equigranular | <5mm | Subangular, Euhedral | Slightly weathered with hematization | Fracture | <4 | Qtz, feldspar, uranophane, minor biotite, minor fluorite | Intense to moderate fracture | ----- | None | Yes | Massive | 10R 8/2 |
| 84-87 | 85 | Granite | 5YR 5/8 | Equigranular | <10mm | Subangular, Euhedral | Moderate hematization | Fracture | <4 | Qtz, feldspar, chlorite, minor biotite | Intensely fractured | ----- | None | No | Massive | 7.5YR 7/4 |
| 88-89 | 85 | Granite | 10YR 7/3 | Equigranular | <5mm | Subangular, Euhedral | Strong hematization | Fracture | 4 | Qtz, feldspar, minor chlorite, minor biotite, minor uranophane | Intense to moderate fracture | ----- | Great hematization than previous | No | Massive | 5YR 8/2 |
| 90-91 | 90 | Granite | 7.5YR 8/4 | Equigranular | <8mm | Subangular, Euhedral | Minor hematization in fracture and in veins | Fracture | 4.5 | Qtz, feldspar, minor biotite, minor chloritization | Moderate 7/ft | ----- | Some veins with hematization, otherwise orange and spotty, decreases with depth | No | Massive | 10R 8/2 |

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|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|--|---------------------------|---|--|---------------------------------|--------------------------|--|------------|---------|----------------------|
| 92-96 | 85-90 | Granite | 7.5YR 8/3 | Equigranular | <6mm | Subangular, Euhedral | Minor hematization throughout, spotty isolated areas along fractures | Fracture | 5.5 | Qtz, feldspar, trace biotite, minor uranium, trace chloritization | Moderate 6/ft | ----- | Large, fine-grained vein with no crystal faces throughout 96-97, slightly green when wet with hardness 4.5 | Yes | Massive | 10R 8/4 |
| 97-98 | 80 | Granite | 5YR 6/8 | Equigranular | <5mm | Subangular, Euhedral | Heavy hematization, orange-yellow with trace dark red, some veins | Fracture | <5.5, but the heavily hematized is soft, around 3 | Qtz, feldspar, trace muscovite, minor biotite, trace uranium, trace chloritization, white powder | Intensely, especially 98 12/ft | ----- | Marks end of previously holed vein, shows boundary between light to heavy orange-red hematization | No | Massive | 2.5R 8/4 |
| 99-100 | 95 | Granite | 7.5YR 8/3 | Equigranular | <5mm | Subangular, Euhedral | Minor to moderate hematization, moderate around 100 mark | Fracture | 5.5 | Minor uranium, trace biotite, plagioclase, feldspar, qtz | Moderate 7/ft | ----- | Uranium in small veins | No | Massive | 10R 8/5 |
| 101-102 | 70-75 | Granite | 5R 8/4 | Equigranular | <8mm | Subangular, Euhedral | Moderate hematization bordering on intense | Fracture | 6 | Feldspar, qtz, trace biotite, trace muscovite, trace uranium, white powder | Very intense 13/ft | ----- | Very heavily fractured, white powder on some of fractures, uranium around 101-102 mark, has some chloritization near white powder when not obscured, some veins of hematization, usually small-1mm across to 20mm long, uranium concentrated along fractures with one small vein | Yes | Massive | 10R 7/8 |
| 103-104 | 95 | Granite | 5YR 8/2 | Equigranular | <7mm | Subangular, Euhedral | Moderately hematized | Fracture | 5.5 | Feldspar, qtz, minor chlorite, minor biotite, trace uranium | Moderate 7/ft | ----- | Large vein, 5mm thick, spanning entire interval with no crystal faces, light gray with some red, can also be slightly green, hematization along edges, fracture cuts across near end of 104 that has uranium mineralization in it, also has fracture of same material meeting at 35° angle | No | Massive | 5R 8/4 |
| 105-106 | 85-90 | Granite | 2.5YR 8/2 | Equigranular | <8mm | Subangular, Euhedral | Moderately to heavily hematized | Fracture | 5.5 | Feldspar, qtz, trace biotite, uranium along fractures and with hematization, minor white powder | Intense 10/ft | ----- | U-mineral occurs along hematization, can appear in small balls | No | Massive | 5R 8/4 |

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|---------|-------|---------|-----------|--------------|------|----------------------|--|----------|-----|--|------------------------------------|-------|--|----|---------|----------|
| 107-108 | 80-85 | Granite | 7.5YR 8/3 | Equigranular | <7mm | Subangular, Euhedral | Heavy hematization in 107, lessens to moderate for 108 | Fracture | 5.5 | Feldspar, qtz, trace biotite, trace muscovite, minor U-mineral along fractures, minor white powder | Intense, difficult to count ~14/ft | ----- | Vein mentioned above is at start of 107, 107 has many small rock chips, is also redder and more orange than 108 | No | Massive | 2.5R 8/2 |
| 110* | 85 | Granite | 10YR 8/3 | Equigranular | <5mm | Subangular, Euhedral | Minor to moderate hematization along fractures, some veins | Fracture | 6.5 | Qtz, feldspar, trace biotite, minor U-mineral, black mineral (not biotite) | Moderate 8/ft | ----- | Black mineral not scratched by knife, no luster, in a ring around plagioclase, veins of hematization, some of the plagioclase is only half hematized | No | Massive | 10YR 8/4 |

*According to the convention used up until this point, the drill core depth corresponds to the number on the wooden block, and that depth is after the block. Keeping this convention, box 12 ended with block 109, but box 13 begins with block 110. By this convention, depth 109 is missing.

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|---------|-----------------------------|-----------|----------------------------------|--------------|-----------------|----------------------|--|------------------------|-------------------------|---|--|-----------------------|---|------------|---------|-------------------|
| 111-118 | 85% | Granite | 2.5YR 7/8 | Equigranular | <8mm | Subangular, Euhedral | Moderate to heavy hematization in layers, generally increases with depth | Fracture | 5 | Trace biotite, plag, qtz, minor U-mineral, trace fluorite, often occurs in a group | Moderate 7/ft | ----- | Hematization increases with depth, often obscures minerals | No | Massive | 7.5R 8/2 |
| 119 | 90% | Granite | 10YR 8/2 (unhematized areas) | Equigranular | <5mm | Subangular, Euhedral | Minor to heavy, 3 transitions, decreases with depth | Fracture | 5.5 | Qtz vein with U-mineral over it, plag, trace biotite, trace chloritization, trace muscovite | Intense, some small chips >11/ft | ----- | Contains 3 hematized transitions | No | Massive | 10R 8/4 |
| 120 | 70% | Granite | 7.5YR 8/3 | Equigranular | <5mm | Subangular, Euhedral | Little to no hematization, rust colored spots | Fracture | 5 | U-mineral, qtz, feldspar, trace biotite, trace chloritization, trace fluorite in one vein | Intense 11/ft | ----- | Fluorite vein offset 3mm by plag and U-mineral, uranium seems to be decreasing even though fractures are increasing | No | Massive | 7.5R 7/6 |
| 121-122 | 75% | Granite | 10YR 8/2 | Equigranular | <5mm | Subangular, Euhedral | Moderate hematization that decreases with depth, often obscures mineralogy | Fracture | 6 | Trace fluorite, trace U-mineral, feldspar, qtz, trace biotite | Some chips >14/ft | ----- | One of the longer pieces of core displays hematization banding, small fluorite vein 1mm by 8mm, some parts crumble in hand, U-mineral concentrated along less hematized areas | No | Massive | 10R 8/4 |
| 123-126 | 50% | Granite | 10R 6/8 Color heavy hematization | Equigranular | 1mm | Subangular, Euhedral | Heavily hematized, decreases with depth | Fracture | 5 | Feldspar, qtz, fluorite | Uncountable, highly fractured, many chips/small pieces | ----- | Begins with heavy hematization, decreases with depth, small, thick fluorite veins | No | Massive | ?? 7/6 |

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|------------|-----|---------|---------------------------|--------------|-----|----------------------|---|----------|---|--|---|-------|---|-----|---------|-----------|
| 127-128 | 45% | Granite | 2.5YR 8/4 | Equigranular | 1mm | Subangular, Euhedral | Heavily hematized and fractured, decreases with depth | Fracture | 4 | Trace fluorite, trace muscovite, qtz, feldspar | Uncountable, highly fractured and broken, many pieces, comes apart in hands | ----- | Difficult to see minerals, white, white, soft, powder | No | Massive | 10R 6/4 |
| 129-130 | 65% | Granite | ??R 4/4 | Equigranular | 1mm | Subangular, Euhedral | Heavily hematized, pinkish red | Fracture | 5 | Hematite, biotite, qtz, uraninite | Uncountable, many rock fragments for 129, 130 has 13 fractures/ft | ----- | High hematized, fractures decrease with depth, rock fragments decrease, color lightens, heavily hematized areas are around 3 in hardness, dendritic pattern on edge of core 129 | No | Massive | 2.5YR 6/2 |
| 131 | 80% | Granite | 7.5YR 4/4 Hematized color | Equigranular | 1mm | Subangular, Euhedral | Heavily hematized | Fracture | 3 | Hematite, qtz, fluorite | Some rock fragments >10/ft | ----- | Fluorite changed colors, purple to black purple, overlain by very soft, thin, fractured white mineral. Veins of hematization, one small one around 1mm thick cuts fluorite, fluorite major constituent, thickness of the veins vary | Yes | Massive | 5R 6/1 |

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|----------------|-----------------------------|-----------|-----------|--------------|-----------------|----------------------|--|------------------------|---|---|----------------------------------|-----------------------|--|------------|---------|-------------------|
| 132-133 | 55% | Granite | 7.5YR 7/2 | Equigranular | .5mm | Subangular, Euhedral | Heavily hematized | Fracture | 2 for heavily hematized areas, 5 for less hematized areas | Qtz, trace uraninite, hematite | Uncountable, many rock fragments | ----- | Mineralogy obscured by hematization in many places, some fragments have vugs, crumble in hand | Yes | Massive | ----- |
| 136-137 | 90% | Granite | 7.5YR 5/8 | Equigranular | 1mm | Subangular, Euhedral | Highly hematized, one color transition to orange-red around 137-138 border | Fracture | 4 | Biotite, chlorite, hematite, qtz | Uncountable, many rock fragments | ----- | Plates of hematization that core broke along, unbroken qtz vein | No | Massive | ----- |
| 138-139 | 95% | Granite | 5R 7/4 | Equigranular | <8mm | Subangular, Euhedral | Light to moderate hematization, decreases with depth | Fracture | 7 | Trace biotite, qtz, feldspar, trace chloritization, trace U-mineral | Moderate 6/ft | ----- | Hematization vein paralleled by a light green-gray vein, green-gray veins cuts across hematization in two different areas, offset hematization in one area | No | Massive | 5R 7/4 |

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|---------|-----|---------|--------------|--------------|-------|----------------------|---|----------|-------|--|--------------------------------------|-------|---|-----|---------|-------------|
| 140 | 75% | Granite | 10R 6/8 | Equigranular | <3mm | Subangular, euhedral | Heavily hematized, obscures minerals | Fracture | 4 | Trace U-mineral, feldspar, qtz, trace biotite, trace fluorite | Intense, some chips 12/ft | ----- | U-mineral over hematization, some greenish-gray light blue plate-like covering | No | Massive | 10R 7/8 |
| 141-142 | 85% | Granite | 10R 7/6 | Equigranular | <4mm | Subangular, euhedral | Minor to moderate hematization with a few heavily hematized faces | Fracture | 5 | Trace biotite, qtz, plag, trace fluorite, white powder along heavily hematized faces | Moderate 8/ft | ----- | Variable hematization, 2-3 fluorite veins | No | Massive | 10YR 7/3 |
| 143-145 | 60% | Granite | 2.5YR 4/8 | Equigranular | <3mm | Subangular, euhedral | Heavily hematized | Fracture | 4 | Trace U-minerals, trace fluorite, qtz, minor white powder | Intense, uncountable | ----- | No ksp, obscured by hematization, some hematization in areas displayed a low-level luster | No | Massive | ----- |
| 146 | 75% | Granite | 7.5YR 7/3 | Equigranular | <6mm | Subangular, euhedral | Moderate to intense | Fracture | 3.5 | Trace U-mineral on border of 145-146, feldspar, qtz, trace biotite, trace fluorite, trace chloritization | Moderate 5/ft | ----- | Singular fluorite vein spider-webbed with hematite. Multiple qtz veins. Dark gray qtz vein in middle with hematization around edges that is surrounded by white qtz. Some areas slightly vuggy or have cavities | Yes | Massive | 10R 7/4 |
| 147-150 | 90% | Granite | 10YR 8/8 | Equigranular | <5mm | Subangular, euhedral | Heavy hematization along faces of slanted fractures, none along flat breaks | Fracture | 7 | Trace U, k-spar, biotite | Very intensely to intensely 12/ft | ----- | Slight weathering, slight hematization of fractures | No | Massive | 5YR 7/8 |
| 151-153 | 70% | Granite | 2.5YR 4/8 | Equigranular | <7mm | Subangular, euhedral | Extreme hematization | Fracture | ----- | Hematized qtz, ksp, biotite, trace U | Intense to very intense 11/ft | ----- | Sharp alteration contacts | Yes | Massive | 10YR 8/1 |
| 154-155 | 80% | Granite | ----- | Equigranular | <4mm | Subangular, euhedral | Moderate hematization, highly weathered | Fracture | 6 | Qtz, ksp, chlorite | Intensely fractured 8/ft | ----- | Stratified, brittle structure at 155 | Yes | Massive | ----- |
| 156 | 95% | Granite | 10R 6/6 | Equigranular | ----- | Subangular, euhedral | Heavily hematized | Fracture | 4 | Many minerals obscured by hematization, black mineral, no luster, hardness 7, white powder | Moderate 7/ft | ----- | Plate-like texture that is not dictated by hematization or mineralogy, overlapping plates in slanted structure, core breaks along plates indicated by gaps, structure never seen before, grains within the slanted structures that are elongated parallel to the plates | Yes | Massive | ----- |

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|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|--|---------------------------------|--------------------------|---|------------|---------|----------------------|
| 157-160 | 80% | Granite | 10YR 7/8 | Equigranular | <5mm | Subangular, euhedral | Moderate to heavy hematization, heavy along slanted fractures | Fracture | 6.5 | Qtz, feldspar, trace biotite, trace chloritization, white powder | Intense 9/ft | ----- | One piece has veins of feldspar that is partially hematized | No | Massive | 2.5R 8/4 |
| 161-162 | 85% | Granite | 10YR 7/8 | Equigranular | <5mm | Subangular, euhedral | Moderate to heavy along slanted fractures | Fracture | 7 | Qtz, feldspar, trace biotite, trace chloritization | Moderate 7/ft | ----- | Unusually large ~10mm plagioclase crystals | No | Massive | 2.5R 8/4 |
| 163-164 | 90% | Granite | 7.5R 7/6 | Equigranular | <6mm | Subangular, euhedral | Hematization decreases with depth, moderate | Fracture | 8 | Qtz, feldspar, trace biotite, trace U-mineral, mineral with dull luster, black, slightly platy, appears to be the same as the one mentioned in 156 | Moderate 6/ft | ----- | Plate-like fragile hematization layer overlying some of the mineralogy, contains some crystals possibly quartz | Yes | Massive | 10R 8/4 |
| 165 | 90% | Granite | 5R 7/4 | Equigranular | <5mm | Subangular, euhedral | Heavy hematization that decreases slightly with depth | Fracture | 5 | Trace biotite, minor feldspar, quartz, iron oxides likely, white powder, minor chloritization, hematized quartz | Intense 11/ft | ----- | Alternating veins of hematization with varying levels of extent | No | Massive | 5R 7/4 |
| 166 | 95% | Granite | 5R 7/4 | Equigranular | <6mm | Subangular, euhedral | Heavy hematization along slanted fractures, little to none on outside of core | Fracture | 4 | Qtz, trace biotite, trace chloritization, feldspar, white powder | Moderate 6/ft | ----- | Qtz still hematized | No | Massive | 2.5R 8/4 |
| 167-169 | 90% | Granite | 7.5YR 7/4 | Equigranular | <6mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7 | Trace U-mineral, trace biotite, trace chloritization, feldspar, quartz, trace fluorite | Intense 8/ft | ----- | Fluorite not in vein, one vein of heavy hematization, quartz larger and elongated compared to other sections | No | Massive | 2.5R 8/4 |
| 170-171 | 95% | Granite | 2.5R 7/4 | Equigranular | <5mm | Subangular, euhedral | Heavy hematization along fractures, little along outside of core | Fracture | 4 | Trace biotite, trace chloritization, feldspar, quartz, white powder | Intense 9/ft | ----- | Hematization increases with depth | No | Massive | 5R 8/4 |
| 172-173 | 90% | Granite | 7.5R 3/6 | Equigranular | <4mm | Subangular, euhedral | Heavy hematization, most of the plagioclase altered | Fracture | 4 | Trace biotite, quartz, trace U-mineralization, trace chloritization, most plagioclase altered, flat dark mineral with silky luster and hardness of 3.5, trace fluorite | Moderate 6/ft | ----- | Dark red dominant hematization, black mineral occurs along exposed faces in thin covering, small cluster of fluorite between two quartz veins, few fractures for degree of hematization | No | Massive | ----- |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|--|---------------------------------|--------------------------|--|------------|---------|----------------------|
| 174 | 30% | Granite | 7.5R 6/6 | Equigranular | <4mm | Subangular, euhedral | Heavily hematized, increases with depth | Fracture | 4 | Qtz, trace biotite, U-mineral, feldspar | Uncountable, many pieces | ----- | Sharp contact between core and yellow-orange powdery material that is scratched by fingernail, some individual pieces of that orange stuff | Yes | Massive | ----- |
| 175-179 | 85% | Granite | 5R 7/4 | Equigranular | <3mm | Subangular, euhedral | Minor hematization to moderate along slanted fractures, increases slightly with depth | Fracture | 4 | Trace biotite, trace chloritization, feldspar, qtz, trace U-mineral, trace fluorite in blobs, small spot of previously noted (156) black mineral | Moderate 8/ft | ----- | Anomalous blob of iron oxide (black mineral) surrounded by U-mineral, little to no hematization on outside of core | No | Massive | 2.5R 7/4 |
| 180-183 | 80% | Granite | 10R 7/4 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy along slanted fractures | Fracture | 7 | Feldspar, qtz, trace biotite, trace chloritization, fluorite, trace U-mineral | Moderate 6/ft | ----- | Multiple large fluorite veins | No | Massive | 10R 8/4 |
| 184-186 | 85% | Granite | 5R 7/4 | Equigranular | <3mm | Subangular, euhedral | Heavily hematized | Fracture | 4 | Feldspar, biotite, qtz, minor chloritization, trace U-mineral | Moderate 8/ft | ----- | Vuggy in areas, little to no crystals in veins, can have qtz | No | Massive | 10R 8/2 |
| 187-189 | 90% | Granite | 5YR 6/8 | Equigranular | <5mm | Subangular, euhedral | Light to moderate hematization, decreases with depth | Fracture | 4 | Minor biotite, qtz, feldspar, trace U-mineral along slanted fractures | Intense 9/ft | ----- | U-mineralization often concentrated with areas of higher hematization, fractures increase with depth | No | Massive | 7.5YR 8/4 |
| 190-191 | 85% | Granite | 7.5YR 8/3 | Equigranular | <4mm | Subangular, euhedral | Moderately hematized with depth 191 being heavy hematized | Fracture | 5 | Minor biotite, feldspar, qtz, trace chloritization, trace U-mineral | Intense 10/ft | ----- | Fractures with hematite | No | Massive | 10R 8/4 |
| 192-194 | 85% | Granite | 5R 7/4 | Equigranular | <4mm | Subangular, euhedral | Heavily hematized along slanted fractures, light to no hematization elsewhere | Fracture | 4.5 | Biotite, feldspar, qtz, U-mineral, minor chloritization, white powder | Intense 10/ft | ----- | 192 contains sharp contact between hematization and U-mineral | No | Massive | 5R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|--|---|--------------------------|---|------------|---------|----------------------|
| 195-199 | 60% | Granite | 7.5YR 7/2 | Equigranular | <6mm | Subangular, euhedral | Small areas of minor hematization | Fracture | 6 | Trace fluorite, minor U-mineral, qtz, feldspar, trace biotite, trace chloritization | Intense, uncountable in one area >10/ft | ----- | Small, thick fluorite vein, drill core appears to be sliced in half, fracture intensity decreases with depth | No | Massive | 10R 8/4 |
| 200-201 | 40% | Granite | 7.5YR 8/3 | Equigranular | <6mm | Subangular, euhedral | Little to no hematization, increases slightly with depth, one vein in 200 | Fracture | 6 | Trace biotite, trace chloritization, qtz, feldspar, trace U-mineral | Moderate 8/ft | ----- | Heavy hematization towards end, drill core appears to be cut in half, grain size slightly bigger than normal consistently | No | Massive | 10R 8/4 |
| 202-204 | 75% | Granite | 10YR 8/3 | Equigranular | <5mm | Subangular, euhedral | Heavily hematized along most slanted fractures, heavy at end of depth 203 | Fracture | 4.5 | Minor biotite, qtz, feldspar, trace chloritization, trace U-mineral, white powder | One portion has many fractures Average 8/ft | ----- | Some portions heavily hematized | No | Massive | 7.5YR 8/3 |
| 205 | 35% | Granite | 10YR 8/3 | Equigranular | <3mm | Subangular, euhedral | Little hematization | Fracture | 6.5 | Qtz, feldspar, trace biotite, trace chloritization, white powder, trace U-mineral, minor fluorite | Uncountable | ----- | Highly fractured and chipped, gray-purple covering that obscures minerals, fluorite veins | Yes | Massive | 10R 8/4 |
| 206 | 85% | Granite | 10YR 7/4 | Equigranular | <4mm | Subangular, euhedral | Moderate hematization, decreases with depth | Fracture | 5 | Trace biotite, trace chloritization, qtz, feldspar, minor U-mineral, trace fluorite not in veins, white powder | Moderate 6/ft | ----- | Fracture of unknown mineral, and of hematization around it that increases in severity of hematization, vein of U-mineral | No | Massive | 2.5R 8/7 |
| 207-208 | 85% | Granite | 7.5YR 7/4 | Equigranular | <6mm | Subangular, euhedral | Little hematization except for one area of heavy, small veins with increases depth | Fracture | 5 | Trace biotite, trace chloritization, feldspar, qtz, trace U-mineral along small hematization veins | Moderate (not counting small, highly fractured area) 6/ft | ----- | Small, localized, concentrated area of hematization, highly fractured in that area | No | Massive | 2.5R 8/4 |
| 209-210 | 80% | Granite | 7.5YR 6/4 | Equigranular | <3mm | Subangular, euhedral | Heavily hematized along slanted fractures | Fracture | 7 | Trace biotite, trace chloritization, feldspar, qtz, white powder | Intense, 210 more fractured than 9/ft >9/ft | ----- | Dark red hematization, purple-gray plate present in 210, some hematization veins | No | Massive | 2.5R 8/4 |
| 211-215 | 85% | Granite | 2.5YR 7/6 | Equigranular | <5m | Subangular, euhedral | Heavily hematized along certain faces and in veins, spotty orange in other areas | Fracture | 6 | Trace fluorite, minor U-mineral, feldspar, qtz, trace biotite, trace chloritization | Intense, some chips in specific areas >10/ft | ----- | Heavy hematization along certain faces, little to none elsewhere, U-mineralization often associated with hematization | No | Massive | 5R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|--|---------------------------------------|--------------------------|--|------------|---------|----------------------|
| 216-217 | 50% | Granite | 5R 7/4 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy along some faces, a few veins | Fracture | 5.5 | Fluorite, qtz, feldspar, trace biotite, trace chloritization, trace U-mineral | Intense 9/ft | ----- | Large fluorite vein, hematization occurs over and around fluorite | Yes | Massive | 2.5R 8/4 |
| 218-219 | 80% | Granite | 5YR 7/2 | Equigranular | <4mm | Subangular, euhedral | Light hematization throughout, heavy in one area | Fracture | 6.5 | Minor U-mineral in 218, trace biotite, feldspar, qtz, trace fluorite in 218, minor chloritization | Intense 9/ft | ----- | Minerals not well defined in many areas | No | Massive | 2.5R 8/4 |
| 220-222 | 95% | Granite | 5R 7/4 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization, some veins | Fracture | 6.5 | Trace U-mineral, minor chloritization, trace biotite, feldspar, qtz | Moderate 8/ft | ----- | Some of the faces are smooth with obscured mineralogy, U-mineral occurs with hematization | No | Massive | 2.5R 8/4 |
| 223-226 | 90% | Granite | 7.5YR 8/4 | Equigranular | <6mm | Subangular, euhedral | Moderate hematization along faces and in some veins | Fracture | 5 | Trace U-mineral, trace black mineral, trace biotite, qtz, feldspar, trace chloritization, white powder | Moderate 8/ft | ----- | Mineralogy obscured along some faces, scattered occurs of black mineral, no luster | No | Massive | 2.5R 8/4 |
| 227 | 20% | Granite | 5R 7/4 | Equigranular | <4mm | Subangular, euhedral | Some hematization occurring in patches | Fracture | 6.5 | Trace biotite, trace chloritization, trace U-mineral, qtz, feldspar | Intense, small chips 10/ft | ----- | Mineralogy obscured along most faces | No | Massive | 5R 8/4 |
| 228 | 55% | Granite | 7.5R 6/6 | Equigranular | <3mm | Subangular, euhedral | Heavily hematized with some veins | Fracture | 6.5 | U-mineral, black mineral, feldspar, qtz, trace biotite, mineralogy obscured in many areas | Uncountable, many fractures and chips | ----- | Black mineral in small veins, cuts over veins of hematization, heavy (lots) of U-mineral | Yes | Massive | 7.5R 8/4 |
| 229-230 | 85% | Granite | 7.5R 8/2 | Equigranular | <4mm | Subangular, euhedral | Moderate hematization, some veins | Fracture | 7 | Trace biotite, feldspar, qtz, trace chloritization, U-mineral, white powder | Intense 9/ft | ----- | Heavy U-mineralization along slanted fractures, surrounded by hematization | No | Massive | 7.5R 8/4 |
| 231-233 | 90% | Granite | 7.5R 4/6 | Equigranular | <3mm | Subangular, euhedral | Moderately to heavily hematized, one big vein | Fracture | 3 | Trace biotite, feldspar, trace chloritization, qtz | Moderate 8/ft | ----- | Hematization prevalent throughout core and not just along fractures, some faces completely covered | No | Massive | 7.5R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|-------------|------------------------------------|-----------|--------------|------------------|--------------------|-------------------------|--|---------------------------|-------------------------------|---|---------------------------------|--------------------------|---|------------|---------|----------------------|
| 234 | 60% | Granite | 10R 7/4 | Equigran ular | <3mm | Subangular, euhedral | Moderate hematization | Fracture | 8 | Feldspar, qtz, trace biotite, vein of black mineral or discoloration from heavy hematization | Intense 13/ft | ----- | The core appears grainy or even metamorphosed, like a vein of quartz or quartzite that grew through two bigger mineral grains, grainy and massive appearance | Yes | Massive | 7.5R 7/6 |
| 235 | 70% | Granite | 7.5YR 7/6 | Equigra nular | <6mm | Subangular, euhedral | Moderate to heavy hematization in areas | Fracture | 5 | Minor biotite, feldspar, qtz, trace chloritization | Intense >11/ft | ----- | Sharp contact between moderate hematization and heavy hematization, orange powder on top of heavily altered vein, mineralogy obscured in multiple places | Yes | Massive | 7.5R 8/4 |
| 236- 237 | 90% | Granite | 7.5Y 5/6 | Equigra nular | <3mm | Subangular, euhedral | Moderate | Fracture | 4 | Trace biotite, qtz, feldspar | Moderate 6/ft | ----- | Plagioclase heavily hematized, no veins of hematization | No | Massive | 7.5R 8/4 |
| 238- 239 | 95% | Granite | 7.5R 5/6 | Equigra nular | <4mm | Subangular, euhedral | Moderate hematization | Fracture | 5 | Feldspar, qtz, trace biotite, fluorite in vein, trace U-mineral | Slight 5/ft | ----- | Thick fluorite veins surrounds qtz with some thin veins paralleling, black surface near fluorite | Yes | Massive | 7.5R 8/4 |
| 240- 246 | 85% | Granite | 7.5R 6/4 | Equigra nular | <3mm | Subangular, euhedral | Heavily hematization along slanted fractures, plag heavily altered | Fracture | 6 | Qtz, feldspar, trace biotite, trace chloritization, black mineral | Moderate 8/ft | ----- | Veins of hematization, lessens around end of 243, presence of black mineral | No | Massive | 7.5R 8/4 |
| 247- 253 | 70% | Granite | 7.5R 5/6 | Equigra nular | <4mm | Subangular, euhedral | Heavy hematization | Fracture | 5 | Qtz, feldspar, trace biotite, white powder, black mineral towards end, trace U-mineral in 253 | Intense 9/ft | ----- | Black mineral at depth 253 or color resulting from heavy hematization, feldspar very altered, mineralogy often obscured | No | Massive | 7.5R 7/6 |
| 254- 256 | 60% | Granite | 7.5YR 7/3 | Equigran ular | <3mm | Subangular, euhedral | Moderate hematization, decreases with depth | Fracture | 5 | Qtz, feldspar, minor biotite, trace chloritization, trace U- mineral | Moderate 7/ft | ----- | U-mineral darker green than normal | No | Massive | 2.5R 8/4 |
| 257- 260 | 85% | Granite | 7.5YR 7/4 | Equigra nular | <4mm | Subangular, euhedral | Moderate with some areas with heavy hematization | Fracture | 6 | Feldspar, trace biotite, qtz, trace chloritization, trace black mineral along some of the faces | Moderate 6/ft | ----- | Greenish, dull coating on one of the drill core faces, occurs on a fracture/vein, and covers all other minerals | No | Massive | 7.5YR 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|-------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|--|---------------------------------|--------------------------|--|------------|---------|----------------------------|
| 261-264 | 85% | Granite | 10YR 7/3 | Equigranular | <6mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 6 | Feldspar, trace biotite, qtz, trace chloritization, black mineral, U-mineral, white powder | Moderate 7/ft | ----- | Hematization varies with depth, dull greenish covering, more black mineral, mineralogy obscured in certain areas | No | Massive | 7.5YR 8/4 |
| 265-266 | 80% | Granite | 10YR 7/3 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7 | Qtz, feldspar, trace biotite, trace chloritization | Moderate 7/ft | ----- | Green covering along faces obscuring mineralogy | No | Massive | 7.5YR 8/4 |
| 267-271 | 85% | Granite | 7.5R 4/6 | Equigranular | <5mm | Subangular, euhedral | Heavily hematized | Fracture | 5 | Trace biotite, qtz, feldspar, white powder, black mineral | Light 5/ft | ----- | Beginning of 267 marks heavy hematization change, feldspar heavily altered, black mineral grew in thin fracture at depth 267 | No | Massive | 10R 8/4 |
| 272-274 | 70% | Granite | 10YR 7/4 | Equigranular | <5mm | Subangular, euhedral | Light hematization with areas of moderate hematization | Fracture | 7.5 | Trace biotite, trace chloritization, qtz, feldspar, minor U-mineral, trace black mineral | Intense 9/ft | ----- | More U-mineral than seen previously, black mineral lies over it, dark green covering over some faces, strange pink-brown grainy no luster/crystal faces vein | Yes | Massive | 2.5R 8/4 |
| 275-276 | 85% | Granite | 10YR 7/3 | Equigranular | <4mm | Subangular, euhedral | Light hematization with areas of moderate hematization | Fracture | 6.5 | Feldspar, qtz, trace biotite, trace chloritization, trace U-mineral with depth, trace black mineral with depth | Moderate 7/ft | ----- | Black and U-mineral occurs where there is more weathering, mineralogy obscured in areas by gray covering | No | Massive | 10R 8/4 |
| 277-283 | 80% | Granite | 7.5R 4/6 | Equigranular | <3mm | Subangular, euhedral | Heavy hematization | Fracture | 6.5 | Qtz, feldspar, trace biotite, trace chloritization, white powder, black mineral, trace fluorite in vein | Intense 9/ft | ----- | Plag heavily hematized, grainy pink no luster/crystal faces vein cuts through fluorite vein at depth 279 | Yes | Massive | 2.5R 8/4 (unaltered) |
| 284-291 | 80% | Granite | 7.5R 4/4 | Equigranular | <4mm | Subangular, euhedral | Heavily hematized | Fracture | 6 | Qtz, feldspar, trace biotite, black mineral, trace fluorite, white powder | Moderate 8/ft | ----- | Pink grainy vein, fracture at end of 290 broke along fluorite | No | Massive | 10R 8/4 (unaltered) |
| 292 | 70% | Granite | 10R 6/4 | Equigranular | <4mm | Subangular, euhedral | Heavy on one side of vein, moderate on the other | Fracture | 6 | Qtz, feldspar, minor biotite | Moderate 7/ft | ----- | Last two pieces of core have that pinkish vein that separates two different mineralogies: heavily hematized vs. less hematized with greenish coloring | Yes | Massive | 10R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|-------------|------------------------------------|-----------|--------------|--------------|--------------------|-------------------------|--|---------------------------|-------------------------------|---|--|--------------------------|--|------------|---------|----------------------|
| 293 | 95% | Granite | 7.5R 6/8 | Equigranular | <4mm | Subangular, euhedral | Heavily hematized | Fracture | 6.5 | Qtz, feldspar, trace biotite, trace U-mineral | Intense 9/ft | ----- | Fractured into larger pieces | No | Massive | 10R 8/4 |
| 294 | 40% | Granite | 10R 6/4 | Equigranular | <2mm | Subangular, euhedral | Very heavily hematized | Fracture | 6.5 | Qtz, feldspar, trace biotite, black mineral, white powder | Intense >12/ft | ----- | Large amounts of white powder, most mineralogy obscured with the plag heavily altered | No | Massive | ----- |
| 295 | 50% | Granite | 10R 6/6 | Equigranular | <3mm | Subangular, euhedral | Heavily hematized | Fracture | 6.5 | Qtz, feldspar, trace biotite, black mineral | Uncountable | ----- | Most mineralogy obscured | No | Massive | ----- |
| 296 | 40% | Granite | 5R 7/4 | Equigranular | <4mm | Subangular, euhedral | Moderately hematized | Fracture | 6 | Qtz, feldspar, trace biotite, trace chloritization, white powder | Intense 10/ft | ----- | Contains veins of dark material that appear to be surrounded by quartz | Yes | Massive | 10R 8/4 |
| 297- 299 | 50% | Granite | 10R 6/4 | Equigranular | <3mm | Subangular, euhedral | Heavy hematization with altered plag | Fracture | 5 | Qtz, feldspar, minor biotite, trace chloritization, black mineral, white powder | Intense, uncountable areas, many pieces >12/ft | ----- | Highly fractured dendritic mineral | Yes | Massive | 10R 8/4 |
| 300- 301 | 90% | Granite | 10R 7/6 | Equigranular | <4mm | Subangular, euhedral | Moderate hematization with areas of heavy hematization | Fracture | 6 | Feldspar, qtz, trace biotite, minor chloritization, trace U- mineral | Moderate 7/ft | ----- | Pink granular veins in depth 301, crystal faces look altered or obscured those veins | No | Massive | 5R 8/4 |
| 302- 303 | 90% | Granite | 10R 7/6 | Equigranular | <3mm | Subangular, euhedral | Moderately hematized | Fracture | 7.5 | Feldspar, qtz, trace biotite, trace chloritization, trace U- mineral | Moderate 8/ft | ----- | Some dark brown-red granular veins with possibly qtz growing between | No | Massive | 10R 8/4 |
| 304 | 55% | Granite | 7.5YR 7/3 | Equigranular | <4mm | Subangular, euhedral | Minor except for some veins | Fracture | 6 | Trace U-mineral, trace biotite, trace chloritization, feldspar, qtz, black mineral | Moderate 7/ft | ----- | Multiple dark brown-rust red veins, hematized qtz, | Yes | Massive | 2.5R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|--|---------------------------------|--------------------------|--|------------|---------|----------------------|
| 305-308 | 90% | Granite | 2.5YR 7/6 | Equigranular | <4mm | Subangular, euhedral | Moderate except in veins and along certain faces | Fracture | 6.5 | Qtz, trace biotite, trace chloritization, feldspar, black mineral | Moderate 5/ft | ----- | Heavily veined rust red core, can be slightly vuggy along broken pieces with black mineral and small well developed qtz crystals | Yes | Massive | 2.4R 8/4 |
| 309-310 | 95% | Granite | 7.5YR 7/4 | Equigranular | <4mm | Subangular, euhedral | Light hematization | Fracture | 6 | Qtz, feldspar, trace biotite, trace chloritization, trace dark green mineral-U or chlorite? Black mineral | Moderate 5/ft | ----- | Less veining, start of 308 appears to break along mineralized fracture, some of the faces seem altered with no luster and no crystal faces | Yes | Massive | 5R 8/4 |
| 311-314 | 85% | Granite | 7.5YR 6/4 | Equigranular | <3mm | Subangular, euhedral | Light, some areas of heavy hematization | Fracture | 7.5 | Qtz, trace biotite, trace chloritization, trace U-mineral, feldspar, pink bladed mineral likely kspar in a vug, white powder | Moderate 5/ft | ----- | Rust red veins like ones mentioned above (305-308), slightly vuggy in areas with well-developed gray qtz, veins have at least three layers | Yes | Massive | 5R 8/4 |
| 315-319 | 75% | Granite | 5YR 6/8 | Equigranular | <4mm | Subangular, euhedral | Light hematization, increases slightly with depth | Fracture | 7 | Trace fluorite, trace black mineral, trace U-mineral, trace biotite, trace chloritization, feldspar, qtz | Moderate 7/ft | ----- | Small crystals of fluorite scattered throughout and increases with depth | No | Massive | 2.5YR 7/8 |
| 320 | 55% | Granite | 10YR 5/2 | Equigranular | <3mm | Subangular, euhedral | Moderate hematization | Fracture | 7.5 | Qtz, feldspar, trace biotite, trace chloritization | Intense 8/ft | ----- | Sudden color change, darker mineralogy, more qtz, slightly vuggy in areas with small crystal growth | Yes | Massive | 7.5YR 8/4 |
| 321-322 | 80% | Granite | 10YR 6/3 | Equigranular | <4mm | Subangular, euhedral | Light hematization with areas of moderate hematization | Fracture | 7.5 | Qtz, feldspar, trace biotite, trace black mineral, white powder, trace fluorite | Light 4/ft | ----- | Mineralogy obscured in areas, no crystal faces and no luster | No | Massive | 5R 8/4 |
| 323 | 40% | Granite | 5YR 7/6 | Equigranular | <3mm | Subangular, euhedral | Localized areas of heavy hematization | Fracture | 7.5 | White powder, trace biotite, trace chloritization, feldspar, qtz, black mineral | Uncountable | ----- | Rounded broken pieces, mineral often obscured | No | Massive | 5R 8/4 |
| 324-325 | 85% | Granite | 10R 6/6 | Equigranular | <3mm | Subangular, euhedral | Heavy hematization | Fracture | 6.5 | Black mineral, qtz, feldspar, trace biotite, trace chloritization, trace U-mineral | Moderate 7/ft | ----- | Some faces completely hematized, one piece has small vug of small, defined crystals | No | Massive | 10R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|--|--------------------------------------|--------------------------|---|------------|---------|----------------------|
| 326-327 | 80% | Granite | 7.5YR 7/4 | Equigranular | <5mm | Subangular, euhedral | Light hematization, heavy hematization in one area | Fracture | 7.5 | Black mineral, trace U-mineral, trace biotite, trace chloritization, feldspar, qtz, white powder | Increases with depth, moderate >6/ft | ----- | Beginning of 326 has crystal layer, appears core broke along it, qtz vein with area of developed crystals | Yes | Massive | 5R 8/4 |
| 328-329 | 60% | Granite | 10R 6/4 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7 | Qtz, feldspar, trace biotite, trace chloritization, black mineral with dendritic growth | Moderate 8/ft | ----- | Mineralogy obscured in some areas from hematization | No | Massive | 10R 8/4 |
| 330-331 | 85% | Granite | 7.5YR 7/4 | Equigranular | <5mm | Subangular, euhedral | Light to moderate hematization | Fracture | 7 | Trace black mineral, trace fluorite, qtz, feldspar, trace biotite, trace U-mineral | Intense 9/ft | ----- | Fluorite near areas of heavier hematization and occurs as both veins and blobs | No | Massive | 2.5R 8/4 |
| 332-338 | 95% | Granite | 5R 7/4 | Equigranular | <4mm | Subangular, euhedral | Light to moderate hematization, increases with depth | Fracture | 8 | Trace biotite, trace chloritization, feldspar, qtz, black dendritic mineral, trace U-mineral | Moderate 7/ft | ----- | Brecciated veins, dendritic growth with no crystal faces | No | Massive | 10R 8/4 |
| 339-341 | 85% | Granite | 7.5R 4/6 | Equigranular | <3mm | Subangular, euhedral | Heavy hematization | Fracture | 7 | Trace biotite, trace chloritization, black dendritic mineral, trace fluorite, qtz, feldspar | Moderate 8/ft | ----- | Small blobs of fluorite, hematite veins can be parallel to each other | No | Massive | 7.5R 8/4 |
| 342 | 95% | Granite | 7.5R 5/6 | Equigranular | <5mm | Subangular, euhedral | Heavy hematization | Fracture | 6 | Chloritization, trace biotite, feldspar, qtz | Intense 9/ft | ----- | Qtz vein with small qtz crystals in vug, sawed part of it | No | Massive | 7.5R 8/4 |
| 343-344 | 60% | Granite | 7.5R 4/6 | Equigranular | <4mm | Subangular, euhedral | Heavy hematization | Fracture | 7 | Trace biotite, trace chloritization, qtz, feldspar, black mineral, trace fluorite | Moderate 6/ft | ----- | Hematization fractures can be concave, fluorite in small vein | Yes | Massive | 7.5R 8/4 |
| 345-346 | 55% | Granite | 7.5R 6/6 | Equigranular | <4mm | Subangular, euhedral | Light hematization, heavy hematization in areas | Fracture | 6 | Dendritic black mineral, trace U-mineral, trace biotite, trace chloritization, qtz, feldspar | Moderate 8/ft | ----- | Brecciation, look at hole 2 depth 346 to see if it continues, sharp contact, plag altered at start of 345 | No | Massive | 7.5R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|--------------------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|---|---|--------------------------|--|------------|---------|----------------------|
| 347-348 | 55% | Granite | 10R 5/6 | Equigranular | <3mm | Subangular, euhedral | Light to heavy hematization, increases with depth | Fracture | 6 | Black dendritic mineral, white powder, feldspar, qtz, trace biotite | Uncountable | ----- | Veining of dark granular material, brecciation | No | Massive | 10R 8/4 |
| 349-350 | 75% | Granite | 10R 6/6 | Equigranular | <7mm | Subangular, euhedral | Moderate hematization, decreases with depth | Fracture | 6 | Qtz, feldspar, minor biotite, minor chloritization | Moderate 6/ft | ----- | Small veins of hematization | No | Massive | 7.5R 8/4 |
| 351-352 | 90% | Granite | 7.5YR 7/2 | Equigranular | <5mm | Subangular, euhedral | Minor hematization, increases slightly with depth | Fracture | 6 | Minor biotite, feldspar, qtz, trace chloritization, trace U-mineral | Moderate 6/ft | ----- | Green-gray vein and plating on some of the core on depth 352, no luster, no minerals visible in vein | Yes | Massive | 10R 8/4 |
| 353-357 | 75% | Granite | 7.5R 7/6 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization, increases with depth | Fracture | 7 | Trace biotite, trace chloritization, feldspar, quartz | Moderate 6/ft | ----- | Colors taken from heavily hematized piece | No | Massive | 7.5R 4/6 |
| 358 | 50% | Granite | 2.5YR 7/6 | Equigranular | <3mm | Subangular, euhedral | Moderate to extreme hematization, increases with depth | Fracture | 5 | Trace fluorite, trace U-mineral, trace biotite, qtz, trace chloritization, feldspar | Heavily fractured at end of depth <8/ft | ----- | Pockets/vugs of hematized, crystallized quartz, core highly broken around those areas, brecciated vein that is hematized | Yes | Massive | 2.5R 8/4 |
| 359-360 367-368 | 70% | Granite | 10R 6/6 | Equigranular | <4mm | Subangular, euhedral | Moderate to extreme hematization, increases with depth | Fracture | 6 | Trace fluorite, trace biotite, trace chloritization, feldspar, qtz | >6/ft Moderate | ----- | Depth 367 contains quartz and fluorite vug with sharp contact between the two in area of localized, heavy hematization. | Yes | Massive | 10R 7/6 |
| 372 | 40% | Granite | 7.5R 6/6 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization, increases with depth | Fracture | 5 | Trace biotite, trace chloritization, feldspar, qtz, trace manganese oxide, clay | Intense Heavily fractured and chipped, uncountable | ----- | Hematization veins, manganese oxide mineral on core with clay, color taken from heavily hematized area | No | Massive | 10R 8/4 |
| 373-374 | 60% | Granite | 10R 7/6 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization, increases with depth | Fracture | 4 | Clay, qtz, feldspar, trace biotite, trace chloritization, trace manganese oxide | >9/ft Fractured heavily at end of 373 | ----- | Most of 374 is missing, has brecciated, heavily altered, no minerals present, soft and crumbly along some faces | No | Massive | 10R 7/8 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------------------------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|--|---|--------------------------|---|------------|---------|----------------------|
| 378-381 385-386 | 75% | Granite | 10R 4/6 | Equigranular | <4mm | Subangular, euhedral | Heavy hematization throughout | Fracture | 6.5 | Trace biotite, trace chloritization, feldspar, qtz | >9/ft Some areas more fractured | ----- | Hematization veins, core seems to break along areas of heaviest hematization | No | Massive | 7.5R 7/6 |
| 393-385 | 50% | Granite | 2.5R 5/4 | Equigranular | <6mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 4 | Minor biotite, trace chloritization, qtz, feldspar, manganese oxide | Intense >9/ft | ----- | Brecciated vein that is hematized, brown-gray grainy, no crystal faces | No | Massive | 7.5R 8/4 |
| 398-404 | 50% | Granite | 2.5R 7/4 | Equigranular | <4mm | Subangular, euhedral | Highly moderate throughout, decreases slightly with depth | Fracture | 7 | Minor biotite, minor chloritization, feldspar, manganese oxide, clay | Intense 9/ft | ----- | Hematization veins, hematization heavy enough in areas to obscure mineralogy, small qtz vug at depth 401 | No | Massive | 2.5R 8/4 |
| 405-406 410 412-413 | 70% | Granite | 10R 6/6 | Equigranular | <5mm | Subangular, euhedral | Moderate hematization, heavy along some faces | Fracture | 4 | Trace U-mineral possible at depth 405, minor biotite, minor chloritization, feldspar, qtz, manganese oxide | Moderate 5/ft | ----- | Hematization veins, brown-pink vein, no crystals, slightly brecciated, in some areas, gray green faces, no luster, minerals, crystals visible | No | Massive | 10R 6/6 |
| 414-415.5 421-422 | 50% | Granite | 2.5R 6/4 | Equigranular | <4mm | Subangular, euhedral | Moderate hematization to heavy along some faces | Fracture | 7 | Minor biotite, minor chloritization, feldspar, qtz, trace U-mineral possible at depth 421 | Moderate 6/ft | ----- | Hematization veins, grey-green covering on some faces | No | Massive | 7.5R 8/4 |
| 423-426 | 40% | Granite | 7.5YR 7/3 | Equigranular | <3mm | Subangular, euhedral | Moderate hematization, heavy in some areas | Fracture | 6 | Minor biotite, minor chloritization, feldspar, qtz | Moderate 6/ft | ----- | Gray-green vein at depth 424, has sharp contact with hematization at depth 425 | Yes | Massive | 4R 8/4 |
| 427-432 | 70% | Granite | 7.5R 6/6 | Equigranular | <4mm | Subangular, euhedral | Heavy hematization | Fracture | 5 | Clay, trace manganese oxide, qtz, feldspar, minor biotite, minor chloritization | Moderate, fractures increase with depth 7/ft | ----- | Some portions of core are soft and crumbly, green-gray covering, manganese oxide over it at depth, mineralogy obscured from hematization as depth increases | No | Massive | 10R 8/4 |
| 433-441 | 70% | Granite | 5R 6/4 | Equigranular | <3mm | Subangular, euhedral | Heavy hematization | Fracture | 4.5 | Trace manganese oxide, clay, trace biotite, trace chloritization, qtz, feldspar | 8/ft Moderate | ----- | Veins of hematization, some core is soft and crumbly, some faces obscured by hematization | No | Massive | 10R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|--------------------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|---|---|--------------------------|---|------------|---------|----------------------|
| 442-448 | 70% | Granite | 5R 6/4 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization throughout | Fracture | 5 | Trace manganese oxide, feldspar, qtz, minor biotite, trace chloritization | 7/ft Moderate Fractures increase with depth | ----- | Hematization increases slightly with depth, some veins throughout, faces can be obscured by it | No | Massive | 7.5R 8/4 |
| 449-450 | ----- | Granite | 7.5R 6/4 | Equigranular | <4mm | Subangular, euhedral | Very heavy hematization, decreases at depth 450 | Fracture | 4.5 | Trace biotite, trace chloritization, qtz, feldspar | 8/ft Moderate Decreases with depth | ----- | Many hematized veins, mineralogy obscured in most areas, some faces are soft and crumbly | No | Massive | 7.5R 8/4 |
| 451-453 | 85% | Granite | 10R 6/8 | Equigranular | <5mm | Subangular, euhedral | Slightly hematized | Fracture | 8 | Kspar | Moderate 8/ft | Gradational | ----- Logged by EH | No | Massive | 5R 8/4 |
| 454-460 | 80% | Granite | 10R 8/2 | Equigranular | <4mm | Subangular, euhedral | Slightly hematized | Fracture | 7.5 | Kspar | Intense 9/ft | Gradational | ----- Logged by EH | No | Massive | 10R 8/2 |
| 461-462 | 80% | Granite | 7.5R 7/2 | Equigranular | <5mm | Subangular, euhedral | Heavily hematized | Fracture | 7.5 | Kspar | Intense 10/ft | Gradational | ----- Logged by EH | No | Massive | 10R 8/4 |
| 463 | 70% | Granite | 5R 6/4 | Equigranular | <5mm | Subangular, euhedral | Light to moderate hematization | Fracture | 6.5 | Feldspar, qtz, trace biotite, trace chloritization, clay, trace U-mineral | >12/ft Intensely, uncountable in certain areas | ----- | Lots of clay, highly fractured in areas, part of the cores have black coating, no luster, 5 in hardness | No | Massive | 5R 8/4 |
| 464-468 | 90% | Granite | 7.5YR 7/3 | Equigranular | <5mm | Subangular, euhedral | Light to moderate hematization, decreases with depth | Fracture | 6.5 | Feldspar, qtz, trace biotite, trace chloritization, clay, trace U-mineral | >9/ft Intense, decreases with depth | ----- | No clay or black coating, higher hematization than above | No | Massive | 7.5R 8/4 |
| 470 475- 483 | 85% | Granite | 7.5R 6/4 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7.5 | Trace biotite, no evidence of chloritization, feldspar, black coating | >9/ft Intense, variable, depends on depth | ----- | Black coating could be result of extreme hematization? Rocks at 470 depth are fracture, light in color, little to no mineralogy present, fine grained | No | Massive | 7.5R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|-------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|---|---|--------------------------|--|------------|---------|----------------------|
| 484-487 | 80% | Granite | 7.5R 8/2 | Equigranular | <5mm | Subangular, euhedral | Hematization | Fracture | 7.5 | Kspar | Moderate 6/ft | Gradational | ----- Logged by EH | No | Massive | 2.5R 8/2 |
| 488-490 | 85% | Granite | 10R 8/2 | Equigranular | <5mm | Subangular, euhedral | Hematization | Fracture | 8 | Kspar | Moderate 5/ft | Gradational | ---- Logged by EH | No | Massive | 7.5R 8/2 |
| 491-492 | 85% | Granite | 7.5R 7/2 | Equigranular | ----- | Subangular, euhedral | Hematization | Fracture | 7 | Kspar | Moderate 5/ft | Gradational | ---- Logged by EH | No | Massive | 10R 8/2 |
| 493-498 | 65% | Granite | 10R 4/6 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 5.5 | Trace manganese oxide, trace biotite, trace chloritization, trace clay, feldspar, quartz | Intense <10/ft Decreases with depth | ----- | Kspar heavily altered, hematization variable with depth, manganese oxide mineral overlies hematization that obscures faces | No | Massive | 7.5R 4/8 |
| 499-500 | 70% | Granite | 10R 4/4 | Equigranular | <4mm | Subangular, euhedral | Heavy hematization | Fracture | 8 | Trace manganese oxide, minor biotite, minor chloritization, feldspar, qtz | >13/ft Intensely fractured, small pieces | ----- | Small vug on depth 499, fine white hair-like particles present, much of core has black faces, likely from hematization, interesting hematization structures at depth 500 | No | Massive | 7.5R 6/8 |
| 501 | 85% | Granite | 7.5R 5/6 | Equigranular | <4mm | Subangular, euhedral | Heavily hematized | Fracture | 7.5 | Trace manganese oxide, trace biotite, trace chloritization, feldspar, qtz | Moderate 8/ft | ----- | Thin hematization veins, mineralogy obscured along most faces from hematization, sharp contact of above that caused core to break along it | No | Massive | 7.5R 6/8 |
| 502-504 | 60% | Granite | 10R 5/6 | Equigranular | <3mm | Subangular, euhedral | Intensely hematized, decreases with depth | Fracture | 7.5 | Trace manganese oxide, trace U-mineral, trace biotite, trace chloritization, qtz, feldspar | Intensely Uncountable | ----- | Orange yellow powder prevalent, fingernail soft, can be thin coating up to a 6mm thick covering, strange hematization structures | Yes | Massive | 7.5R 6/6 |
| 505-509 | 50% | Granite | 2.5R 6/4 | Equigranular | <4mm | Subangular, euhedral | Moderate hematization, increases slightly with depth | Fracture | 7.5 | Trace manganese oxide, trace U-mineral possible, trace clay, trace biotite, trace chloritization, feldspar, qtz | <7/ft Uncountable Depth 507-508 | ----- | End of 206 has hardness of 2, black powdery sooty coating, no luster, core appears weathered or altered, core broken along | Yes | Massive | 7.5R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|-------------|------------------------------------|-----------|--------------|--------------|--------------------|---|--|---------------------------|----------------------------------|--|---|--------------------------|--|------------|---------|----------------------|
| | | | | | | | | | | | | | faces of no mineralogy, small vug of 5mm qtz crystals, strange hematization patters common | | | |
| 510 | 45% | Granite | 10R 3/6 | Equigranular | ----- | Subangular, euhedral | Intense | Fracture | 6.5 clast 7 dark material | Trace U-mineral possible, minor feldspar, qtz, black powdery, no luster like above covering on some of core, writes on paper | Uncountable | ----- | Intensely fractured and brecciated core, black fine grained matrix, clasts angular to Subangular, poorly sorted, hematization throughout, veining present, strange hematization ridges | Yes | Massive | 10R 6/8 |
| 511- 516 | 35% | Granite | 10R 4/6 | Pyroclastic | <3mm | Clasts angular to subangular, multiple sizes | Heavily hematized | Fracture | Black: 2-3 Granite: 7.5 | Clay, feldspar, qtz, trace biotite, trace chloritization | Uncountable | ----- | Brecciated and intensely fractured core, clasts appear to be hematized granite, black, soft partially soluble in water matrix, some portions of core are intact, covered on faces by same black material | No | Massive | 7.5R 3/8 |
| 517- 518 | 70% | Granite | 10R 4/4 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7.5 | Trace manganese oxide, trace biotite, trace chloritization, qtz, feldspar | Intense 10/ft | ----- | Small hematization vein throughout | No | Massive | 7.5R 6/8 |
| 519- 527 | 75% | Granite | 10R 5/2 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization, increases slightly with depth | Fracture | 7.5 | Minor biotite, trace chloritization, feldspar, qtz | Moderate 7/ft Increases with depth | ----- | Small hematization veins throughout, small vug on depth 526 | No | Massive | 7.5R 8/4 |
| 528- 529 | 90% | Granite | 2.5YR 5/2 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz | Moderate 7/ft | ----- | Hematization veins, thin qtz veins on some of the pieces | No | Massive | 10R 7/6 |
| 530- 534 | 50% | Granite | 5R 6/4 | Equigranular | <3mm | Subangular, euhedral | Minor to moderate hematization, increases slightly with depth | Fracture | 7.5 | Trace fluorite, trace manganese oxide, trace biotite, trace chloritization | Moderate 8/ft | ----- | Small vugs, some hematization veins | No | Massive | 2.5R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|----------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|---|---|--------------------------|---|------------|---------|----------------------|
| 535-536 | 80% | Granite | 2.5YR 7/2 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz | Moderate 8/ft | ----- | Brecciated hematized veins, black marks and covering on some of core not unlike depths 511-516, small vugs | No | Massive | 10R 8/4 |
| 537-545 | 65% | Granite | 10R 7/6 | Equigranular | <4mm | Subangular, euhedral | Heavily hematized throughout | Fracture | 7.5 | Minor manganese oxide, minor biotite, trace chloritization, feldspar, qtz | Intense 11/ft Varies slightly with depth | ----- | Small hematization veins throughout, fracture frequency varies with depth, hematization concentrated on faces and not on outside of core | No | Massive | 7.5R 7/6 |
| 546-549 | 70% | Granite | 10R 6/4 | Equigranular | <4mm | Subangular, euhedral | Heavily hematized, increases slightly with depth | Fracture | 7.5 | Trace biotite, trace chloritization, trace manganese oxide, feldspar, qtz | Intense 9/ft | ----- | Many hematization veins throughout and on outside of core, yellow orange hematization prevalent on many of the faces | No | Massive | 10R 8/4 |
| 550-554 | 55% | Granite | 10R 5/2 | Equigranular | <5mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7.5 | Trace manganese oxide, trace biotite, trace chloritization, feldspar, qtz | Moderate 8/ft Decreases with depth | ----- | Few hematization veins, no yellow orange hematization, piece of 553 is dark and dull brown with rough, iron-based plating | No | Massive | 7.5R 8/4 |
| 555-557 | 85% | Granite | 2.5YR 2.5/2 | Equigranular | <4mm | Subangular, euhedral | Moderate hematized with localized areas of heavy, increases with depth | Fracture | 7 | Minor biotite, minor chloritization, black sooty materials, qtz, feldspar | Intense 10/ft | ----- | Reminiscent of cores 511-519, black sooty low to no luster material, washes off but stains core | Yes | Massive | 10R 8/4 |
| 558-562 | 70% | Granite | 2.5YR 2.5/2 | Equigranular | <3mm | Subangular, euhedral | Intensely hematized, decreases slightly with depth | Fracture | 7.5 | Minor biotite, minor chloritization, feldspar, qtz, black sooty material, could be dirty from previous depths | Uncountable for most depths >9/ft for other depths | ----- | Mineralogy obscured in most areas, some of the pieces seem completely hematized | No | Massive | 10R 8/4 |
| 563-569 | 85% | Granite | 7.5R 5/2 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization throughout, heavy in localized areas | Fracture | 7.5 | Trace manganese oxide, trace biotite, trace chloritization, feldspar | Moderate 8/ft Decreases slightly with depth | ----- | Depth 563 has fracture and vug of large (10mm) qtz crystals, smaller crystals appear to be hematized | Yes | Massive | 10R 8/4 |
| 570-574 | 90% | Granite | 5YR 5/2 | Equigranular | <4mm | Subangular, euhedral | Minor, increases with depth | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz, trace fluorite | Intense 9/ft | ----- | End of 570 has bi-colored fluorite in small, thick vein, light green blue and purple in color, most of core also has greenish tint and light green-blue plating and veins | Yes | Massive | 2.5R 8/4 |

Drill Hole No. ____ Page ____ of ____

361-366 407-409

369-371 411

375-377 415.6-420

382-384 387-392

396-397

DRILL LOG—TAJO GRANITE, SOCORRO COUNTY, NEW MEXICO

HOLE NUMBER ARCH-2 DATE STARTED 06/18/20 COMPLETED 07/13/2020 LOGGED BY HD CORE CUTTINGS

LOCATION (NAD27) 34.046106, -106.805604 COLAR ELEVATION 4958 ft WEATHER Logged indoors

BOX NUMBER 1-63 INCLINATION 90 BEARING _____ SOP 17 DEVIATION FROM SOP All colors taken from wet core

COMMENTS Feldspar coloring always taken from the potassium feldspar, the first 30 feet are missing because of unknown issues

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|----------------------------|------------------------------------|------------------|--------------|---------|---|---------------------------|---------------------------|---|--------------------------------------|---|---|--------------------------|---|------------|-----------------------------|----------------------|
| 30 | 80% | Conglome rate | 7.5YR 7/4 | Clastic | Matrix is fine sand, phenocrysts vary from small to large pebbles | Subrounded, Subangular | ----- | None | Matrix is soft, clasts vary | Granite, qtz, sedimentary and volcanic clasts | Uncountable, many small fragments | ----- | More compacted than rest of core, more clasts, one piece has dark vein, crumbly, many pieces | No | Moderatel y compacted | ----- |
| 34 37 44-47 53-56 | 80% | Conglome rate | 5YR 5/6 | Clastic | Matrix is fine sand, phenocrysts vary from small to large pebbles | Subrounded, Subangular | ----- | None | Matrix is soft, clasts vary | Volcanic and sedimentary clasts, granite has plagioclase, biotite, chloritization, qtz | Uncountable, many small fragments, depth 56 has about 5/ft | ----- | Slightly more compacted than above | No | Moderatel y compacted | ----- |
| 57-68 | 90% | Conglome rate | 7.5YR 7/4 | Clastic | Matrix is fine sand, phenocrysts vary from small to large pebbles | Subrounded, Subangular | ----- | Some layering of clasts, no orientatio n | Matrix is soft, clasts vary | Trace muscovite, qtz, granite, sedimentary and volcanic clasts | Moderate 7/ft Decreases with depth | ---- | More compacted then above, amount of clases increases with depth | No | Moderatel y compacted | ----- |
| 69 75-82 | 85% | Conglome rate | 2.5YR 5/6 | Clastic | Matrix is fine sand, phenocrysts vary from small to large pebbles | Subrounded, Subangular | ----- | None | Matrix is soft, clasts vary | Granite, sedimentary clasts, kspar, qtz, biotite, chloritization | Uncountable | ----- | Fewer clasts than above, many small pieces | No | Moderatel y compacted | ----- |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|-------|------------------------------------|--------------------------------|--------------|---------|---|---------------------------|---|--|--|---|---|--------------------------|--|------------|---------------------|----------------------|
| 83-84 | 95% | Conglome rate | 2.5R 5/4 | Clastic | Matrix is fine sand, phenocrysts vary from small to large pebbles | Subrounded, Subangular | Evidence for hematization based off color | None | Matrix is soft, clasts vary | Muscovite, qtz, clay, volcanic and sedimentary rocks | Light 4/ft | ----- | Difficult to see clasts, not visible on outside of core, fewer pebbles, sediments more lithified | No | Highly compacted | ----- |
| 85 | 95% | Conglome rate | 2.5R 4/4 | Clastic | Matrix of fine sand, phenocrysts generally small | Subrounded, Subangular | Appears to be highly hematized | None | Matrix is soft, clasts vary | Volcanic and sedimentary clasts, mineralogy difficult to discern | Moderate 5/ft | ----- | Clasts difficult to discern | No | Highly compacted | ----- |
| 86-88 | 90% | Matrix supported breccia | 5YR 2.5/2 | Clastic | Very fine to coarse pebbles | Angular, Subangular | Heavily hematized | Poorly sorted | Matrix is soft, clasts vary | Appears to mostly consist of the same clasts, black in color and fine grained where some have white layering or vein, few whiter clasts with light green tint appears, qtz | Light 3/ft | ----- | Appears to have alteration around one of the clasts at end of depth 86 | No | Highly cemented | ----- |
| 89-92 | 95% | Matrix supported breccia | 5R 3/4 | Clastic | Small to large pebbles | Angular to Subangular | Moderate hematization | Poorly sorted | 4 (matrix) | Qtz, clay, 89 has minor, light green fluorite, not in veins, clasts vary in color but all are finer grained | Moderate 5/ft Increases with depth | ----- | Platy hematization structures of 92, could be a vein, depth 90 appears to be all of the same mineralogy | Yes | Highly cemented | ----- |
| 93 | 95% | Matrix supported breccia | 7.5YR 7/4 | Clastic | Small pebbles | Angular to Subangular | Heavy hematization | Less brecciated , moderatel y sorted | 7.5 (domina nt litholog y) | Qtz, feldspar, hematization veins, euhedral mineral that appears to be altered through oxidation/reduction | Light 4/ft | ----- | Hematized veins throughout core, chloritization in trace amounts, areas cut by vein come from same source, small vugs on end | Yes | Highly cemented | ----- |
| 95-97 | 90% | Matrix supported breccia | 5YR 4/2 | Clastic | Very fine to coarse pebbles | Angular to Subangular | Moderate hematization | Poorly sorted | 8 | Qtz, feldspar, dark, fine grained clasts that are likely sedimentary | Moderate 7/ft | ----- | Depth 95 is broken by clay-difficult to see host rock, core records crystal growth, acicular and platy near faces, hematization veins throughout, hematized qtz crystal vugs | Yes | Highly cemented | ----- |
| 98-99 | 90% | Matrix supported breccia | ----- | Clastic | ----- | ----- | Moderate to heavy hematization | Poorly sorted | ----- | Qtz, fluorite, feldspar, 1 granite clast, matrix difficult to determine because of heavy alteration | Intense 9/ft | ----- | Very vuggy, qtz appears to be hematized, appears as if the vugs formed between the qtz and fluorite veining, too altered to get much data | Yes | Highly cemented | ----- |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|--------------------------|------------|--------------|-----------------------------|-----------------------|---|---------------------------|-------------------------------|--|-----------------------------------|--------------------------|---|------------|------------------|----------------------|
| 100-106 | 50% | Matrix supported breccia | 2.5YR 7/6 | Clastic | Fine to medium pebbles | Angular to Subangular | Moderate to heavy hematization | Poorly sorted | 7.5 (matrix) | Clay, qtz, feldspar, fine grained clasts, qtz is hematized in vugs | Intense >10/ft | ----- | Fine grained matrix on inside, outside appears brecciated by same, qtz and hematization veins, small vugs throughout, yellow and pink discoloration on some of the faces | No | Highly cemented | 7.5R 7/6 |
| 107-112 | 85% | Matrix supported breccia | 7.5R 5/6 | Clastic | Fine to medium pebbles | Angular to Subangular | Moderate to heavy hematization, increases slightly with depth | Poorly sorted | 8 | Clay, qtz, fine grained light gray-brown clasts, sedimentary and volcanic clasts | Uncountable, decreases with depth | ----- | Hematization and qtz veins, matrix seems hematized in some areas, qtz crystal purple in color growth depth 110 | No | Heavily cemented | ----- |
| 113-114 | 70% | Matrix supported breccia | 2.5R 4/4 | Clastic | Very fine to coarse pebbles | Angular to Subangular | Intensely hematized | Poorly sorted | 5 | Clay, qtz, volcanic and sedimentary clasts, dark gray matrix when not hematized | Uncountable, intense | ----- | Extent of hematization makes it difficult to see, many light color veins that could possibly be qtz | No | Heavily cemented | ----- |
| 115-119 | 90% | Matrix supported breccia | 2.5R 2.5/2 | Clastic | Very fine to coarse pebbles | Angular to Subangular | Moderate hematization, increases with depth | Poorly sorted | 7.5 | Qtz, feldspar, chloritized biotite, fluorite, pyrite, hardness 3 mineral possibly barite, manganese oxide, granite and fine grained clasts | Moderate 7/ft | ----- | Small chips of hematized and chloritized graite, small qtz vugs throughout, offset veins on depth 119 | Yes | Heavily cemented | ----- |
| 120 | 85% | Matrix supported breccia | 5YR 2.5/2 | Clastic | Very fine to medium pebbles | Angular to Subangular | Intensely hematized | Poorly sorted | 8 | Qtz, fine grained clasts likely sedimentary and volcanic in origin, clay | Moderate to intense >8/ft | ----- | Clasts and matrix seem to be altered by hematization, difficult to see because of extent | No | Heavily cemented | ----- |
| 121-122 | 90% | Matrix supported breccia | 10YR 8/3 | Clastic | Very fine to medium pebbles | Angular to Subangular | Light to heavy hematization, decreases with depth | Poorly sorted | 8 | Qtz, fine grained light color clasts likely volcanic and sedimentary in origin, granite | Slight 3/ft | ----- | 3 parallel offset veins visible at depth 122, one of the veins is brecciated, small qtz vugs and hematization veins throughout, three distinct contacts-hematization, fine grained, and granite | Yes | Heavily cemented | ----- |
| 123 | 95% | Granite | 5R 6/4 | Equigranular | <3mm | Subangular, euhedral | Lightly hematized | Fracture | 7.5 | Qtz, feldspar, trace biotite, trace chloritization | Slight 4/ft | ----- | Granite with many dark red-brown fine grained veins, not brecciated | Yes | Massive | 10R 7/8 |
| 124-131 | 90% | Granite | 5YR 6/6 | Equigranular | <3mm | Subangular, euhedral | Light to localized areas of heavy hematization | Fracture | 7.5 | Qtz, feldspar, trace biotite, trace chloritization | Moderate 5/ft | ----- | Dark red brown veining on depths 128 and 130, depth 128 has strange veining pattern, veins can be slightly brecciated | Yes | Massive | 5R 8/6 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|------------------|-------------------------------------|-------------------------|--|---------------------------|-------------------------------|--|---|--------------------------|--|------------|---------|----------------------|
| 132-136 | 95% | Granite | 7.5YR 6/2 | Equigr anular | <3mm | Subangular, euhedral | Light hematization | Fracture | 7 | Trace pyrite depth 132, trace manganese oxide, feldspar, qtz, light dull green covering that could be chloritization | Slight 4/ft | ----- | Well defined light green- blue fluorite vein at depth 133, hematized qtz and pyrite depth 132, dark red fine-grained veins throughout | Yes | Massive | 2.5R 8/4 |
| 137-140 | 95% | Granite | 7.5YR 6/3 | Equigr anular | <3mm | Subangular, euhedral | Moderate to heavy hematization, increases with depth | Fracture | 8 | Qtz, feldspar, greenish covering like above | Intense 9/ft | ----- | Depth 139 heavily hematized, appeared to get finer grained with depth, dark red veins throughout | No | Massive | 5R 8/4 |
| 141-144 | 95% | Granite | 7.5R 6/6 | Equigr anular | <3mm | Subangular, euhedral | Moderate hematization | Fracture | 7.5 | Feldspar, qtz, green covering like above | Moderate 7/ft | ----- | Appears to be altered, fine grained, little to no crystals present, pockets of quartz surrounded by fine matrix, pockets of granite | Yes | Massive | 5R 8/4 |
| 145-150 | 90% | Granite | 10YR 6/3 | Equigr anular | <4mm | Subangular, euhedral | Moderate hematization | Fracture | 8 | Qtz, feldspar, green covering like above | Slight 4/ft | ----- | Less altered at end of 148, veins of all sizes, colors, and types present, hematized qtz crystals | Yes | Massive | 7.5YR 8/4 |
| 151-153 | 95% | --- | 10YR 4/1 | Fine grained | Mostly fine matrix, no clasts | ---- | Light hematization | Fracture | 5 | Chloritization, qtz | Slight 2/ft | ----- | Small qtz vug, no granite, fine gray matrix, veining increases with depth, dark red or light pink veining | No | Massive | ----- |
| 154-158 | 95% | Granite | 7.5R 6/6 | Equigr anular | <4mm | Subangular, euhedral | Moderate hematization | Fracture | 7.5 | Qtz, feldspar, chloritization | Slight 4/ft | ----- | Hematized qtz crystals, dark red and gray veining | No | Massive | 5R 8/4 |
| 159-160 | 90% | Granite | 7.5R 6/6 | Equigr anular | <4mm | Subangular, euhedral | Light to moderate, decreases with depth | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz | Slight 3/ft | ----- | Multiple veins | No | Massive | 5R 8/4 |
| 161-167 | 90% | Granite | 5R 5/4 | Equigr anular | <4mm | Subangular, euhedral | Moderate to heavy hematization, decreases with depth | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz | Slight 4/ft Decreases with depth | ----- | Hematization veins that obscures mineralogy throughout, small pocket of hematized qtz right on a vein at end of 167 | No | Massive | 2.5YR 7/8 |
| 168-178 | 90% | Granite | 7.5YR 4/4 | Equigr anular | <4mm | Subangular, euhedral | Moderate hematization | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz | Slight 2/ft | ----- | 2 colored vein at depth 169, sharp contact between unaltered and altered plag, thin white veins cut across, depth 177 has sharp contrast between dark red alteration surface and granite, 175 has qtz vein centered in dark red vein, vein has thin black like between it and granite, also contains pieces of granite, platy break at end of 176 | Yes | Massive | 5YR 7/8 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|-------------|------------------------------------|-----------|--------------|------------------|--------------------|-------------------------|---|---------------------------|-------------------------------|---|---|--------------------------|--|------------|---------|----------------------|
| 179 | 95% | Granite | 5YR 6/6 | Equigr anular | <4mm | Subangular, euhedral | Little to no hematization | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz | Slight 4/ft | ----- | Crystallized qtz growth coating face at end of depth 179, appears to have formed in vein that broke in half, small veins throughout | Yes | Massive | 5YR 7/6 |
| 180- 183 | 90% | Granite | 5YR 6/6 | Equigr anular | <6mm | Subangular, euhedral | Little to no hematization | Fracture | 7.5 | Qtz, fluorite, trace barite, trace biotite, feldspar, qtz | Slight 2/ft | ----- | Multiple large qtz and fluorite veins and vugs, fluorite crystals as large as 10mm, qtz small, fluorite light green-blue and purple | Yes | Massive | 5YR 7/6 |
| 184- 185 | 95% | Granite | 5YR 6/6 | Equigr anular | <5mm | Subangular, euhedral | Little to no hematization | Fracture | 7.5 | Qtz, feldspar, trace biotite, trace chloritization | Slight 2/ft | ----- | Brecciated veining, large quartz vug, for depths 179- 185 plag is altered around the veining | Yes | Massive | 5YR 7/6 |
| 186- 188 | 90% | Granite | 7.5YR 7/4 | Equigr anular | <4mm | Subangular, euhedral | Little to no hematization | Fracture | 7.5 | Trace pyrite, trace sulfide, trace U-mineral, trace fluorite, 1 crystal of vitreous yellow mineral surrounded by yellow powder, qtz, feldspar, trace biotite, trace chloritization | Slight 2/ft Not counting fractured qtz and fluorite | ----- | Dark red qtz veining, small qtz vugs in veins that can be brecciated, end of 188 highly fractured with qtz and fluorite pieces | Yes | Massive | 5R 8/4 |
| 189- 191 | 95% | Granite | 5YR 7/6 | Equigr anular | <4mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7.5 | Trace manganese oxide, trace biotite, trace chloritization, feldspar, qtz | Slight 2/ft | ----- | Large white vein at depth 190 | No | Massive | 5R 8/4 |
| 192- 195 | 90% | Granite | 7.5R 6/1 | Equigr anular | <3mm | Subangular, euhedral | Light hematized, localized areas of heavy | Fracture | 7.5 | Trace barite, trace biotite, trace chloritization, feldspar, qtz | Slight 3/ft | ----- | Dark red and qtz veins, same small qtz crystals with barite, dark colored discoloration throughout core, plag seems to be altered around that | No | Massive | 7.5YR 8/4 |
| 196- 204 | 90% | Granite | 5YR 6/6 | Equigr anular | <5mm | Subangular, euhedral | Heavy hematization | Fracture | 7.5 | Fluorite, qtz, trace biotite, trace chloritization, feldspar | Slight 3/ft | ----- | Qtz, fluorite veining, qtz vugs throughout, fluorite associated with red clay, qtz with brecciated dark red vein | Yes | Massive | 5YR 7/6 |
| 205- 213 | 95% | Granite | 7.5YR 5/2 | Equigr anular | <3mm | Subangular, euhedral | Heavy hematization at certain depths | Fracture | 7.5 | Fluorite, qtz, trace biotite, trace chloritization, feldspar | Slight 4/ft | ----- | Brecciated qtz and fluorite veins, veining decreases with depth, most of qtz appears hematized, red clay in certain areas | Yes | Massive | 2.5YR 7/6 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|-------------|------------------------------------|-----------|---------------|--------------|--------------------|-------------------------|---|---------------------------|-------------------------------|--|---------------------------------|--------------------------|---|------------|---------|----------------------|
| 214- 215 | 95% | Granite | 7.5YR 5/3 | Equigranular | <4mm | Subangular, euhedral | Heavily hematized | Fracture | 7.5 | Qtz, fluorite, barite, feldspar, clay | Moderate 5/ft | ----- | Crystals grew in the veining, acicular structure growth recorded, brecciated veins, hematization obscured most mineralogy | Yes | Massive | 5YR 7/6 |
| 216- 222 | 90% | Granite | 5R 6/4 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7.5 | Qtz, feldspar, minor biotite, minor chloritization | Slight 3/ft | ----- | Hematization increases with depth, mineralogy obscured in some areas, black covering at depth 220 | No | Massive | 5R 8/4 |
| 223- 231 | 90% | Granite | 2.5R 2.5/2 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7.5 | Fluorite, trace manganese oxide, trace biotite, trace chloritization, feldspar | Slight 4/ft | ----- | Mineralogy obscured, hematization veins throughout, some small vugs with qtz | No | Massive | 10R 6/8 |
| 232- 241 | 90% | Granite | 7.5R 4/4 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7.5 | Plag, qtz, trace biotite, trace chloritization | Slight 3/ft | ----- | Hematization decreases with depth, some small brecciated veins | No | Massive | 2.5YR 7/8 |
| 242- 251 | 95% | Granite | 10R 4/4 | Equigranular | <5mm | Subangular, euhedral | Moderate hematization, heavy in localized areas | Fracture | 7.5 | Qtz, feldspar, trace biotite, trace chloritization | Slight 2/ft | ----- | Kspar heavily altered in some areas (color 7.5R 2.5/4), can be difficult to see mineralogy at end of core-flat and indistinct in appearance, veining depth 242 of two types: dark red fine-grained and small brecciated one | Yes | Massive | 5YR 7/6 |
| 252- 259 | 90% | Granite | 5YR 6/6 | Equigranular | <5mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7.5 | Trace manganese oxide, qtz, feldspar, trace biotite, trace chloritization, hematized quartz crystals, clay | Slight 3/ft | ----- | Flat and indistinct faces on many pieces, small brecciated veins and small dark red veins, red veins appeared to alter core around it | No | Massive | 5YR 7/6 |
| 260- 262 | 95% | Granite | 10YR 7/4 | Equigranular | <4mm | Subangular, euhedral | Light hematization, heavy in areas where kspar is altered around veins | Fracture | 7.5 | Trace manganese oxide, trace biotite, trace chloritization, feldspar, qtz | Slight 3/ft | ----- | Kspar seemed to alter around multiple small, dark red veins scattered throughout core | No | Massive | 5YR 7/6 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------------|------------------------------------|-----------|---------------|--------------|--------------------|-------------------------|---|---------------------------|-------------------------------|--|---|--------------------------|---|------------|---------|--------------------------|
| 263- 268 | 95% | Granite | 7.5R 2.5/4 | Equigranular | <3mm | Subangular, euhedral | Heavy hematization | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz | Slight 3/ft | ----- | Dark green discoloration at beginning of interval, could be chloritization, kspars altered throughout but no veins, faces can be flat and indistinct, kspars dominant color | No | Massive | 7.5R 2.5/4 |
| 269- 270 | 95% | Granite | 2.5YR 4/2 | Equigranular | <4mm | Subangular, euhedral | Heavy hematization along one face, little to none elsewhere | Fracture | 7.5 | Trace fluorite, trace biotite, trace chloritization, qtz, feldspar | Moderate 5/ft | ----- | Large vein with multiple layers and colors, growth rings inside the vein of fluorite, appears as if it altered surrounding core | Yes | Massive | 7.5YR 8/3 |
| 271- 277 | 90% | Granite | 10R 4/2 | Equigranular | <5mm | Subangular, euhedral | Moderate to heavy hematization, increases with depth | Fracture | 7.5 | Trace biotite, trace chloritization, qtz, feldspar | Slight 4/ft Increases with depth | ----- | Multiple veins: one is red and branching, and the other is fine grained and gray, red vein appears to cut across gray vein | No | Massive | 2.5R 2.5/4 |
| 278- 279.4 | 95% | Granite | 10R 4/4 | Equigranular | <3mm | Subangular, euhedral | Moderate hematization | Fracture | 8 | Trace biotite, trace chloritization, feldspar, qtz, trace manganese oxide | Slight 3/ft | ----- | Mineralogy can be flat and indistinct along some of the faces | No | Massive | 5R 8/4 (unaltered) |
| 279.5 -282 | 95% | Granite | 10YR 7/3 | Equigranular | <3mm | Subangular, euhedral | Little to no hematization | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz | Slight 2/ft | ----- | Appears as if the feldspar has a faint green tint, thin fine grained, gray green veins throughout, kspars altered in localized areas along a long veins of thin red | Yes | Massive | 7.5YR 8/4 |
| 283- 286 | 95% | Granite | 10R 4/4 | Equigranular | <3mm | Subangular, euhedral | Heavy hematization | Fracture | 7.5 | Trace manganese oxide, trace biotite, trace chloritization, qtz, feldspar | Moderate 5/ft | ----- | Altered and unaltered kspars, appears as if the kspars that is unaltered is unaltered in veins | No | Massive | 5R 8/4 |
| 287- 293 | 95% | Granite | 5R 4/4 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 8 | Trace manganese oxide, trace biotite, trace chloritization, qtz, feldspar, clay | Slight 4/ft Decreases with depth | ----- | Altered and unaltered kspars, unaltered appears to be in veins, multiple contacts visible on faces | No | Massive | 7.5YR 8/4 |
| 294- 298 | 95% | Granite | 10R 3/4 | Equigranular | <3mm | Subangular, euhedral | Heavy hematization | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz | Slight 3/ft | ----- | Most of the kspars altered, faces indistinct and flat, difficult to discern mineralogy in some areas | No | Massive | 5R 8/4 (unaltered) |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|---|--|--------------------------|--|------------|---------|----------------------|
| 299-306 | 95% | Granite | 7.5YR 6/3 | Equigranular | <5mm | Subangular, euhedral | Light hematization, localized areas of heavy hematization | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz | Slight 3/ft | ----- | Small hematized qtz crystals, small gray green and hematization veins throughout, mineralogy obscured along many faces by a gray-green plating or because of hematization; brecciated gray-brown vein with granite clasts in it surrounded by the dark red brown fine grained vein | Yes | Massive | 7.5YR 8/4 |
| 307-308 | 95% | Granite | 2.5R 4/4 | Equigranular | <3mm | Subangular, euhedral | Heavy hematization | Fracture | 8 | Trace manganese oxide, qtz, feldspar, trace biotite, trace chloritization | Slight 4/ft | ----- | Mineralogy flat and indistinct or obscured by hematization, gray green playing at depth 307, kspars both altered and unaltered | No | Massive | 7.5YR 8/3 |
| 309-314 | 95% | Granite | 7.5YR 6/4 | Equigranular | <4mm | Subangular, euhedral | Little to no hematization | Fracture | 8 | Trace biotite, trace chlorite, feldspar, qtz | Slight 3/ft | ----- | Small <1mm hematized qtz crystals, dark green discoloration towards end of interval, some small dark red and hematization veins | No | Massive | 7.5R 7/6 |
| 315-323 | 90% | Granite | 10YR 6/4 | Equigranular | <5mm | Subangular, euhedral | Little to no hematization throughout, kspars altered in some areas | Fracture | 7.5 | Trace pyrite, trace biotite, trace chloritization, feldspar, qtz | Slight 3/ft | ----- | Mineralogy can seem indistinct and flat from gray-green coloration, small gray-green veins throughout and dark red veins towards end, hematized locally | No | Massive | 7.5YR 8/3 |
| 324-327 | 90% | Granite | 7.5YR 7/4 | Equigranular | <5mm | Subangular, euhedral | Little to no hematization | Fracture | 8 | Trace pyrite, trace biotite, trace chloritization, feldspar, qtz | Slight 4/ft Increases with depth | ----- | Pyrite found on dark material or covering that overlies granite, could possibly be another mineral? | No | Massive | 5YR 7/6 |
| 328 | 85% | Granite | 7.5YR 5/3 | Equigranular | <5mm | Subangular, euhedral | Moderate hematization Kspars altered | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz | Slight 4/ft | ----- | Kspars altered around veins that are thin, gray-green, and slightly brecciated, qtz also appears darker around those areas, mineralogy flat and indistinct along most faces | No | Massive | 7.5YR 8/3 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|---|---------------------------------|--------------------------|---|------------|---------|----------------------|
| 329-332 | 95% | Granite | 7.5YR 4/2 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization, decreases with depth | Fracture | 7.5 | Trace pyrite, trace manganese oxide, trace biotite, trace chloritization, feldspar, qtz | Slight 4/ft | ----- | Mineralogy obscured, flat and indistinct along many faces, kspar altered around veins, greenish small striations that could be chloritization, unaltered kspar in veins | No | Massive | 2.5R 8/4 |
| 333-336 | 95% | Granite | 5R 6/4 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 8 | Trace pyrite, trace manganese oxide, trace fluorite, qtz, feldspar, trace biotite, trace chloritization | Slight 3/ft | ----- | Very small qtz vugs, sharp contact between little and heavy hematization, multiple types of veins prevalent, complete unbroken fluorite vein present | Yes | Massive | 2.5R 8/4 |
| 337-338 | 95% | Granite | 10YR 6/3 | Equigranular | <2mm | Subangular, euhedral | Little to no hematization | Fracture | 8 | Trace pyrite, trace chloritization, trace biotite, feldspar, qtz | Slight 3/ft | ----- | Much of core has faint, light green covering and hue, small localized spots of heavy hematization | No | Massive | 7.5YR 8/3 |
| 339-342 | 95% | Granite | 7.5R 6/6 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 8 | Trace pyrite, trace manganese oxide, trace biotite, trace chloritization, feldspar, qtz | Slight 3/ft | ----- | Plag and core can have faint green cast or covering, kspar altered in localized areas, contacts and veins between altered and unaltered feldspar, coloring throughout core highly variable | No | Massive | 5YR 7/6 |
| 343-346 | 90% | Granite | 7.5YR 4/3 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7 | Trace fluorite, trace biotite, trace chloritization, feldspar, qtz | Moderate 5/ft | ---- | Soft black coating and pieces, writes on paper, seen in previous depths, clearly shows layering from purple fluorite to hematization structure to the black, elsewhere mineralogy can be indistinct, flat | Yes | Massive | 5R 8/4 |
| 347-351 | 95% | Granite | 7.5YR 7/4 | Equigranular | <4mm | Subangular, euhedral | Light hematization throughout, localized areas of heavy hematization | Fracture | 8 | Trace manganese oxide, trace biotite, trace chloritization, feldspar, qtz | Slight 3/ft | ----- | Kspar altered around dark red-fine grained veins, small greenish and pink-tan veins throughout | No | Massive | 5YR 7/6 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|---|---|--------------------------|---|------------|---------|----------------------|
| 352-356 | 95% | Granite | 10YR 5/4 | Equigranular | <4mm | Subangular, euhedral | Little to no hematization throughout, localized areas of heavy hematization | Fracture | 7.5 | Minor fluorite, trace biotite, trace chloritization, qtz, feldspar | Slight 4/ft | ----- | 2mm thick purple fluorite veins throughout, kspars altered only in certain areas usually but not always around dark red veins, fluorite veins can contain pieces of granite | No | Massive | 5YR 7/6 |
| 357-360 | 90% | Granite | 7.5R 6/6 | Equigranular | <3mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 8 | Trace biotite, trace chloritization, feldspar, qtz | Slight 3/ft | ----- | Red, fine-grained veins prevalent, mineralogy can be slightly difficult to see by being flat and indistinct | No | Massive | 5YR 7/6 |
| 361-369 | 95% | Granite | 7.5YR 7/2 | Equigranular | <3mm | Subangular, euhedral | Light throughout, heavy in some areas | Fracture | 8 | Trace biotite, trace barite, trace chlorite, feldspar, qtz | Slight 4/ft | ----- | Dark red veining throughout, can be brecciated in some areas with variable thickness, qtz vugs with barite at depth, qtz crystals grew around granite | Yes | Massive | 7.5R 8/6 |
| 370-374 | 95% | Granite | 7.5YR 6/4 | Equigranular | <3mm | Subangular, euhedral | Heavy hematization along faces | Fracture | 8 | Trace manganese oxide, trace biotite, trace chloritization, feldspar, qtz | Slight 2/ft | ----- | Red, fine-grained veining prevalent throughout, can be brecciated, some small qtz vugs, kspars altered only in a few areas | No | Massive | 7.5YR 8/4 |
| 375-376 | 90% | Granite | 10R 5/8 | Equigranular | <3mm | Subangular, euhedral | Intensely hematized | Fracture | 7.5 | Trace manganese oxide, feldspar, qtz | Moderate >7/ft Decreases with depth | ----- | Mineralogy obscured on most areas by hematization, feldspar is very pink, sharp contact between altered and unaltered feldspar, could be separated by a vein | Yes | Massive | 10R 7/8 |
| 377-380 | 95% | Granite | 7.5YR 7/4 | Equigranular | <3mm | Subangular, euhedral | Light hematization throughout, heavy along some faces | Fracture | 8 | Trace biotite, trace chloritization, feldspar, qtz | Slight 2/ft | ----- | Red and gray-green veining throughout, can appear to originate from the same source | No | Massive | 5YR 7/6 |
| 381-388 | 50% | Granite | 7.5R 6/6 | Equigranular | <5mm | Subangular, euhedral | Little to no hematization | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz | Moderate 6/ft | ----- | Dark red fine-grained veining appears to alter and change color of kspars around it, Dark gray green veins throughout, can occur in tandem, both types of veining could come from same source | No | Massive | 5YR 7/6 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength /hardne ss | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|--------------------------------|--------------|------------------|----------------------------------|--------------------------|--|---------------------------|-----------------------------------|---|---------------------------------|--------------------------|---|------------|--------------------|----------------------|
| 389-397 | 95% | Granite | 7.5R 6/6 | Equigr anular | <5mm | Subangular, euhedral | Little to no hematization throughout, heavy along some faces, and increases with depth | Fracture | 7.5 | Trace biotite, trace chloritization, qtz, feldspar | Slight 3/ft | ----- | Red and gray-green veining throughout, not as prevalent as above, slightly alters and darkens core in some areas, mineralogy can be obscured by gray covering | No | Massive | 5YR 7/6 |
| 398-408 | 95% | Granite | 7.5R 6/6 | Equigr anular | <3mm | Subangular, euhedral | Light hematization throughout, heavy along certain faces | Fracture | 8 | Trace biotite, trace chloritization, qtz, feldspar | Slight 2/ft | ----- | Red and gray-green veining throughout, mineralogy can appear indistinct and flat at depth, veining decreases with depth | No | Massive | 7.5R 7/6 |
| 409-410 | 45% | Granite | 7.5R 5/6 | Equigr anular | <4mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 8 | Qtz, feldspar, trace biotite, trace chloritization | Intense 10/ft | ----- | 2 color (white and dark gray) qtz veins, hematized qtz crystals, hematized and dark red fine-grained veins, can be highly hematized in areas | Yes | Massive | 7.5R 8/6 |
| 411-412 | 40% | Matrix supported breccia | 10R 3/4 | Clastic | Very fine to medium clasts | Angular to subangular | Intensely hematized | Moderately sorted | 2 | Qtz, barite, granite, biotite, chloritization | Intense Uncountable | ----- | Matrix very soft, dark red brown in color, appears to be intensely hematized, granite clasts usually small, qtz crystallization in layers | Yes | Highly cemented | ----- |
| 413 | 50% | Matrix supported breccia | 5YR 7/2 | Clastic | Very fine to medium clasts | Angular to subangular | Light to heavy hematization, decreases with depth | Moderately sorted | 8 | Qtz, granite | Moderate 6/ft | ----- | Qtz vugs, hematized qtz, qtz broke up host rock (likely granite) and crystallized spaces in between, phenocrysts have dark red rim around them, indicates qtz grew after | Yes | Highly cemented | ----- |
| 414-415 | 50% | Granite | 7.5YR 6/8 | Equigr anular | <3mm | Subangular, euhedral | Light to heavy hematization, decreases with depth | Fracture | 7.5 | Qtz, feldspar, trace biotite, trace chloritization | Moderate 7/ft | ----- | Veining and hematization decreases with depth, depth 414 feldspar appears to be altering to something light blue-gray in color, small qtz vugs that can be hematized, dark red and qtz veining | Yes | Massive | 7.5YR 7/8 |
| 416-418 | 50% | Granite | 10YR 7/6 | Equigr anular | <4mm | Subangular, euhedral | Light to moderate hematization, local areas of heavy hematization | Fracture | 8 | Trace manganese oxide, trace biotite, trace chloritization, feldspar, qtz | Intense 8/ft | ----- | Layered qtz veining with hematized crystals, hematization decreases with depth, mineralogy can be obscured by hematization or white milky plating | Yes | Massive | 2.5YR 5/8 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|--|-------------------------------------|--------------------------|---|------------|---------|----------------------|
| 419-424 | 95% | Granite | 10YR 7/6 | Equigranular | <4mm | Subangular, euhedral | Light to moderate hematization, decreases with depth | Fracture | 8 | Trace biotite, trace chlorite, qtz, feldspar, trace clay | Light 2/ft | ----- | Dark gray-green veining throughout, mineralogy can appear flat and indistinct along certain faces, dark red veining appears to alter kspars around it | No | Massive | 5YR 6/8 |
| 425-427 | 95% | Granite | 5YR 5/6 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization, decreases with depth | Fracture | 8 | Minor pyrite, trace biotite, trace chloritization, feldspar, qtz | Light 2/ft | ----- | Qtz vein that produced hematized crustals, mineralogy can be obscured by dark gray-green veining that has pyrite over it, kspars altered in some areas around gray-green veining | No | Massive | 2.5YR 6/8 |
| 428-434.5 | 95% | Granite | 5Y 5/2 | Equigranular | <3mm | Subangular, euhedral | Light hematization | Fracture | 7.5 | Trace pyrite, trace biotite, trace chloritization, feldspar, qtz | Light 4/ft | ----- | Core has faint green-blue tint throughout, can be obscured by covering of same color on many faces, gray-green veins, reddish pink veining that discolored surrounding core, plagioclase looks green | No | Massive | 7.5YR 8/4 |
| 434.6 - 443.5 | 95% | Granite | 2.5Y 6/5 | Equigranular | <4mm | Subangular, euhedral | Little to moderate hematization, increases with depth in localized areas | Fracture | 8 | Trace pyrite, trace biotite, trace chloritization, feldspar, qtz | Light 3/ft | ----- | 1 qtz vein with qtz vug, mineralogy can be flat and indistinct, obscured by blue gray covering or coloring, not many fresh faces | No | Massive | 5YR 7/6 |
| 443.6 - 448 | 95% | Granite | 5YR 5/6 | Equigranular | <4mm | Subangular, euhedral | Little to no hematization | Fracture | 8 | Trace pyrite, minor biotite, minor chloritization, qtz, feldspar | Light 3/ft | ----- | Qtz veining cuts through gray-green veining, qtz vugs small, mineralogy can be obscured, flat, and indistinct along some faces, dark gray covering that pyrite overlies, greenish tint lighter than above | No | Massive | 2.5YR 6/8 |
| 449-452 | 95% | Granite | 7.5YR 5/2 | Equigranular | <4mm | Subangular, euhedral | Little to no hematization | Fracture | 7.5 | Trace biotite, trace chloritization, feldspar, qtz, trace pyrite | Light 3/ft Moderate at depth 452 | ----- | Mineralogy can be flat and indistinct, plagioclase has greenish tint like above, gray-green veining throughout | Yes | Massive | 5YR 5/6 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|------------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|--|---|--------------------------|--|------------|---------|----------------------|
| 453-461 | 85% | Granite | 5YR 5/2 | Equigranular | <3mm | Subangular, euhedral | Little to no hematization, increases sharply near end of interval | Fracture | 8 | Trace pyrite, trace biotite, trace chloritization, feldspar, qtz | Moderate 6/ft Uncountable in some areas | ----- | Mineralogy can be obscured by gray-green covering that pyrite often overlies, veining in depth 261 that altered plagioclase around it, also marks sudden hematization increase, gray-green veins prevalent throughout, feldspar can be green | Yes | Massive | 2.5YR 6/6 |
| 462-464 | 95% | Granite | 5YR 6/6 | Equigranular | <3mm | Subangular, euhedral | Little to no hematization except depth 464-heavy hematization | Fracture | 8 | Trace pyrite, trace biotite, trace chloritization, qtz, feldspar | Light 4/ft | ----- | Faces a little fresher and less altered than previous depths, hematized quartz crystallization along fracture, quartz grew out from core-distinct contact, gray-green veining throughout that can alter plagioclase | Yes | Massive | 2.5R 7/4 |
| 465-466 | 95% | Granite | 5R 6/4 | Equigranular | <4mm | Subangular, euhedral | Little to none | Fracture | 7.5 | Trace biotite, trace chloritization, trace pyrite, qtz, feldspar | Light 3/ft | ----- | Faces flat and indistinct along most faces, gray-green-red with a pearly luster, plagioclase can have greenish tint, quartz vein overlies gray-green vein | No | Massive | 5YR 7/6 |
| 467-473 | 45% | Granite | 5R 5/4 | Equigranular | <4mm | Subangular, euhedral | Slight to moderate hematization, increases with depth | Fracture | 8 | Trace pyrite, trace biotite, trace chloritization, feldspar, qtz | Moderate 6/ft | ----- | Can have holes with nothing or something I am unable to see (3mm radius), quartz veining, greenish covering that can obscure mineralogy, plagioclase has greenish tint, quartz veining appears to have altered core and caused hematization | Yes | Massive | 10R 7/4 |
| 474-479 | 95% | Granite | 5R 5/4 | Equigranular | <3mm | Subangular, euhedral | Little to no hematization | Fracture | 8 | Trace pyrite, trace biotite, trace chloritization, qtz, feldspar | Slight 4/ft | ----- | Mineralogy flat and indistinct along some faces, obscured by gray-green covering along most of the others, gray-green veining throughout, altered plagioclase in some areas | No | Massive | 10R 6/6 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|-------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|---|---------------------------------|--------------------------|---|------------|---------|----------------------|
| 480-488 | 95% | Granite | 5R 5/4 | Equigranular | <3mm | Subangular, euhedral | Little hematization throughout, heavy in localized areas | Fracture | 8 | Trace pyrite, trace biotite, trace chloritization, feldspar, qtz | Slight 4/ft | ----- | Mineralogy obscured in most areas by gray green-covering that can be massive or plate-like, feldspars can have greenish tint, hematization occurred in vein with specularite | No | Massive | 10R 6/6 |
| 489-491 | 95% | Granite | 2.5R 5/4 | Equigranular | <5mm | Subangular, euhedral | Light hematization throughout, heavy in localized areas | Fracture | 8 | Trace pyrite, trace manganese oxide, trace biotite, trace chloritization | Slight 4/ft | ----- | Mineralogy can be flat and indistinct or obscured by gray-green covering, small qtz veining and vugs | No | Massive | 10R 6/6 |
| 492-493 | 95% | Granite | 5YR 7/6 | Equigranular | <4mm | Subangular, euhedral | Light hematization throughout, heavy in some areas | Fracture | 8 | Trace biotite, trace chloritization, feldspar, trace manganese, qtz | Slight 3/ft | ----- | Qtz veining prevalent throughout, can appear almost brecciated with granite, small offshoots of the qtz vein that went through the granite, 5mm qtz crystals right across 2mm hematized qtz crystals | Yes | Massive | 5R 8/4 |
| 494-497 | 95% | Granite | 5R 5/6 | Equigranular | <3mm | Subangular, euhedral | Little to no hematization | Fracture | 8 | Trace pyrite, trace biotite, trace chloritization, qtz, feldspar | Slight 3/ft | ----- | Mineralogy can be obscured by gray-green covering, gray-green veining throughout | No | Massive | 7.5R 7/6 |
| 498-507 | 95% | Granite | 5R 5/4 | Equigranular | <3mm | Subangular, euhedral | Moderate hematization | Fracture | 8 | Trace pyrite, trace biotite, trace chloritization, feldspar, qtz | Slight 3/ft | ----- | Mineralogy can be obscured by gray-green covering, gray-green and orange hematization veins throughout | No | Massive | 5YR 6/6 |
| 508-516 | 90% | Granite | 5YR 6/2 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 8 | Trace pyrite, trace manganese oxide, trace biotite, trace chloritization, feldspar, qtz | Moderate 5/ft | ----- | Veins prevalent-qtz, gray-green, and hematization, areas of small 3mm qtz crystal growth that is not hematized, mineralogy can be obscured by gray-green covering | No | Massive | 10R 6/6 |
| 517-525 | 90% | Granite | 5YR 5/2 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7.5 | Trace pyrite, trace manganese oxide, trace biotite, trace chloritization, qtz, feldspar | Light 4/ft | ----- | Mineralogy can be obscured by gray-green discoloration and covering, hematization veins, qtz veins with small vugs, qtz crystallization can be hematized, possible barite, kspars can be altered around veins | Yes | Massive | 10R 6/6 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|--|---------------------------|-------------------------------|---|---------------------------------|--------------------------|--|------------|---------|----------------------|
| 526-528 | 95% | Granite | 2.5R 6/4 | Equigranular | <3mm | Subangular, euhedral | Light to moderate hematization | Fracture | 7.5 | Trace pyrite, trace biotite trace chloritization, feldspar, qtz | Light 3/ft | ----- | Qtz crystallization with small vugs and veins, kspars more orange around qtz crystals, mineralogy can be obscured by gray-green covering and discoloration, dodecahedron pyrite crystals on qtz | No | Massive | 10R 8/4 |
| 529-534 | 45% | Granite | 2.5R 6/4 | Equigranular | <5mm | Subangular, euhedral | Little to no hematization | Fracture | 8 | Trace biotite, trace chloritization, qtz, feldspar | Moderate 7/ft | ----- | Small brecciated gray-green veins in one area, qtz veins throughout, feldspar has greenish tint, some small qtz crystallization | No | Massive | 2.5YR 6/6 |
| 535-536 | 45% | Granite | 5YR 5/2 | Equigranular | <4mm | Subangular, euhedral | Moderate hematization throughout, heavy in some areas | Fracture | 7.5 | Trace biotite, trace chloritization, qtz, feldspar | Moderate 8/ft | ----- | Kspars can be altered by hematization | No | Massive | 2.5R 7/4 |
| 537-538 | 50% | Granite | 2.5Y 6/2 | Equigranular | <4mm | Subangular, euhedral | Little to no hematization | Fracture | 8 | Trace biotite, trace chloritization, qtz, feldspar | Moderate 7/ft | ----- | Blue greenish cast, covering, and veins throughout core, feldspar can have green tint, mineralogy can be obscured | Yes | Massive | 2.5YR 6/6 |
| 539-545 | 95% | Granite | 7.5YR 6/2 | Equigranular | <4mm | Subangular, euhedral | Little hematization throughout, moderate in some areas | Fracture | 7.5 | Trace pyrite, trace biotite, trace chlorite, trace chloritization, qtz, feldspar | Slight 4/ft | ----- | Mineralogy can be obscured by greenish gray covering or tint, trace pyrite at depth, thin green gray and reddish brown veins throughout that can alter surrounding kspars, feldspar can have greenish tint | No | Massive | 2.5YR 7/8 |
| 546-550 | 45% | Granite | 2.5YR 7/2 | Equigranular | <3mm | Subangular, euhedral | Little to no hematization | Fracture | 8 | Yellow mineral in qtz vug (citric?), trace biotite, trace chloritization, feldspar, qtz | Moderate 7/ft | ----- | Feldspar has greenish tint, gray-green covering on many of the faces-some of it likely chlorite, mineralogy can be indistinct and obscured, small qtz vug | No | Massive | 10R 7/6 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|--|---------------------------------|--------------------------|--|------------|---------|----------------------|
| 551-552 | 50% | Granite | 2.5YR 6/2 | Equigranular | <4mm | Subangular, euhedral | Little to no hematization | Fracture | 7.5 | Trace biotite, trace chloritization, qtz, feldspar | Moderate 6/ft | ----- | Feldspar has greenish tint, mineralogy can appear flat and indistinct, dark gray-green covering on some of the faces | No | Massive | 10R 6/6 |
| 553-559 | 45% | Granite | 5R 6/4 | Equigranular | <3mm | Subangular, euhedral | Little to no hematization throughout, moderate at end of interval | Fracture | 8.5 | Trace pyrite, trace biotite, trace chloritization, qtz, feldspar | Intense 9/ft | ----- | Feldspar can have greenish tint, greenish-gray covering on some of the core, qtz crystallization with pyrite nearby-altered qtz to reddish color | No | Massive | 2.5YR 6/6 |
| 560-561 | 95% | Granite | 2.5R 5/4 | Equigranular | <5mm | Subangular, euhedral | Little hematization throughout, moderate in some areas | Fracture | 8 | Trace pyrite, qtz, feldspar | Slight 4/ft | ----- | Brecciated dark red veining associated with qtz vein-unable to tell which came first unless they both came from same source?, hematized and unhematized vugs, pyrite growth in qtz, red veining sandwiches qtz veining | Yes | Massive | 10R 6/6 |
| 562-570 | 95% | Granite | 5R 5/4 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 8 | Qtz, feldspar, trace biotite, chloritization, chlorite | Slight 2/ft | ----- | Hematization and gray green veins throughout, kspars can be altered around hematization vein, most of core has faint green tint not just the feldspar | No | Massive | 2.5YR 6/6 |
| 571-578 | 95% | Granite | 5YR 5/2 | Equigranular | <3mm | Subangular, euhedral | Moderate hematization along fractures | Fracture | 7.5 | Qtz, feldspar, trace biotite, chloritization | Slight 3/ft | ----- | Core and feldspar as greenish tint, faces can be obscured by gray green covering, green veining throughout, small qtz crystallization along fracture | No | Massive | 2.5YR 6/6 |
| 579-580 | 75% | Granite | 2.5YR 5/6 | Equigranular | <3mm | Subangular, euhedral | Moderate hematization | Fracture | 7.5 | Qtz, feldspar | Intense >10/ft | ----- | Core redder and more fractured than previous interval, mineralogy difficult to discern-covered by gray-green covering or hematization,, feldspar altered around red veining | No | Massive | 10R 7/6 |
| 581-591 | 95% | Granite | 2.5R 5/4 | Equigranular | <3mm | Subangular, euhedral | Light hematization throughout, heavy along some faces | Fracture | 7.5 | Trace pyrite, trace biotite, trace chloritization, qtz, feldspar, chlorite | Slight 2/ft | ----- | Greenish cast throughout core and feldspar, qtz vein and vug that contains pyrite within, green and hematization veining throughout, mineralogy can be obscured by green veining | No | Massive | 2.5YR 6/6 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|--|---------------------------------|--------------------------|--|------------|---------|----------------------|
| 592-598 | 90% | Granite | 5R 6/4 | Equigranular | <4mm | Subangular, euhedral | Little hematization throughout, heavy in localized areas | Fracture | 8 | Trace pyrite, trace biotite, chloritization, qtz, feldspar, trace fluorite, trace barite | Slight 4/ft | ----- | Qtz veining and vugs throughout, qtz hematized after depth 592, often associated with dark red fine-grained veining that brecciated the qtz, qtz can also cut across the red veining, pyrite associated with qtz | Yes | Massive | 2.5YR 6/6 |
| 599-601 | 50% | Granite | 10R 5/6 | Equigranular | <4mm | Subangular, euhedral | Light to moderate hematization | Fracture | 7.5 | Qtz, feldspar, trace biotite, trace chloritization | Moderate 8/ft | ----- | Feldspar does not have greenish cast, small qtz and red veins that alter surrounding feldspar | No | Massive | 2.5R 6/6 |
| 602-608 | 45% | Granite | 2.5YR 6/6 | Equigranular | <4mm | Subangular, euhedral | Light hematization throughout, heavy in certain areas | Fracture | 7 | Trace fluorite, trace biotite, chloritization, feldspar, qtz | Moderate 7/ft | ----- | Feldspar has greenish tint, hematization veins and qtz vein with small vugs, fine grained green vein that cut across purple fluorite | Yes | Massive | 2.5YR 6/8 |
| 609-611 | 45% | Granite | 10R 4/4 | Equigranular | <5mm | Subangular, euhedral | Heavy hematization | Fracture | 7.5 | Trace biotite, trace chloritization, trace manganese oxide, feldspar, qtz | Moderate 7/ft | ----- | Marks transition from green feldspar to hematization, hematization heavy enough to obscure mineralogy | No | Massive | 10R 7/6 |
| 612-616 | 50% | Granite | 10YR 6/2 | Equigranular | <4mm | Subangular, euhedral | Light hematization, decreases with depth, marks transition from above | Fracture | 7.5 | Trace biotite, chloritization, qtz, feldspar | Moderate 6/ft | ----- | Feldspar has green tint, slight hematization end of interval, mineralogy can look flat and indistinct from green-brown covering | No | Massive | 2.5YR 6/6 |
| 618-620 | 50% | Granite | 2.5R 5/4 | Equigranular | <4mm | Subangular, euhedral | Heavy hematization | Fracture | 7 | Trace manganese oxide, trace biotite, trace chloritization, qtz, feldspar | Moderate 7/ft | ----- | Hematization turns yellow orange at end of depth, mineralogy can appear flat and indistinct or obscured by hematization | No | Massive | 10R 6/8 |
| 621-624 | 95% | Granite | 5YR5/ 6 | Equigranular | <5mm | Subangular, euhedral | Heavy hematization | Fracture | 8 | Trace biotite, trace chloritization, feldspar, qtz | Slight 4/ft | ----- | Hematized qtz crystals, core broken along qtz veins, some small vugs, orangeish and red veining throughout that can alter feldspar to a bright orange-pink that sharply contrasts with gray qtz | No | Massive | 2.5YR 7/8 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|-------------|------------------------------------|-----------|--------------|--------------|--------------------|-------------------------|---|---------------------------|-------------------------------|--|---------------------------------|--------------------------|--|------------|---------|----------------------|
| 625- 626 | 95% | Granite | 7.5YR 6/4 | Equigranular | <3mm | Subangular, euhedral | Little to no hematization, slight hematization at start of interval | Fracture | 7.5 | Trace biotite, chloritization, qtz, feldspar, chlorite | Slight 2/ft | ----- | Feldspar is unaltered but core has dark green areas that could be chloritization, feldspar not as brightly colored as above, chloritization increases with depth and can cover depths 627-628 | No | Massive | 7.5YR 8/2 |

START OF HOLE 3 DRILL LOG—TAJO GRANITE, SOCORRO COUNTY, NEW MEXICO

HOLE NUMBER ARCH-3 DATE STARTED 07/13/20 COMPLETED _____ LOGGED BY HD CORE CUTTINGS

LOCATION (NAD27) 34.045954, -106.803236 COLAR ELEVATION 5046 ft WEATHER Logged indoors

BOX NUMBER 1-24 INCLINATION 90 BEARING _____ SOP 17 DEVIATION FROM SOP All colors taken from wet core

COMMENTS Feldspar coloring always taken from the potassium feldspar

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|-------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|--------------------------------|---------------------------|-------------------------------|--|--|--------------------------|---|------------|---------|----------------------|
| 0-17 | 85% | Granite | 10YR 5/4 | Equigranular | <4mm | Subangular, euhedral | Light hematization | Fracture | 7 | Trace muscovite, trace biotite, feldspar, qtz, minor manganese oxide | Moderate 6/ft | ----- | Green brown veining prevalent throughout, mineralogy can be indistinct, undefined and difficult to discern | Yes | Massive | 5R 8/4 |
| 18-24 | 85% | Granite | 2.5R 6/4 | Equigranular | <4mm | Subangular, euhedral | Little to no hematization | Fracture | 7.5 | Trace muscovite, trace biotite, chloritization, qtz, feldspar, trace manganese oxide | Slight 4/ft | ----- | Green brown and tan pink veining throughout, mineralogy can appear flat, indistinct and difficult to discern | No | Massive | 10R 8/4 |
| 25-33 | 95% | Granite | 7.5YR 5/2 | Equigranular | <4mm | Subangular, euhedral | Little to no hematization | Fracture | 7 | Trace muscovite, trace biotite, minor manganese oxide, qtz, feldspar, chloritization | Moderate 5/ft | ----- | Mineralogy can appear flat and indistinct-covered by greenish gray tinting or manganese oxide or some other form of alteration along most faces, green-brown and brown veining throughout | No | Massive | 5R 8/4 |
| 34-42 | 85% | Granite | 7.5YR 5/3 | Equigranular | <2mm | Subangular, euhedral | Light to moderate hematization | Fracture | 7.5 | Trace U-mineral, trace manganese oxide, qtz, feldspar, minor biotite, chloritization | Slight 4/ft Decreases with depth | ----- | U-mineral possible-thin light, bright green powder at beginning of interval, mineralogy can appear flat and indistinct-decreases with depth, faces fresher and less altered at beginning of interval, very fine grained granite | Yes | Massive | 10R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|-------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|---|---------------------------------|--------------------------|---|------------|---------|----------------------|
| 43-51 | 95% | Granite | 7.5YR 5/2 | Equigranular | <3mm | Subangular, euhedral | Light hematization throughout, moderate in some areas | Fracture | 8 | Minor manganese oxide, qtz, feldspar, trace biotite, chloritization | Slight 4/ft | ----- | Mineralogy obscured along faces-looks flat indistinct, and featureless-could be from manganese oxide, chloritization, or some other form of alteration, green brown and green veining prevalent throughout, core can be altered around it, core can appear brecciated by veining | No | Massive | 10R 7/6 |
| 52-60 | 95% | Granite | 2.5YR 5/2 | Equigranular | <5mm | Subangular, euhedral | Light hematization throughout, moderate in some areas | Fracture | 8 | Minor manganese oxide, qtz, feldspar, chloritization, trace biotite | Slight 3/ft | ----- | Mineralogy often flat, obscured, and indistinct, green-brown and brown veining throughout, appears as if core can break along veining | Yes | Massive | 10R 7/4 |
| 61-69 | 95% | Granite | 2.5YR 5/2 | Equigranular | <3mm | Subangular, euhedral | Light hematization, moderate in some areas | Fracture | 8 | Trace manganese oxide, trace biotite, feldspar, qtz, chloritization | Slight 3/ft | ----- | Mineralogy flat and indistinct, can be obscured by discoloration, manganese oxide, or other alteration such as chloritization, sharp contacts between indistinct and fresher granite along some of the faces | Yes | Massive | 10R 7/4 |
| 70-78 | 95% | Granite | 2.5R 6/4 | Equigranular | <3mm | Subangular, euhedral | Light hematization, moderate in some areas | Fracture | 7.5 | Minor manganese oxide, qtz, feldspar, trace biotite, chloritization | Slight 3/ft | ----- | Green-brown and brown veining prevalent, can appear that it brecciates core because of amount and how thin the veins are, mineralogy often flat and obscured, ksp coloring fluctuates from pink to tan to back to pink | No | Massive | 10R 7/4 (pink) |
| 79-82 | 95% | Granite | 2.5YR 4/2 | Equigranular | <3mm | Subangular, euhedral | Light to moderate hematization | Fracture | 7.5 | Trace manganese oxide, qtz, feldspar, trace biotite, chloritization | Moderate 5/ft | ----- | Brown red discoloration prevalent throughout core, could be from hematization, mineralogy can be obscured, covered, and indistinct or flat along faces, difficult to discern mineralogy, red brown coloring not really in veins, appears to surround the qtz and feldspars, sometimes alters feldspar | Yes | Massive | 2.5R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|-------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|---------------------------------------|---------------------------|-------------------------------|---|---------------------------------------|--------------------------|--|------------|---------|----------------------|
| 83-87 | 95% | Granite | 5YR 5/2 | Equigranular | <4mm | Subangular, euhedral | Light hematization throughout | Fracture | 7.5 | Minor manganese oxide, qtz, feldspar, trace biotite, chloritization | Slight 4/ft | ----- | None of red-brown coloration as seen above, green-brown veins prevalent, mineralogy flat and obscured along most faces, could be by chloritization, manganese oxide, or other alteration process, veining decreases with depth | No | Massive | 2.5R 7/4 |
| 88-89 | 95% | Granite | 7.5YR 5/2 | Equigranular | <3mm | Subangular, euhedral | Little to no hematization | Fracture | 8 | Trace manganese oxide, trace biotite, qtz, feldspar, chloritization | Slight 2/ft | ----- | Some green veining, mineralogy obscured and indistinct, could be from chloritization or other alteration, has few fractures and veining | No | Massive | 2.5R 7/4 |
| 90-93 | 95% | Granite | 10R 4/2 | Equigranular | <2mm | Subangular, euhedral | Light to moderate hematization | Fracture | 7.5 | Trace manganese oxide, trace biotite, qtz, feldspar, chloritization | Moderate 5/ft Decreases with depth | ----- | Reddish brown discoloration and green brown veining throughout, appears to brecciate core in certain areas because of prevalence, appears to alter some of the feldspar to the same color | Yes | Massive | 2.5R 8/4 |
| 94-97 | 95% | Granite | 7.5YR 7/4 | Equigranular | <3mm | Subangular, euhedral | Little to no hematization | Fracture | 7.5 | Trace biotite, qtz, feldspar, chloritization | Slight 3/ft | ----- | Green and green brown veining prevalent throughout, appears as if it can brecciate core, faces a little fresher than previous depths but can still be obscured by some sort of alteration such as chloritization, no manganese oxide-interesting correlation | Yes | Massive | 2.5YR 7/6 |
| 98-99 | 95% | Granite | 5R 6/4 | Equigranular | <4mm | Subangular, euhedral | Little to no hematization | Fracture | 7.5 | Trace biotite, qtz, feldspar, chloritization | Slight 3/ft | ----- | Pink brown fine grained vein, some greenish veining, mineralogy can appear somewhat flat and indistinct, still slightly fresher than previous depths | No | Massive | 2.5YR 7/6 |
| 100 | 95% | Granite | 5Y 5/2 | Equigranular | <2mm | Subangular, euhedral | Light hematization to no hematization | Fracture | 7 | Trace manganese oxide, trace biotite, qtz, feldspar, chloritization | Moderate 5/ft | ----- | Mineralogy obscured along all faces, all of core looks green gray and altered, feldspar looks altered, qtz can be colored, some pink brown veins that are staggered and discontinuous | Yes | Massive | 5R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|-----------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|---|-------------------------------------|--------------------------|--|------------|---------|----------------------|
| 101-106 | 90% | Granite | 10YR 5/2 | Equigranular | <4mm | Subangular, euhedral | Little to no hematization, moderate in some areas | Fracture | 7.5 | Minor manganese oxide, feldspar, qtz, trace biotite, chloritization | Slight 2/ft | ---- | Thin green veining prevalent throughout, decreases with depth, mineralogy can be flat and indistinct or obscured by manganese oxide, chloritization, or some other alteration | No | Massive | 7.5YR 8/3 |
| 107-115 | 95% | Granite | 7.5YR 6/2 | Equigranular | <3mm | Subangular, euhedral | Little to no hematization, moderate in some areas | Fracture | 8 | Minor manganese oxide, feldspar, qtz, trace biotite, trace chloritization | Slight 4/ft | ----- | Green veining prevalent, faces can be obscured by manganese oxide, chloritization, or other alteration, some of core can have strange striation pattern (see picture), pink brown veining at depth 114 | Yes | Massive | 5R 8/4 |
| 116-125 | 95% | Granite | 7.5YR 6/2 | Equigranular | <3mm | Subangular, euhedral | Little to no hematization, moderate in some areas | Fracture | 7.5 | Minor manganese oxide, feldspar, qtz, trace biotite, trace chloritization | Slight 4/ft Decreases with depth | ----- | Green veining throughout, faces can be obscured by manganese oxide, chloritization or some other alteration | No | Massive | 10R 7/4 |
| 126-129 | 95% | Granite | 10YR 5/3 | Equigranular | <5mm | Subangular, euhedral | Little to no hematization | Fracture | 8 | Minor manganese oxide, feldspar, qtz, trace biotite, chloritization | Slight 2/ft | ----- | Mineralogy a little fresher than above, green veining throughout, faces can appear flat and indistinct or be obscured by manganese oxide, chloritization, or some other alteration | No | Massive | 10R 8/4 |
| 130-134 | 50% | Granite | 10R 5/4 | Equigranular | <2mm | Subangular, euhedral | Light to moderate hematization | Fracture | 7.5 | Minor manganese oxide, feldspar, qtz, trace biotite, chloritization | Moderate 8/ft | ----- | Green and green brown veining throughout-can be seen clearly on faces and how it has altered or caused alteration of the feldspar in certain areas, core no longer cylindrical and appears split in half, prevalent green discoloration with depth | Yes | Massive | 7.5R 6/6 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|--------------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|---|---------------------------------|--------------------------|---|------------|---------|----------------------|
| 135-144 | 95% | Granite | 5YR 5/6 | Equigranular | <3mm | Subangular, euhedral | Moderate hematization | Fracture | 7.5 | Trace manganese oxide, feldspar, qtz, trace biotite, chloritization | Slight 2/ft | ----- | Beginning also marks transition, some green-brown discoloration and small veining but not much, pink-brown vein, reddish orange granite with some green, faces are slightly indistinct | Yes | Massive | 2.5YR 6/6 |
| 145-152 | 90% | Granite | 5YR 5/6 | Equigranular | <3mm | Subangular, euhedral | Moderate hematization, increases lightly with depth | Fracture | 7.5 | Trace manganese oxide, feldspar, qtz, trace biotite, chloritization | Slight 3/ft | ----- | Tan pink veining, could be altered feldspar?, that a qtz vein cuts across, mineralogy can appear indistinct on some of the faces, some green discoloration at beginning of interval | Yes | Massive | 2.5YR 6/6 |
| 153-161 | 95% | Granite | 2.5R 5/4 | Equigranular | <3mm | Subangular, euhedral | Light to moderate hematization | Fracture | 7.5 | Trace manganese oxide, feldspar, qtz, trace biotite, chloritization | Light 3/ft | ----- | Some very small thin black veins in large vein or alteration area that is tan, fine grained and appears to have altered core around it, sharp contact between that and granite | Yes | Massive | 2.5R 6/4 |
| 162-163 | 95% | Granite | 5R 5/4 | Equigranular | <4mm | Subangular, euhedral | Light to moderate hematization | Fracture | 7.5 | Feldspar, qtz, trace biotite, chloritization | Light 3/ft | ----- | Mineralogy can be indistinct and difficult to discern, could be from chloritization or some other alteration | No | Massive | 2.5YR 6/6 |
| 164-166 | 95% | Granite | 2.5R 4/4 | Equigranular | <5mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 7 | Trace manganese oxide, feldspar, qtz, trace biotite, chloritization | Light 4/ft | ----- | Small qtz crystals on one of faces, not very well defined, red brown or orange discoloration throughout, end of interval marks transition, green brown discoloration and veining | No | Massive | 2.5R 8/4 |
| 167-170 | 95% | Granite | 7.5YR 5/2 | Equigranular | <4mm | Subangular, euhedral | Light to moderate hematization | Fracture | 7.5 | Trace manganese oxide, feldspar, qtz, trace biotite, chloritization | Light 3/ft | ----- | Mineralogy can appear flat and indistinct along some faces, could be from chloritization or other alteration, green brown discoloration throughout but not very pervasive, core can be altered to tan, fine grained substance similar to seen above (153) | No | Massive | 5R 8/4 |

| Depth | % Recovery/ size of core/RDQ | Lithology | Color | Texture | Phenocryst Size | Phenocryst Shape | Alteration/ weathering | Structure/ orientation | Rock strength/ hardness | Mineralogy | Fractures/fracture frequency | Contact of lower unit | Comments | Photograph | Fabric | Feldspar coloring |
|---------|------------------------------------|-----------|-----------|--------------|--------------------|----------------------|---|---------------------------|-------------------------------|---|---------------------------------|--------------------------|--|------------|---------|----------------------|
| 171-179 | 90% | Granite | 10YR 5/1 | Equigranular | <3mm | Subangular, euhedral | Light to moderate in some areas | Fracture | 7 | Feldspar, qtz, trace biotite, chloritization | Light 4/ft | ----- | Mineralogy can be flat and indistinct some areas, can be obscured by alteration such as chloritization, green veins throughout, can brecciate core | No | Massive | 5R 7/4 |
| 180-184 | 50% | Granite | 5R 6/4 | Equigranular | <4mm | Subangular, euhedral | Light to moderate hematization | Fracture | 8 | Feldspar, qtz, trace biotite, chloritization | Moderate 5/ft | ----- | Gray-green discoloration throughout, could be chloritization, spotty areas of hematization, brown-pink fine grained veins cut across by green veins | No | Massive | 10R 8/4 |
| 185-189 | 50% | Granite | 5R 5/4 | Equigranular | <4mm | Subangular, euhedral | Moderate to heavy hematization | Fracture | 8 | Trace fluorite, feldspar, qtz, trace biotite, chloritization, manganese oxide | Moderate 5/ft | ----- | Pervasive hematization, some of green gray coloration visible, slightly vuggy in one area-no crystals but associated with trace fluorite, hematization veining present | No | Massive | 2.5R 8/4 |
| 190-197 | 95% | Granite | 2.5Y 5/2 | Equigranular | <3mm | Subangular, euhedral | Little to moderate hematization, decreases substantially with depth | Fracture | 7.5 | Trace fluorite, trace manganese oxide, trace biotite, feldspar, qtz, chloritization | Light 3/ft | ----- | Hematization decreases substantially with depth, red vein altered feldspar around it, vein also appears to be associated with fluorite, interesting veining and structure at end of interval, mineralogy obscured most faces by manganese oxide, chloritization, or other alteration, core is rather green in most areas | Yes | Massive | 2.5R 7/4 |
| 198-206 | 95% | Granite | 5R 6/4 | Equigranular | <4mm | Subangular, euhedral | Light to moderate hematization | Fracture | 7.5 | Qtz, feldspar, trace biotite, chloritization | Light 3/ft | ----- | Mineralogy can be flat and indistinct, can be obscured by hematization, chloritization, or other alteration, faces appear to be fresher, very little veining | No | Massive | 5R 7/4 |
| 207-216 | 95% | Granite | 7.5YR 5/2 | Equigranular | <4mm | Subangular, euhedral | Light to moderate hematization, decreases with depth | Fracture | 7.5 | Trace manganese oxide, trace biotite, qtz, feldspar, chloritization | Light 3/ft | ----- | Some red veins that altered surrounding feldspar, green-gray veining, light dull green and rounded spots on core that light altered granite | Yes | Massive | 2.5R 8/4 |

