

Allegiance Metals Drill Log

| Project | BHID | From | To | Stratigraph | Rock Type | Alteration | Colour | Visual S% | L. Cont. | Struct | BCA | Description |
|---------|------|------|------|-------------|-----------|------------|--------|-----------|----------|--------|-----|--|
| Pontiac | P003 | 0 | 0.5 | | LOSS | | | | | | | Soil, no core recovered. |
| Pontiac | P003 | 0.5 | 9.8 | Cba | VBLM | AcDi | G3 | 0.00 | Ft | Bd | 85 | Massive basaltic lithic volcanoclastic sst. Intensely actinolite-diopside altered. Graded Beds with silica-diopside altered siltstone tops. |
| Pontiac | P003 | 9.8 | 10.8 | | FALT | ChAc | G5 | 0.00 | Ft | | | Very broken core, core loss of 0.3m. Chloritic fault. |
| Pontiac | P003 | 10.8 | 17.1 | Cba | VBLM | AcMt | A4 | 0.00 | Sp | Bd | 70 | Massive basaltic lithic volcanoclastic sst. Intensely actinolite-diopside altered. Abundant (10-15%) tourmaline-magnetite-carbonate (magnesite??) veins and disseminations. Disrupted bedding and mild brecciation. Strongly magnetic. |
| Pontiac | P003 | 17.1 | 18.3 | Cba | VBLM | Di | A1 | 0.00 | Sp | Db | 50 | Pale grey, diopside altered finely laminated volcanoclastic sst. |
| Pontiac | P003 | 18.3 | 24.8 | Cba | VBLM | AcMt | A4 | 0.00 | Sp | Bd | 70 | Massive basaltic lithic volcanoclastic sst. Intensely actinolite-diopside altered. Abundant (10-15%) tourmaline-magnetite-carbonate (magnesite??) veins and disseminations. Disrupted bedding and mild brecciation. Strongly magnetic. |
| Pontiac | P003 | 24.8 | 30.8 | Cba | VBLM | AcDi | G3 | 0.10 | Ft | Bd | 30 | Massive basaltic lithic volcanoclastic sst. Intensely actinolite-diopside altered. Abundant (10-15%) tourmaline clots and veins. Minor pyrite on joint surfaces. |
| Pontiac | P003 | 30.8 | 33.1 | Cba | VBLM | Di | A1 | 0.00 | Gr | | | Intensely altered, veined, brecciated and annealed volcanoclastic?? Completely replaced by granular silica, diopside and minor carbonate?? |
| Pontiac | P003 | 33.1 | 34.7 | Cba | VBVF | AcSi | A2 | 0.00 | Sp | | | Purple, grey and green siltstone. Intensely altered and metasomatised. Replaced with act-diop-sil? |
| Pontiac | P003 | 34.7 | 35.5 | Cba | SKRN | ToAx | G3 | 0.00 | Gr | | | Tourmaline-actinolite-axinite skarn? Possibly replacing basalt dyke?? |
| Pontiac | P003 | 35.5 | 41.4 | Cba | VBVF | AcSi | A2 | 0.00 | Sp | | | Purple, grey and green siltstone. Intensely altered and metasomatised. Replaced with act-diop-sil? |
| Pontiac | P003 | 41.4 | 49.1 | Cba | VBLM | AcTo | N | 0.50 | Gr | Bd | 45 | Laminated to massive basaltic lithic volcanoclastic sst. Intensely act-tourmaline altered. Minor magnesite?? Veining. Late pyrite veins (0.5%). |
| Pontiac | P003 | 49.1 | 63.9 | Cba | VBLM | AcDi | G3 | 0.10 | Ft | Bd | 30 | Massive basaltic lithic volcanoclastic sst. Intensely actinolite-diopside altered. Abundant (10-15%) tourmaline clots and veins. Minor pyrite on joint surfaces. Blebs and veins of magnesite-magnetite alteration. |
| Pontiac | P003 | 63.9 | 79.2 | Ccc | GWAC | Ph | B3 | 0.00 | Ir | Bd | 80 | Massive, graded bedded, feld-qtz?- Lithic greywacke. Pervasive phlog-bio altered. Late act veining. Bedding facing down hole. |
| Pontiac | P003 | 79.2 | 82 | Cba | LBA | Ac | G3 | 0.50 | Ir | | | Basaltic peperitic dyke?? Intense actinolite alteration. Minor late py veins. Brecciated. |

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| Pontiac | P003 | 82 | 90 | Ccc | GWAC | Ph | B3 | 0.00 | Ir | Bd | 80 | Massive, graded bedded, feld-qtz?- Lithic greywacke. Pervasive phlog-bio altered. Late act veining. Minor basaltic dykes? and act alteration. |
| Pontiac | P003 | 90 | 95.5 | Cba | SKRN | ToAx | G3 | 0.00 | Gr | | | Tourmaline-actinolite-axinite skarn? Possibly replacing basalt dyke intruding hornfelded greywacke.?? |
| Pontiac | P003 | 95.5 | 102.6 | Ccc | GWAC | Ph | B3 | 0.00 | Ir | | | Massive, graded bedded, feld-qtz?- Lithic greywacke. Pervasive phlog-bio altered. Late act veining. |
| Pontiac | P003 | 102.6 | 112.7 | Cba | VBLM | AcTo | N | 0.10 | Gr | Bd | 45 | Laminated to massive basaltic lithic volcanoclastic sst/sslt. Intense act-diop-tourm altered. Minor magnesite?? Veining. Late pyrite veins (0.1%). Brecciated and veined. |
| Pontiac | P003 | 112.7 | 141.7 | Ccc | GWAC | Ph | B3 | 0.00 | Ir | Bd | 60 | Massive, graded bedded, feld-qtz?- Lithic greywacke. Pervasive phlog-bio altered. Late act veining. Broken and brecciated. Facing down hole. |
| Pontiac | P003 | 141.7 | 144.1 | Cba | VBLM | AcSi | G3 | 0.00 | Ft | | | Intense act-si altered mafic volcanoclastic?? Brecciated with act veins and silicified domains. |
| Pontiac | P003 | 144.1 | 144.3 | | FALT | | | | | | | Puggy fault breccia. |
| Pontiac | P003 | 144.3 | 161 | Ccc | GWAC | SeSi | A2 | 0.00 | Ir | | | Disrupted, faulted and brecciated feld-qtz-lithic greywacke and siltstone. Bleached and silicified with vughy breccia zones. Late act veins. |
| Pontiac | P003 | 161 | 168.7 | Cba | LBA | AcSi | G3 | 0.50 | Ir | | | Basaltic peperitic dyke?? Intense actinolite alteration. Minor late act veins. Brecciated. |
| Pontiac | P003 | 168.7 | 203.4 | Ccc | GWAC | Ph | B3 | 0.00 | Ir | | | Massive, graded bedded, feld-qtz?- Lithic greywacke. Pervasive phlog-bio altered. Late act veining. Patches of domainal sil-act alt? |
| Pontiac | P003 | 203.4 | 212.7 | Cba | VBLM | AcSi | G3 | 0.50 | Ft | | | Intense act-si altered mafic volcanoclastic?? Brecciated with act veins and silicified domains. Minor pyrrhotite veins and dissem. |
| Pontiac | P003 | 212.7 | 215.2 | Ccc | GWAC | Ph | B3 | 0.00 | Ft | | | Massive, graded bedded, feld-qtz?- Lithic greywacke. Pervasive phlog-bio altered. Late act veining. Patches of domainal sil-act alt? |
| Pontiac | P003 | 215.2 | 218.1 | Cba | VBLM | AcSi | G3 | 0.50 | Ft | | | Intense act-si altered mafic volcanoclastic?? Brecciated with act veins and silicified domains. Minor pyrrhotite veins and dissem. |
| Pontiac | P003 | 218.1 | 223 | Ccc | GWAC | Ph | B3 | 0.00 | Ft | | | Massive, graded bedded, feld-qtz?- Lithic greywacke. Pervasive phlog-bio altered. Late act veining. Patches of domainal sil-act alt? |
| Pontiac | P003 | 223 | 225.2 | Ccc | SKRN | SiTo | G3 | 0.20 | Sp | | | Intensely altered volcanoclastics. Silica-Act-Tour-carb veins. Late mag-Po veins. |

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| Pontiac | P003 | 225.2 | 233 | Ccc | GWAC | PhBi | B2 | 0.20 | | | | Massive, graded qtz-feld-lithic greywacke. Pervasive phlog-bio alt. Late act and carb-po veins. |

Stratigraphy

| | |
|-------|---|
| Q | Quaternary alluvial, colluvial and dune deposits |
| Df | Devonian fine grained qtz sst and sst (Florence Quartzite). Fossiliferous |
| Dsk | Devonian Skarn |
| Dg | Devonian Granite |
| Sc | Silurian sandstone and siltstone |
| Sc | Silurian pebble-cobble conglomerate. |
| Su | Silurian sediments |
| Og | Limestone (Gordon Limestone) |
| Oc | Pebble conglomerate, PC derivation (Owen Gp). |
| Os | Siliceous sst and conglomerate. |
| Ccc | Contiguous Creek Fm |
| Cch | Contiguous Creek Fm chert |
| Ccarb | Contiguous Creek Fm carbonate and calcareous sediments. |
| Cba | Cambrian Basalt (Mclvor Hill Complex) |
| Cbg | Cambrian gabbro |
| Cba | Cambrian basaltic volcanics |
| Csu | Cambrian ultramafic |
| Cud | Cambrian ultramafic dunite |
| Cup | Cambrian ultramafic orthopyroxenite |

Rock Types

Volcanic Rocktypes have a four letter code. The first letter is the style (intrusive, volcanoclastic etc)
The second is the chemical composition (basaltic, rhyolitic), the third is the major component (qtz phyr, lithic rich etc)
the last is the texture (fine grained, breccia etc). For example IUPC is an intrusive, ultramafic, pyroxene phyr and coarse grained.

Style codes

| | |
|---|----------------|
| I | Intrusive |
| L | Lava |
| V | Volcanoclastic |

E Epiclastic

Composition codes

U Ultramafic
B Basaltic (mafic)
A Andesitic
D Dacitic
R Rhyolitic

Composition Codes

Q Qtz phyric (qtz xtal rich)
F feldspar phyric
H Hornblende phyric
P Pyroxene phyric
L Lithic rich
X crystal rich
V Vitric

Texture codes

F fine
M medium
C coarse
B breccia

Other Rock codes

CHRT Chert
CARB Carbonate
GWAC Greywacke
SSLT Siltstone
SAND Sandstone
SERP Serpentinite
CONG Conglomerate
GRAN Granite
GRAD Granodiorite
SKRN Skarn
LOSS No Core recovery

| | |
|------|---------------------------|
| CLAY | Clay |
| MMAG | Massive magnetite |
| SKSP | Serpentinite Skarn |
| SHAL | Shale |
| HEVC | Heamatitic Volcaniclastic |
| PHLG | Plogopite schist |

Colour

Colours can be classified by shade using a 1 to 5 scale. ie. B1 = pale brown, B5=dark Brown

| | |
|---|--------|
| N | Black |
| B | Brown |
| P | Purple |
| G | Green |
| C | Cream |
| W | White |
| Y | Yellow |
| T | Tan |
| R | Red |
| O | Orange |

Alteration

| | |
|----|------------------------|
| Ac | Actinolite |
| Ch | Chlorite |
| Se | Sericite |
| Cb | Carbonate |
| Di | Diopside |
| Ax | Axinite |
| Sc | Serpentine-chrysotilic |
| Sp | Serpentine |
| So | Schorl |
| Ph | Phlogopite |
| Sx | Sulphidic |

| | |
|----|-------------|
| Py | Pyritic |
| Po | Pyrrhotitic |
| Ht | Haematitic |
| Mg | Magnetite |
| To | Tourmaline |
| Si | Silica |
| Qz | Quartz |

Geotech

| Intact Rock Strength | Code | UCS |
|----------------------|------|----------|
| Extremely weak | EW | 0.5 Mpa |
| Very Weak | VW | |
| Weak | W | 2.5 Mpa |
| Moderately strong | MS | 37.5 Mpa |
| Strong | S | 75 Mpa |
| Very strong | VS | 100 Mpa |
| Extremely strong | ES | 150 Mpa |

| Roughness type | Code | Jr |
|-------------------|------|-----|
| Stepped Smooth | SS | 3.5 |
| Discontinuous | DC | 4 |
| Planar Smooth | PS | 1 |
| Stepped Rough | SR | 3 |
| Planar rough | PR | 1.5 |
| Undulating Smooth | US | 2 |
| Undulating Rough | UR | 3 |

| No of Defect Sets | Code | Jn |
|---------------------|------|----|
| Default | 0 | 1 |
| One Set | 1 | 2 |
| One Set + random | 1.5 | 3 |
| Two Sets | 2 | 4 |
| Two Sets + random | 2.5 | 6 |
| Three Sets | 3 | 9 |
| Three Sets + random | 3.5 | 12 |

| | | | |
|-----------|--|---|----|
| Four Sets | | 4 | 15 |
|-----------|--|---|----|

| Joint Alteration | Code | Ja | |
|-------------------------|-------------|-----------|-----|
| Default | | 0 | 1 |
| Carb | CB | | 2 |
| Serpentine | SP | | 5 |
| Clay | CY | | 5 |
| Quartz | QZ | | 1 |
| Sericite | SE | | 3 |
| Chlorite | CH | | 3 |
| Clean | X | | 1 |
| Iron | FE | | 1.5 |
| Haematite | H | | 2 |