LITHOLOGIC LOG

Project: McCoy

Hole: 28-18 864-66

Elevation: _____ Date Drilled: 5/27/81-7/6/82

Location: SW 1/4 SW 1/4 Sec 18 T22N R40E MDBM Method: air/foam and mud

Geologist: Deymonaz Gamma: _____

Depth (m)	Description
124-134	Latite - Brick red, hard, 10% phenocrysts of clear tabular plagioclase (1-4mm). Small magnetite common and rare biotite and hornblende. Groundmass mostly aphanitic with some small feldspar or quartz visible. No fracturing evident in cuttings but minor fractures noted in drilling.
134-137	Crystal Lithic Tuff - Pink, well indurated, 25% phenocrysts of white plagioclase and biotite (1-3mm) with smaller anhedral quartz. Groundmass of argillized ash and lithic fragments. Darker red stains common along fractures and extend several mm from fracture surface.
137-152	Tuff - Light gray to white, moderately well indurated, 5-10% phenocrysts of biotite and plagioclase (0.5-1.0mm). Minor manganese along some small tight fractures. Groundmass of argillized ash and small lithic fragments. Unidentified yellow clay mineral common. Below 137m argillic alteration more intense and phenocrysts decrease to less than 5%. Yellow limonite staining common 143-146m, minor in rest of interval.
152-163	Tuff - Moderate to well indurated, light gray, pervasive limonitic staining and common manganese deposited, argillized plagioclase phenocrysts and minor biotite. Numerous prismatic cavities from dissolved plagioclase.
163-180	Tuff - As above except much less limonite staining and rock appears less fractured. Common plagioclase and minor biotite, phenocrysts. Samples contaminated with fractured interval above. Yellow unidentified clay mineral as in 137-152m interval common around some feldspar crystals.
180-186	Tuff - As above except fractured and pervasive pink to red hematite staining. First water encountered at about 183 meters.
186-216	Tuff - As 163-180 except light to med. gray.
216-253	Lithic Crystal Tuff - Med. gray to brownish gray, 30% small red and black aphitic lithic fragments, 25% crystals of plagioclase, biotite and rare quartz in ash matrix. Poorly to moderately well indurated. Moderate hematite staining and unidentified yellow clay mineral as above.

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253-274	Lithic Crystal Tuff - Similar to above except mostly tuffaceous material with little of red and black lithic material. Common flattened glass shards. Minor limonitic staining. Moderate to well indurated.
274-284	Welded Crystal Lithic Tuff - Light greenish gray, hard. Phenocrysts of plagioclase in welded glassy partly silicified aphanitic matrix. Common small lithic fragments and small angular cavaties filled with soft green clay.
284-299	Crystal Lithic Tuff - Non-welded argillized tuff similar in composition to above interval. Moderately well indurated.
299-302	Lithic Crystal Tuff - Light gray to greenish gray. Poorly indurated, abundant devitrified glass and relic pumice. 5-15% phenocrysts of plagioclase. Matrix and phenocrysts extensively argillized.
302-326	Lithic Crystal Tuff - Medium gray to gray green. Well indurated, composed almost entirely of obsidian, pumice and glass shards in tuffaceous matrix. Glass mostly devitrified but common fresh appearing glass fragments. Some chips have abundant quartz and plagioclase crystals. 320-326 has welded aphanitic matrix with 25% glass and phenocrysts. Highly fractured 314-326.
326-332	Tuff - Light gray, 3-5% small lithic fragments and plagioclase crystals, possibly some quartz (< 0.5mm).
332-343	Welded(?) Crystal Lithic Tuff - Lavender, well indurated tuff with 20-30% crystals of plagioclase (0.5-2.0mm), minor biotite, and common small lithic and pumice fragments. Finely crystalline to aphanitic groundmass.
343-366	Tuff - Green, argillized to clay, abundant (20-40%) angular chert fragments.

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366-409	Chert or Lithic Tuff - Various shades of green and brown, drilled as a soft rock but fine competent cuttings retrieved, may be continuation of 343-366m unit with clay matrix material washed from cuttings. Chert cuttings much finer than in 343-366m interval.
409-428	Shale and Chert - Black, laminated, minor calcite filled fractures. Chert as above 20-50% and decreasing with depth. Some or all of chert may be from sluffing up hole.
428-594	Drilled with no returns - Drilled as: 409-428 with intermittent hard zones.