

EXPLANATION:

SOIL DESCRIPTIONS

Stratigraphic Unit A



Silty and Sandy Clay (CL), Clayey and Sandy Silt (ML), Gravelly Sand (SP), Clayey Sand (SC): brown; coarse grained horizons are dense, poorly sorted-poorly graded, angular to subangular, very fine to coarse quartz and lithic fragments, gravel to 2" diameter, fines 12% to 35%. Fine grained horizons: low to medium plasticity, stiff to hard. Horizons are discontinuous both horizontally and vertically, intermediate contacts gradational. Caliche nodules and root casts are abundant.

Stratigraphic Unit B



Silty Sand (SM), Gravelly Sand (SP), gray to brown, poorly sorted-poorly graded, angular to subangular, very fine to coarse quartz and lithic sand, 12% to $\pm 25\%$ fines and $<10\%$ to $\pm 30\%$ gravel, dry, loose, non to slightly calcareous, locally cross-bedded.

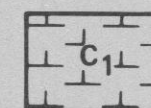


Silty Clay-Clayey Silt (CL-ML), Sandy Silt (ML), brown, $<10\%$ to $\pm 40\%$ sand, low to medium plasticity, very stiff to hard, slightly to highly calcareous; lenses of silty sand, caliche nodules.

Stratigraphic Unit C



Silty and Sandy Clay (CL), Clayey Silt (ML), Clayey Sand (SC), brown to reddish brown, medium plasticity, very stiff, locally calcareous; 12-30 percent fine sand.



Caliche; white, dense, hard, discontinuous. Not exposed in Unit 2.

Stratigraphic Unit D



Clayey Sand (SC), Silty Sand (SM), Sand and Gravelly Sand (SP-GP), Silts and Clays (ML and CL): brown to red; coarse grained horizons dense, poorly sorted; angular to subangular, very fine to coarse quartz and lithic fragments; cobbles to 10" diameter, fines approximately 12-35%. Fine grained horizons: low to medium plasticity, stiff to hard, thinly interbedded. Horizons discontinuous horizontally and vertically. Locally crossbedded.



Silty Clay (CL), Clayey Silt (ML); brown, low to medium plasticity, dry to moist, stiff to very stiff.

Stratigraphic Unit E

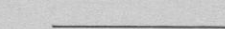


Silty Clay and Clayey Silt; (CL and ML), dark reddish brown, $<10\%$ sand, medium to high plasticity, very stiff to hard, non to moderately calcareous, occasional caliche nodules, root casts, dark mineral staining.



Clayey Sand (SC), Clayey Sandy Silt (ML): brown to dark reddish brown, low plasticity, moist, stiff to very stiff, non to slightly calcareous; fine quartz and mica sand 15-50%; discontinuous stringers of silty clay.

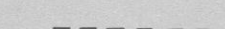
GEOLOGIC CONTACTS



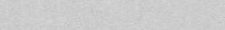
SOLID; located within 1 inch



LONG DASH; located within 3 inches



SHORT DASH; located within 3-6 inches

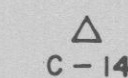


HACHURED; located as gradational across 6-12 inches



CONTACT CONCEALED BY FILL

SYMBOLS



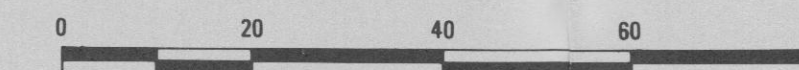
GEOLOGIC SURVEY CONTROL POINT,
Referenced to Arizona State Plane Coordinates



GEOLOGIC MAP AREA; defined by control points




SCALE: 1 inch = 20 feet



Contour Interval 2 feet

Topography by photogrammetric methods from aerial photography; base map supplied by Bechtel Corporation and modified by Fugro, Inc.



Arizona Nuclear Power Project
Palo Verde Nuclear Generating Station
Units 1, 2 & 3

AS GRADED GEOLOGIC MAP
UNIT 1 CATEGORY 1 EXCAVATION
(Sheet 1 of 7)
Figure 2Z-1

September 1, 1978

Amendment 18