



**0 to 360 ft WELL-GRADED SAND with silt and gravel (SW-SM)**

Thinly bedded SW-SM layers 5 to 25 ft predominate. Several thin lenses of well-graded gravel with silt and sand (GW-GM) less than 5 ft thick are also present in the interval. Gravel clasts are volcanic in origin and subangular to subrounded with rare rounded clasts. Sediment color is predominantly light to moderate brown (5YR 5/4). Moderate cementation is present from 0 to 22.5 ft and locally weak cementation is present 22.5 to 105 ft. Sediments displayed strong reaction to 10% HCl from 0 to 22.5 ft and locally weak to strong reaction to 105 ft. All samples were dry.

**360 to 1110 ft SILTY SAND with gravel (SM)\***

SM layers with gravel generally less than 80 ft thick predominate. Several layers of well-graded sand with silt and gravel (SW-SM) layers less than 10 ft thick are also present above 705 ft. Plasticity of fines in SM layers ranges from non-plastic to moderately plastic. Gravel clasts are volcanic in origin and subrounded to subangular. Sediment color ranges from moderate yellowish brown (10YR 5/4) to light brown (5YR 5/6) to moderate brown (5YR 5/4). Weak cementation is present from 690 to 750 ft, and moderate to strong cementation is present from 750 to 1110 ft. A weak reaction to 10% HCl was observed from 755 to 880 ft and a strong reaction from 880 to 1110 ft. Samples were dry to 452 ft, moist from 452 to 485 ft, and wet from 485 to 705 ft, moist from 705 to 790 ft, and wet from 790 to 1110 ft.

\*USCS texture classification between 705 and 1110 ft is based on drill cuttings particle size distribution measurements from this borehole between 360 and 705 ft and on similar measurements on core samples from 7 core runs between 391 and 743 ft in NC-EWDP-22PA.

**1110 to 1200 ft (T.D.) VOLCANIC CONGLOMERATE**

Clasts range in color from moderate brown (5YR 4/4) to moderate yellowish brown (10YR 3/4) to dark yellowish brown (10YR 4/2). Clasts are well sorted, rounded to subrounded, and composed of welded ashflow tuff lithologies. The matrix is dark yellowish orange (10YR 6/6) clayey fine sand. HCl reaction is weak to moderately strong throughout the interval.

Nye County, Nevada Nuclear Waste Repository Project Office	
Early Warning Drilling Program Summary Lithology Log NC-EWDP-22SA	
Date: 12/18/02	Geologist: JSW
Scale: Not to scale	Drawn by: RFD