NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

Borehole ID: NC-GWE-GF-4PA Drill Depth From: 0.0 to 151 ft Page: 1 of 2

Driller: Ray Wilson Start Date/Time: 1/10/11 at 0900 End Date/Time: 1/10/11 at 1730

Drilling Equip./Method: IR TH-60/Conventional Air-Foam Sampling Equip. Method: Cyclone Collector

DEPTH (FEET)	Drilling Time (min/5 ft)	DESCRIPTION OF LITHOLOGY-PETROLOGY	GRAPHIC LOG	LITHOLOGIC UNIT	NOTES
10	15	0-16 ft Silt with Sand (ML): moderate yellowish-brown (10YR 5/4), 85% silt, 12% fine to medium sand. Contains 3-5% gravel up to ½ inch. Gravels are subrounded to subangular. Origin of gravel is dolomite. No cementation is observed. Material reacts strongly to 10% HCl. Material is loose and dry.		Qal	
	8				
	7				
20	2	16-151 ft (T.D.) Fat Clay with Gravel (CH): pale olive (5Y 6/3) contains 88% clay, 10% caliche fragments, 1-5% gravel clasts, clay is hard and has high plasticity, possibly bentonitic. Caliche may occur as thin layers. Gravels are composed of equal amounts of dolomite and quartzite. No cement observed. Reacts strongly to 10% HCl. Samples are wet due to injection of drilling fluids.			15.57 ft surface casing. Start foam injection at 16 ft.
	4				
	2				
30	3	@ 30 ft 5-10% caliche fragments.			
	2				
40	1				
	2				
50	1	@ 50 ft caliche decreases to less that 5%, dolomite clasts increases to ¾”			First water at 47 ft.
	1				
60	4				
	1				
70	1				
	3				
80	4				
	1				
90	2	@ 90 ft 10% caliche. Dolomite clasts increase to 10%, up to ¾” in size. 5% quartzite up to 3/8”.			
	1				100 to 120 ft no recovery.

PREPARED BY: Bob Wilcoxon/Jim Foster DATE: 1/10/2011 CHECKED BY: Bob Wilcoxon DATE: 2/6/2011

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG — CONTINUATION

Borehole ID: NC-GWE-GF-4PA Drill Depth From: 0.00’ to 151’ Page: 2 of 2

DEPTH (FEET)	Drilling Time (min/5 ft)	DESCRIPTION OF LITHOLOGY-PETROLOGY	GRAPHIC LOG	LITHOLOGIC UNIT	NOTES
110	6			Qal.	
	5				
	2				
120	2	@ 120 ft dolomite clasts decrease to 5%, up to ½” in size. Quartzite clasts decreases to 1% up to ¼” in size.			
	1				
	3				
130	2				
	1				
140	4	@ 140 ft presence of 1% dolomite up to 1/8” in size and 1% quartzite up to 1/8” in size. @145 ft dolomite increases to 5% up to ¼” in size. Quartzite increases to 5% up to 1/8” in size.			
	5	151 ft TD.			
150					
0					
0					
0					
0					

PREPARED BY: Bob Wilcoxon/Jim Foster DATE: 1/7/2011 CHECKED BY: Bob Wilcoxon DATE: 2/6/2011