

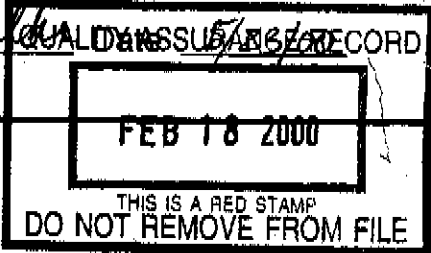
NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

Borehole ID NC-EWDP-4 PB Drill Depth From 0 To 60 (T.D.= 850.0') Page 1 of 14
 Driller BRYAN MORRIS Start Date/Time 1-18-00/1437 End Date/Time 1-23-00/1214
 Drilling Equip./Method AP-1000 Sampling Equip. Method CYCLONE/AIR TOTAL DEPTH = 850'
9.5" CROWD-OUT BIT, 8.5" DWP

DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
	BCS0000 4401 (2 MIN)	SILTY SAND: Some fine ang gravel, fine sand, v. Pale orange (10YR 8/2)			Strong HCl reaction
10	BCS0000 4402 (3 MIN)	SANDY GRAVEL: fine sand, ang-subbrnd fine gravel (10YR 8/2) caliche coated			Strong HCl reaction
15	BCS0000 4403 (2 MIN)	GRAVELLY SAND: fine-coarse subbrnd gravel med sand, Lt brn (5YR 6/4 - 5YR 5/6)			Injected water in drilling Weak HCl reaction
20	BCS0000 4404 (2 MIN)				Strong HCl reaction
25	BCS0000 4405 (1 MIN)	Decreased amount of gravel			Strong HCl reaction
30	BCS0000 4406 (1 MIN)	SAND: fine grained, to coarse sand v. pale orange (aeolian?)			Strong HCl reaction
35	BCS0000 4407 (2 MIN)	Lt brn (5YR 6/4) Increased amount of gravel			Strong HCl reaction
40	BCS0000 4408 (1 MIN)	Decreased amount of gravel, f-med sand.			Moderate HCl react.
45	BCS0000 4409 (2 MIN)	SAND: Some fine-med subbrnd gravel coarse sand, Lt brn 5YR 5/6)			No HCl reaction
50	BCS0000 4410 (2 MIN)				No HCl reaction
55	BCS0000 4411 (2 MIN)	Increased amount of medium sand.			No HCl reaction
60	BCS0000 4412 (2 MIN)	GRAVELLY SAND: fine angular gravel, fine sand. Lt brn (5YR 6/4)			Moderate-weak HCl reaction

Prepared By KEN DONNELSON Date 1-18-00 Checked By Tamie Walcott

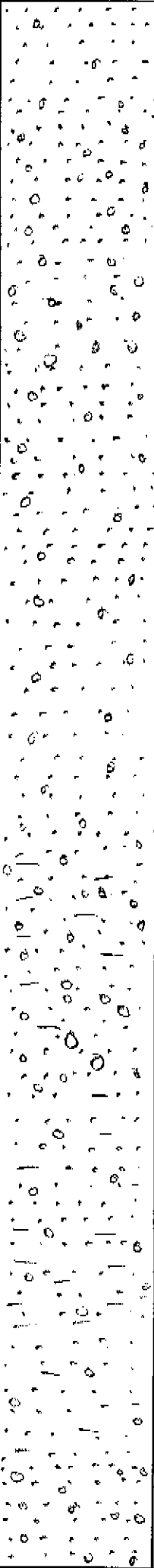


NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

Borehole ID NC-EWDP-4PB Drill Depth From 60 To 125 Page 2 of 14

DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
60	BCS0000 4413	SAND: Tr gravel, med - coarse sand, Lt brn (SYR 5/6)			No HCl reaction
65	(1 MIN) BCS0000 4414	GRAVELLY SAND; fine gravel, fine-medium sand Lt brn (SYR 6/4)			Strong HCl reaction
	(4 MIN) BCS0000 4415	Increased gravel & coarse sand			Moderate HCl reaction
75	(1 MIN) BCS0000 4416	Some coarse gravel			Moderate HCl reaction
80	BCS0000 4417	Decrease in amount of gravel			No HCl reaction
85	(2 MIN) BCS0000 4418				No HCl reaction
90	(3 MIN) BCS0000 4419	Fine-med sand (SYR 5/6)			No HCl reaction
95	(2 MIN) BCS0000 4420	GRAVELLY SAND; f-med submed-subang gravel tr - some silt, f-med sand, Lt brn (SYR 5/6)			No HCl reaction
100	(4 MIN) BCS0000 4421	Increased coarse gravel & cobbles			No HCl reaction
105	(3 MIN) BCS0000 4422	Decreased amount of silt			Strong HCl reaction
110	(3 MIN) BCS0000 4423	SILTY SAND; Tr - some f ang gravel Grayish orange (10YR 7/4)			Strong HCl reaction
115	(2 MIN) BCS0000 4424	Increased coarse sand & decreased amount of silt			No HCl reaction
120	(4 MIN) BCS0000 4425	GRAVELLY SAND: Predom fine submed gravel, coarse sand, Moderate brn (SYR 4/4)			No HCl reaction
125	(2 MIN)				

Prepared By KEN DONNELSON Date 1-18-00 Checked By Jamie Walker Date 5/23/00

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

Borehole ID NC-EWDP-448 Drill Depth From 125 To 190 Page 3 of 14

DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
125	BCS0000 4426				No HCl reaction
130	(5 MIN)				1-18-00, 1649
	BCS0000 4427	Moderate brn (SYR 4/4)			1-19-00, 0722
	(3 MIN)				WEAK HCl reaction
	BCS0000 4428	Increased fine sand & decreased gravel			No HCl reaction
140	(3 MIN)				
	BCS0000 4429	Increased coarse sand & fine gravel			No HCl reaction
145	(2 MIN)				
	BCS0000 4430	GRAVELLY SAND: Trace silt, coarse ang sand, fine subrnd gravel, Mod brn (SYR 4/4)			No HCl reaction
150	(3 MIN)				
	BCS0000 4431	Increased coarse gravel & cobbles			No HCl reaction
155	(3 MIN)				
	BCS0000 4432				No HCl reaction
160	(3 MIN)				
	BCS0000 4433	Decreased amount of gravel & increased fine sand			No HCl reaction
165	(3 MIN)				No HCl reaction
	BCS0000 4434	SANDY GRAVEL: Trace - some silt, predom fine subrnd gravel, coarse sand, Mod brn (SYR 4/4)			No HCl reaction
170	(3 MIN)				
	BCS0000 4435	GRAVELLY SAND: Some silt, predom f subang gravel, fine - med sand, Lt brn (SYR 5/6 conglomeritic(?))			No HCl reaction
175	(3 MIN)				
	BCS0000 4436	SANDY GRAVEL: Some silt, coarse sand, predom coarse subrnd gravel, Mod brn (SYR 4/4)			No HCl reaction
180	(6 MIN)				
	BCS0000 4437	predom fine subrnd gravel			
185	(4 MIN)				No HCl reaction
	BCS0000 4438				
190	(4 MIN)				Mod HCl reaction

Prepared By KEN DONNELSON Date 1-19-00 Checked By Jamie Walker Date 5/23/00

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

Borehole ID NC-EWDP-4PB Drill Depth From 190 To 255 Page 4 of 14

DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
190	BCS0000 4439	SANDY GRAVEL: well graded sand, predom fine subang - submed gravel, some silt, mod brn (SYR 4/4)			No HCl reaction
195	(2 MIN) BCS0000 4440	GRAVELLY SAND: trace - some silt, f-med sand, Predom fine gravel, Lt brn (SYR 5/6) - Mod brn (SYR 4/4)			No HCl reaction
	(5 MIN) BCS0000 4441	SANDY GRAVEL & COBBLES: Coarse sand, subang - submed gravel, Lt brn (SYR 6/4)			No HCl reaction
205	(3 MIN) BCS0000 4442	Muddy, some s			No HCl reaction
210	(5 MIN) BCS0000 4443	Moderate brn (SYR 4/4)			No HCl reaction
215	(3 MIN) BCS0000 4444	CLAYEY SAND & GRAVEL: Predom coarse gravel, fine-med sand, low plasticity, Lt brn (SYR 6/4)			No HCl reaction
220	(3 MIN) BCS0000 4445	GRAVELLY SAND: Trace - some silt, Predom fine subang gravel, coarse sand, Lt brn (SYR 6/4)			STRONG HCl react.
225	(2 MIN) BCS0000 4446	Decreased amount of gravel			No HCl reaction
230	(3 MIN) BCS0000 4447	GRAVELLY SAND: fine ang gravel, fine sand some silt, Lt brn (SYR 6/4)			No HCl reaction
235	(2 MIN) BCS0000 4448	Increased amount of coarse sand Lt brn (SYR 5/6)			No HCl reaction
240	(2 MIN) BCS0000 4449	Increased fine sand & decreased gravel Muddy			No HCl reaction
245	(4 MIN) BCS0000 4450	SANDY GRAVEL: Trace clay, some silt, coarse sand, predom fine ang gravel, Lt brn (SYR 5/6)			Mod HCl reaction
250	(4 MIN) BCS0000 4451	Increased coarse ang gravel			No HCl reaction
255	(3 MIN)				

Prepared By K. DONNELSON Date 1-19-00 Checked By Jamie Walker Date 5/23/00

REV.

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

Drillhole ID NC-EWDP-4PR

Drill Depth From 255

To 320

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DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
255	BCS0000 4452	SANDY GRAVEL: Some silt, trace clay, coarse ang sand, predom fine ang gravel, Lt brn (5YR 5/6)			Strong HCl react.
260	(5 MIN) BCS0000 4453	Increased amount of clay, some cobbles, Lt brn (5YR 6/4) - Mod brn (5YR 4/4)			Strong HCl react
265	(4 MIN) BCS0000 4454	Decreased amount of clay & silt			Mod HCl reaction
270	(4 MIN) BCS0000 4455	Trace of clay			Mod HCl reaction
275	(5 MIN) BCS0000 4456	Trace of clay			Weak HCl reaction
280	(4 MIN) BCS0000 4457	Increased amount of cobbles			Strong HCl reaction
285	(8 MIN) BCS0000 4458				Mod HCl reaction
290	(8 MIN) BCS0000 4459	Trace of clay			Strong HCl reaction
295	(6 MIN) BCS0000 4460	Increased amount of cobbles			Weak HCl reaction
300	(9 MIN) BCS0000 4461				Weak HCl reaction
305	(6 MIN) BCS0000 4462	CLAYEY SAND: Some gravel & cobbles, coarse sand, low plasticity, Lt brn (5YR 6/4)			Weak HCl reaction
310	(6 MIN) BCS0000 4463	CLAYEY GRAVEL & COBBLES: Coarse ang sand, coarse subrnd gravel, silty, low plasticity, Lt brn (5YR 6/4)			Weak HCl reaction
315	(9 MIN) BCS0000 4464	GRAVELLY SAND: Tr: some clay, fine gravel, coarse sand, some cobbles			Weak HCl reaction
320	(4 MIN)				

Prepared By KEN DONNELSON

Date 1-19-00

Checked By Jamie Walker Date 5/23/00

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

Borehole ID NC-EWDP-4PB Drill Depth From 320 To 385 Page 6 of 14

DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
320	BCS0000 4465	CLAYEY SAND: Some fine gravel, coarse ang sand, low plasticity, Lt brn (SYR 6/4)			No HCl reaction
325	(3 MIN)				Weak HCl reaction
327.2	BCS0000 4466	GRAVELLY SAND: fine gravel, some cobbles, coarse ang sand, some silt, Lt brn (SYR 6/4)			⊗ W.L. WITH BIT & HOLE AT 539.32'
330	(3 MIN)				No HCl reaction
330	BCS0000 4467	CLAYEY GRAVEL: Some f-med sand, coarse subrund gravel, med plasticity			* W.L. WITH BIT & HOLE AT 499.26'
335	(7 MIN)	Mod orange pink (SYR 8/4) - Lt brn (SYR 6/4)			Weak HCl reaction
335	BCS0000 4468	SANDY GRAVEL: trace of clay, coarse sand, fine ang gravel, Lt brn (SYR 6/4)			No HCl reaction
340	(3 MIN)				No HCl reaction
340	BCS0000 4469	CLAYEY SAND & GRAVEL: coarse sand, Predom fine gravel, low plasticity			No HCl reaction
345	(4 MIN)	Lt brn (SYR 6/4)			No HCl reaction
345	BCS0000 4470	CLAYEY GRAVEL & COBBLES: coarse sand, Predom coarse subrund gravel, Lt brn (SYR 6/4)			No HCl reaction
350	(5 MIN)				No HCl reaction
350	BCS0000 4471	Decreased amount of cobbles			No HCl reaction
355	(5 MIN)				No HCl reaction
355	BCS0000 4472	SANDY GRAVEL: trace clay, coarse sand, Predom fine subang gravel, Md brn (SYR 4/4)			No HCl reaction
360	(6 MIN)				No HCl reaction
360	BCS0000 4473	CLAYEY SAND & GRAVEL: coarse ang sand, predom fine subang gravel, low plasticity, Lt brn (SYR 6/4 - SYR 5/6)			weak HCl reaction
365	(8 MIN)	Decreased of clay & increased silt			weak HCl reaction
365	BCS0000 4474				weak HCl reaction
370	(6 MIN)				weak HCl reaction
370	BCS0000 4475	GRAVELLY CLAY: coarse ang sand, predom fine subang gravel, low-med plasticity, Lt brn (SYR 6/4 - SYR 5/6) Some cobbles			weak HCl reaction
375	(4 MIN)	Decreased amount of clay			1-19-00 1640
375	BCS0000 4476				1-20-00 0727
380	(6 MIN)				No HCl reaction
380	BCS0000 4477				
385	(4 MIN)				

Prepared By K. DOWNELSON Date 1-20-00 Checked By Jamie Walker Date 5/23/00

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

NC-EWDP-4PB
 Borehole ID _____ Drill Depth From 385 To 450 Page 7 of 19

DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
385	BCS0000 4478	GRAVELLY SAND: Trace of clay, predom fine subbrnd gravel, coarse ang. sand, Moderate brn (SYR 4/4)			No HCl Reaction
390	(4 MIN) BCS0000 4479	CLAYEY GRAVEL: Some sand, predom coarse subbrnd gravel & cobbles, medium plasticity Mod brn (SYR 4/4)			Mod HCl reaction
395	(3 MIN) BCS0000 4480	GRAVELLY CLAY: Some fine sand, fine gravel high plasticity, pale yel brn (10YR 6/2)			No HCl reaction
400	(3 MIN) BCS0000 4481				No HCl reaction
405	(3 MIN) BCS0000 4482				
410	(3 MIN) BCS0000 4483	Decreased gravel			Weak HCl reaction
415	(2 MIN) BCS0000 4484	Increased sand			No HCl reaction
420	(4 MIN) BCS0000 4485	MUDDY			Weak HCl reaction
425	(5 MIN) BCS0000 4486	SANDY CLAY - CLAYEY SAND: Fine sand, med - high plasticity, pale yel brn (10YR 6/2) MUDDY			No HCl reaction
430	(5 MIN) BCS0000 4487	Increased amount of clay			No HCl reaction
435	(3 MIN) BCS0000 4488	Increased amount of sand Lt brn (SYR 6/4 - SYR 5/6)			No HCl reaction
440	(4 MIN) BCS0000 4489				No water yield @ 440'
445	(3 MIN) BCS0000 4490				No HCl reaction
450	(4 MIN)	SANDY CLAY: Fine sand, high plasticity, Pale yel brn (10YR 6/2). Some thin coarse sand layers			No HCl Yielding H ₂ O @ 450'

Prepared By K. DONNELSON Date 1-20-00 Checked By Jamie Walker Date 5/23/00

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

Borehole ID NC-EWDP-4PB Drill Depth From 450 To 515 Page 8 of 14

DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
450	BCS0000 4491	INCREASED SAND			No HCl reaction
455	(3 MIN) BCS0000 4492	CLAY: Some fine sand, high plasticity, Lt brn (SYR 6/4)			WEAK HCl reaction
460	(3 MIN) BCS0000 4493	Increased sand with some Lt gry mottling			No HCl reaction
465	(7 MIN) BCS0000 4494	Increased clay			No HCl reaction
470	(3 MIN) BCS0000 4495	Some calcareous nodules			Strong HCl react.
475	(3 MIN) BCS0000 4496	Increased sand			No HCl reaction
480	(6 MIN) BCS0000 4497	CLAYEY SAND: fine sand, low-med plasticity Pale yel brn (10YR 6/2)			No HCl reaction
485	(2 MIN) BCS0000 4498	CLAYEY SAND: fine sand, med plasticity, indurated, Lt brn (SYR 5/6)			No HCl reaction
490	(2 MIN) BCS0000 4499				No HCl reaction
495	(4 MIN) BCS0000 4500	Increased clay Softer			No HCl reaction
500	(4 MIN) BCS0000 4501	Some gravel			No HCl reaction
505	(4 MIN) BCS0000 4502	GRAVELLY CLAY: Some fine sand, coarse subang gravels (multicolored volcanics), med-high plasticity, Lt brn (SYR 6/4)			No HCl reaction
510	(2 MIN) BCS0000 4503	GRAVELLY SAND: Predom fine subang gravel, coarse ang sand, some cobble, Pale red brn (10R 5/4)			No HCl reaction
515	(5 MIN)				

Prepared By K. DONNELSON Date 1-20-00 Checked By Jamie Walker Date 5/23/00

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

Borehole ID NC-EWDP-

Drill Depth From 515

To

580

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of

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DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
515	BCS0000 4504	Decrease in amount of gravel medium sand			No HCl reaction
520	(2 MIN) BCS0000 4505	SANDY GRAVEL: Predom coarse sand & fine ang gravel, some coarse gravel Gry red (10R 4/2)			No HCl reaction
525	(3 MIN) BCS0000 4506	SANDY GRAVEL: Some silt, trace clay, ang sand predom fine subnd gravel Lt brn (5YR 6/4)			No HCl reaction
530	(3 MIN) BCS0000 4507	SANDY GRAVEL & COBBLES: Predom fine sand, silty, coarse subnd gravel, trace clay Lt brn (5YR 6/4)			No HCl reaction
535	(6 min) BCS0000 4508	SANDY GRAVEL: Coarse sand, predom fine subnd gravel, Gry red (10R 4/2) some cobbles			No HCl reaction
540	(3 MIN) BCS0000 4509				1-20-00, 1651 1-21-00, 0757
545	(6 MIN) BCS0000 4510	Trace of clay balls			No HCl reaction
550	(4 MIN) BCS0000 4511	Increased sand			No HCl reaction
555	(5 MIN) BCS0000 4512	Increased amount of gravel			No HCl reaction
560	(3 MIN) BCS0000 4513	Increased sand			No HCl reaction
565	(4 MIN) BCS0000 4514	SANDY GRAVEL & COBBLES: Some boulders, silty trace clay, coarse sand, Gryorange (10YR 7/4)			No HCl reaction
570	(10 MIN) BCS0000 4515	Increased fine sand			No HCl reaction
575	(6 MIN) BCS0000 4516	SANDY GRAVEL: Coarse sand, pred fine subnd gravel, some cobble Gry red (10R 4/2)			No HCl reaction
580	(4 MIN)				

Prepared By

KEN DONNELSON

Date

1-21-00

Checked By

Jamie Walker

Date

5/23/00

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

Borehole ID NC-EWDP-4PB Drill Depth From 580 To 645 Page 10 of 14

DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
580	BCS0000 4517	Sandy Gravel, as from 535'			No HCl reaction
585	(9 MIN) BCS0000 4518				No HCl reaction
590	(5 MIN) BCS0000 4519				No HCl reaction
595	(13) BCS0000 4520	Trace of clay balls			H2O YIELD ≈ 100 GPM
600	(5 MIN) BCS0000 4521	Increased amount of Lt brn (SYR 6/4-5/6) sandy clay lenses.			No HCl reaction
605	(3 MIN) BCS0000 4522	SANDY SILTSTONE WITH CLAY: Some gravels incorporated Lt brn (SYR 5/6). Some calcite veinlets.			Mod HCl reaction
610	(5 MIN) BCS0000 4523	SANDY CLAY: fine sand, tr some gravel med-high plasticity, Lt brn (SYR 6/4) indurated			Mod HCl reaction
615	(4 MIN) BCS0000 4524	Increased sand & gravel			No HCl reaction
620	(4 MIN) BCS0000 4525	SANDY GRAVEL: Coarse sand, predom fine gravel, some cobbles, some layers of Lt gray, strongly calcareous, hard conglomeritic layers with coarse ang sand.			Mod HCl reaction
625	(7 MIN) BCS0000 4526	Gry. rd (10R 4/2) CONGLOMERATE: Coarse ang sand & fine submed gravel, strong calcareous matrix, hard, very Lt gry (N-8) - Lt brn gry (SYR 6/1)			Mod HCl reaction
630	(19 MIN) BCS0000 4527	Increased gravel & cobbles Lt brn (SYR 6/4-5/6)			No HCl reaction
635	(8 MIN) BCS0000 4528	CLAYEY SAND: fine sand, some gravel, indurated Lt brn (SYR 6/4-5/6)			Mod HCl reaction
640	(5 MIN) BCS0000 4529	SANDY GRAVEL: Coarse ang sand, predom fine submed gravel, Gry red (10R 4/2)			No HCl reaction
645	(6 MIN)				

Prepared By KEN DONNELSON Date 1-21-00 Checked By Jamie Walker Date 5/23/00

REV.

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

Borehole ID NC-EWDP-4PB Drill Depth From 645 To 710 Page 11 of 14

DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
645	BCS0000 4530	Sandy Gravel			No HCl reaction
650	(5 MIN) BCS0000 4531	CLAYEY SAND: fine sand, some fine gravel indurated, Lt brn (SYR 6/4 - 5/6)			Strong HCl reaction
655	(4 MIN) BCS0000 4532	SILTY CLAY: Some fine sand, trace fine gravel, med-high plasticity Lt brn (SYR 6/4)			No HCl reaction
660	(6 MIN) BCS0000 4579				No HCl reaction
665	(3 MIN) BCS0000 4580				No HCl reaction
670	(6 MIN) BCS0000 4533				1-21-00, 1653 1-22-00, 0739
675	(4 MIN) BCS0000 4534	Increased fine sand			No HCl reaction
680	(4 MIN) BCS0000 4535				No HCl reaction
685	(3 MIN) BCS0000 4536	some calcareous nodules & cemented sand Decreased amount of sand			Mod. HCl reaction
690	(4 MIN) BCS0000 4537	Decreased amount of silt High plasticity			No HCl reaction
695	(4 MIN) BCS0000 4538				No HCl reaction
700	(5 MIN) BCS0000 4539	Increased sand			No HCl reaction
705	(5 MIN) BCS0000 4540				No HCl reaction
710	(4 MIN)	Increased sand			No HCl reaction

Prepared By KEN DONNELSON Date 1-22-00 Checked By Jamie Walker Date 5/23/00

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

Borehole ID NC-EWDP-4PB Drill Depth From 710 To 775 Page 12 of 14

DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
710	BCS0000 4541	Some very lt gray mottling (N8)			No HCl reaction
715	(4 MIN)				
715	BCS0000 4542	Increased sand			No HCl reaction
720	(6 MIN)	MUDDY			
720	BCS0000 4543	Decreased sand			No HCl reaction
725	(5 MIN)				
725	BCS0000 4544	Increased sand			No HCl reaction
730	(3 MIN)				
730	BCS0000 4545	SILTY SAND: Some clay, v. fine sand, low plasticity, Lt brn (5YR 6/4) gradational contact. Indurated			No HCl reaction
735	(5 MIN)				
735	BCS0000 4546	Increased clay			No HCl reaction
740	(5 MIN)				
740	BCS0000 4547	Decreased clay			No HCl reaction
745	(4 MIN)				
745	BCS0000 4548				No HCl reaction
750	(4 MIN)				
750	BCS0000 4549	Lt brn (5YR 6/4) - Mod brn (5YR 4/4)			No HCl reaction
755	(3 MIN)				
755	BCS0000 4550	GRAVELLY SAND: Silty, fine ang sand, trace clay, fine ang gravel Lt brn (5YR 5/6)			No HCl reaction
760	(4 MIN)				
760	BCS0000 4551	Decrease in gravel, medium grained sand, indurated			Mod HCl reaction
765	(6 MIN)	Muddy			
765	BCS0000 4552	SANDY GRAVEL: Predom coarse ang gravel, some cobbles, predom fine gravel, quartzite & limestone w/ jasper gravels & other lithologies, multicolored			No HCl reaction
770	(6 MIN)				
770	BCS0000 4553	GRAVELLY SAND: Predom fine ang gravel indurated, fine-med sand, pale yel brn (10YR 6/2)			Mod HCl reaction
775	(5 MIN)				

Prepared By KEN DONNELSON Date 1-22-00 Checked By Jamie Walker Date 5/23/00

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

Borehole ID NC-EWDP-4PB Drill Depth From 775 To 840 Page 13 of 14

DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
775	BCS0000 4554	Increased gravel & cobbles, trace of lt brn clay balls. Quartzitic gravel & cobbles			No HCl reaction
780	(13 MIN) BCS0000 4555	SANDY GRAVEL & COBBLES: Predom fine ang gravel, coarse sand, multi-colored			WATER YIELD
785	(8 MIN) BCS0000 4556	GRAVELLY SAND: Predom fine ang gravel, med sand, indurated, some coarse gravel, pale yel brn (10YR 6/2). Very fine ang clear quartz xtls in a v. lt gray calc matrix			No HCl reaction
790	(16 MIN) BCS0000 4557	CONGLOMERATE(?): Fine sand matrix (calcareous), fine ang gravel, hard, pale yel brn (10YR 6/2)			Mod HCl reaction
795	(12 MIN) BCS0000 4558	Less indurated Breaks down into medium grained sand (resembles "beach" sand)			Mod HCl reaction
800	(6 MIN) BCS0000 4559	More indurated			mod HCl reaction
805	(8 MIN) BCS0000 4560	SAND: some fine gravel, coarse angular sand, pale yel brn (10YR 6/2)			No HCl reaction
810	(6 MIN) BCS0000 4561	medium sand, indurated, trace gravel			1-22-00, 1645
815	(11 MIN) BCS0000 4562	Less indurated			1-23-00, 0804 Weak HCl reaction
820	(5 MIN) BCS0000 4563	more indurated			No HCl reaction
825	(13 MIN) BCS0000 4564				No HCl reaction
830	(6 MIN) BCS0000 4565	Trace - some v.f.g., v. lt gray silty sand layers.			No HCl reaction
835	(10 MIN) BCS0000 4566	Trace - some v.f.g. silty sand & sandy silt layers. Clasts of v. lt gray (NB) hard vitric, non-welded tuff.			No HCl reaction
840	(13 MIN)				


Prepared By KEN DONNELSON Date 1-23-00 Checked By Jamie Walker Date 5/23/00

NYE COUNTY NUCLEAR WASTE REPOSITORY PROJECT OFFICE

CUTTINGS SAMPLE LOG

CONTINUATION

Borehole ID NC-EWDP-4PB Drill Depth From 840 To 900 Page 14 of 14

DEPTH (Feet)	Top/Bottom of Cuttings Sample Interval	Description of Lithology - Petrology	GRAPHIC LOG	LITHOLOGIC UNIT	Notes
840	BCS0000 4567	Increased induration			Weak HCl reaction
845	(29 MIN) BCS0000 4568				
850	(8 MIN)				YIELD ≈ 500 GPM 1-23-00, 1214
					TOTAL DEPTH

Prepared By KENDON NELSON Date 1-23-00 Checked By Jamie Walker Date 5/23/00