Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-22PA** (Phase 3) Driller/Drilling Company: Alton Schoonmaker/THF Drilling Method: Casing Advance Alluvium Depth (ft bgs): 0 to 780 Start Date: 1/15/2002 End Date: 2/5/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
1/15/2002	JSW	1/27/2002	HJA	BCS00009651-22PA-1515	0.00	2.50	0.0	0.8	0.0	5.5	10.0				10YR 6/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009652-22PA-1516	2.50	5.00	0.0	0.8	0.0	6.0	10.0				10YR 6/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009653-22PA-1517	5.00	7.50	0.0	0.8	0.0	10.0	10.0				5YR 6/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009654-22PA-1518	7.50	10.00	0.0	1.2	0.0	13.0	10.0				5YR 6/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009655-22PA-1519	10.00	12.50	0.0	1.2	0.0	7.0	10.0				5YR 6/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009656-22PA-1520	12.50	15.00	0.0	1.2	0.0	15.0	10.0				5YR 6/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009657-22PA-1521	15.00	17.50	0.0	1.3	0.0	12.0	10.0				5YR 6/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009658-22PA-1522	17.50	20.00	0.0	1.3	0.0	5.0	10.0				5YR 6/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009659-22PA-1523	20.00	22.50	0.0	2.5	0.0	5.0	10.0				10YR 6/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009660-22PA-1524	22.50	25.00	0.0	2.5	0.0	22.0	10.0				5YR 6/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009661-22PA-1525	25.00	27.50	0.0	2.5	0.0	5.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009662-22PA-1526	27.50	30.00	0.0	3.3	0.0	4.5	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009663-22PA-1527	30.00	32.50	0.0	3.3	0.0	2.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009664-22PA-1528	32.50	35.00	0.0	3.3	0.0	10.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009665-22PA-1529	35.00	37.50	0.0	3.3	0.0	8.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009666-22PA-1530	37.50	40.00	0.0	3.3	0.0	2.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009667-22PA-1531	40.00	42.50	0.0	3.3	0.0	3.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009668-22PA-1532	42.50	45.00	0.0	3.3	0.0	4.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009669-22PA-1533	45.00	47.50	0.0	3.3	0.0	4.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009670-22PA-1534	47.50	50.00	0.0	3.3	0.0	10.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	2/27/2002	HJA	BCS00009671-22PA-1535	50.00	52.50	0.0	3.3	0.0	5.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	2/27/2002	HJA	BCS00009672-22PA-1536	52.50	55.00	0.0	3.3	0.0	8.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	2/27/2002	HJA	BCS00009673-22PA-1537	55.00	57.50	0.0	3.3	0.0	10.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	2/27/2002	HJA	BCS00009674-22PA-1538	57.50	60.00	0.0	2.5	0.0	2.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	2/27/2002	HJA	BCS00009675-22PA-1539	60.00	62.50	0.0	2.5	0.0	2.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	2/27/2002	HJA	BCS00009676-22PA-1540	62.50	65.00	0.0	2.5	0.0	5.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	2/27/2002	HJA	BCS00009677-22PA-1541	65.00	67.50	0.0	2.5	0.0	5.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	2/27/2002	HJA	BCS00009678-22PA-1542	67.50	70.00	0.0	1.1	0.0	8.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	2/27/2002	HJA	BCS00009679-22PA-1543	70.00	72.50	0.0	1.1	0.0	5.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	2/27/2002	HJA	BCS00009680-22PA-1544	72.50	75.00	0.0	1.1	0.0	10.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-22PA** (Phase 3) Driller/Drilling Company: Alton Schoonmaker/THF Drilling Method: Casing Advance Alluvium Depth (ft bgs): 0 to 780 Start Date: 1/15/2002 End Date: 2/5/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
1/15/2002	KDD	1/27/2002	HJA	BCS00009681-22PA-1545	75.00	77.50	0.0	1.1	0.0	10.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009682-22PA-1546	77.50	80.00	0.0	0.9	0.0	8.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009683-22PA-1547	80.00	82.50	0.0	0.9	0.0	7.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009684	82.50	85.00	0.0	0.9	0.0	7.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☐	☑	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009685	85.00	87.50	0.0	0.9	0.0	10.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009686	87.50	90.00	0.0	1.1	0.0	7.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009687	90.00	92.50	0.0	1.1	0.0	7.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009688	92.50	95.00	0.0	1.1	0.0	7.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009689	95.00	97.50	0.0	1.1	0.0	8.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009690	97.50	100.00	0.0	1.1	0.0	8.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009691	100.00	102.50	0.0	1.1	0.0	9.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009692	102.50	105.00	0.0	1.1	0.0	8.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009693	105.00	107.50	0.0	1.1	0.0	8.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009694	107.50	110.00	0.0	0.5	0.0	7.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009695	110.00	112.50	0.0	0.5	0.0	8.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009696	112.50	115.00	0.0	0.5	0.0	11.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009697	115.00	117.50	0.0	0.5	0.0	9.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☐	☑	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009698	117.50	120.00	0.0	0.6	0.0	7.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009699	120.00	122.50	0.0	0.6	0.0	6.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009700	122.50	125.00	0.0	0.6	0.0	8.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009701	125.00	127.50	0.0	0.6	0.0	5.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009702	127.50	130.00	0.0	0.8	0.0	9.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009703	130.00	132.50	0.0	0.8	0.0	8.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009704	132.50	135.00	0.0	0.8	0.0	8.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009705	135.00	137.50	0.0	0.8	0.0	9.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009706	137.50	140.00	0.0	0.7	0.0	6.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009707	140.00	142.50	0.0	0.7	0.0	6.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009708	142.50	145.00	0.0	0.7	0.0	6.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009709	145.00	147.50	0.0	0.7	0.0	10.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	1/27/2002	HJA	BCS00009710	147.50	150.00	0.0	0.6	0.0	11.0	10.0				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-22PA** (Phase 3) Driller/Drilling Company: Alton Schoonmaker/THF Drilling Method: Casing Advance Alluvium Depth (ft bgs): 0 to 780 Start Date: 1/15/2002 End Date: 2/5/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
1/15/2002	KDD	2/27/2002	HJA	BCS00009711	150.00	152.50	0.0	0.6	0.0	9.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	2/27/2002	HJA	BCS00009712	152.50	155.00	0.0	0.6	0.0	10.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	KDD	2/27/2002	HJA	BCS00009713	155.00	157.50	0.0	0.6	0.0	8.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009714	157.50	160.00	0.0	1.0	0.0	9.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009715	160.00	162.50	0.0	1.0	0.0	10.0	10.0				5YR 5/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009716	162.50	165.00	0.0	1.0	0.0	9.0	10.0				5YR 5/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009717	165.00	167.50	0.0	1.0	0.0	9.0	10.0				5YR 5/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009718	167.50	170.00	0.0	1.1	0.0	2.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009719	170.00	172.50	0.0	1.1	0.0	4.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	2/27/2002	HJA	BCS00009720	172.50	175.00	0.0	1.1	0.0	3.0	10.0				5YR 5/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009721	175.00	177.50	0.0	1.1	0.0	5.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009722	177.50	180.00	0.0	0.8	0.0	2.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009723	180.00	182.50	0.0	0.8	0.0	7.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009724	182.50	185.00	0.0	0.8	0.0	3.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009725	185.00	187.50	0.0	0.8	0.0	2.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009726	187.50	190.00	0.0	0.8	0.0	5.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009727	190.00	192.50	0.0	0.8	0.0	4.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009728	192.50	195.00	0.0	0.8	0.0	9.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009729	195.00	197.50	0.0	0.8	0.0	5.0	10.0				5YR 5/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009730	197.50	200.00	0.0	0.7	0.0	1.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009731	200.00	202.50	0.0	0.7	0.0	2.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009732	202.50	205.00	0.0	0.7	0.0	5.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009733	205.00	207.50	0.0	0.7	0.0	9.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009734	207.50	210.00	0.0	0.9	0.0	2.0	10.0				5YR 5/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009735	210.00	212.50	0.0	0.9	0.0	7.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009736	212.50	215.00	0.0	0.9	0.0	4.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009737	215.00	217.50	0.0	0.9	0.0	5.0	10.0				5YR 5/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009738	217.50	220.00	0.0	0.4	0.0	7.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009739	220.00	222.50	0.0	0.4	0.0	3.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/15/2002	JSW	1/27/2002	HJA	BCS00009740	222.50	225.00	0.0	0.4	0.0	9.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-22PA** (Phase 3) Driller/Drilling Company: Alton Schoonmaker/THF Drilling Method: Casing Advance Alluvium Depth (ft bgs): 0 to 780 Start Date: 1/15/2002 End Date: 2/5/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs)		Drilling Data					Sample Density Measurements			Munsell Color Symbol	Moisture Content			Particle Size Distribution (%)					Grading		Estimated Plasticity				USCS Group Symbol	Gravel/Sand GrainShape				Cementation				HCL Reaction			Major Rock Type (%)		
					From	To	Liquid Drilling Fluid Injection Rate (gpm)	Drilling Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)		Dry	Moist	Wet	Gravel	Sand	Silt	Clay	Fines (Silt plus Clay)	Well Graded	Poorly Graded	None	Low	Moderate	High		Angular	Subangular	Subrounded	Rounded	None	Weak	Moderate	Strong	None	Weak	Strong	Volcanics	Carbonates	Other
1/16/2002	JSW	2/15/2002	BW	BCS00009741	225.00	227.50	0.0	0.4	0.0	7.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009742	227.50	230.00	0.0	0.5	0.0	8.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009743	230.00	232.50	0.0	0.5	0.0	5.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009744	232.50	235.00	0.0	0.5	0.0	4.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009745	235.00	237.50	0.0	0.5	0.0	12.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009746	237.50	240.00	0.0	0.8	0.0	3.0	10.0				5YR 5/4	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009747	240.00	242.50	0.0	0.8	0.0	1.0	10.0				5YR 5/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009748	242.50	245.00	0.0	0.8	0.0	2.0	10.0				5YR 5/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009749	245.00	247.50	0.0	0.8	0.0	5.0	10.0				5YR 5/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009750	247.50	250.00	0.0	0.7	0.0	3.0	10.0				5YR 5/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009751	250.00	252.50	0.0	0.7	0.0	7.0	10.0				10YR 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009752	252.50	255.00	0.0	0.7	0.0	3.0	10.0				10YR 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009753	255.00	257.50	0.0	0.7	0.0	23.0	10.0				10YR 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009754	257.50	260.00	0.0	1.0	0.0	3.0	10.0				5YR 5/6	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009755	260.00	262.50	0.0	1.0	0.0	2.0	10.0				5YR 5/6	☐	☑	☐						☐	☑	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009756	262.50	265.00	0.0	1.0	0.0	4.0	10.0				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	KDD	2/15/2002	BW	BCS00009757	265.00	267.50	0.0	1.0	0.0	10.0	10.0				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009758	267.50	270.00	0.0	0.6	0.0	7.0	10.0				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009759	270.00	272.50	0.0	0.6	0.0	1.0	10.0				5YR 4/4	☐	☑	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009760	272.50	275.00	0.0	0.6	0.0	2.0	10.0				5YR 4/4	☐	☑	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009761	275.00	277.50	0.0	0.6	0.0	14.0	10.0				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009762	277.50	280.00	0.0	0.5	0.0	2.0	10.0				10YR 4/2	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009763	280.00	282.50	0.0	0.5	0.0	8.0	10.0				10YR 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009764	282.50	285.00	0.0	0.5	0.0	3.0	10.0				10YR 4/2	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009765	285.00	287.50	0.0	0.5	0.0	11.0	10.0				10YR 4/2	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009766	287.50	290.00	0.0	0.6	0.0	4.0	10.0				10YR 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009767	290.00	292.50	0.0	0.6	0.0	2.0	10.0				5YR 4/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009768	292.50	295.00	0.0	0.6	0.0	4.0	10.0				5YR 4/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009769	295.00	297.50	0.0	0.6	0.0	6.0	10.0				5YR 4/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/16/2002	JSW	2/15/2002	BW	BCS00009770	297.50	300.00	0.0	0.5	0.0	2.0	10.0				5YR 4/4	☑	☐	☐						☐	☑	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-22PA** (Phase 3) Driller/Drilling Company: Alton Schoonmaker/THF Drilling Method: Casing Advance Alluvium Depth (ft bgs): 0 to 780 Start Date: 1/15/2002 End Date: 2/5/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs)		Drilling Data					Sample Density Measurements			Munsell Color Symbol	Moisture Content			Particle Size Distribution (%)					Grading		Estimated Plasticity				USCS Group Symbol	Gravel/Sand GrainShape				Cementation				HCL Reaction			Major Rock Type (%)		
					From	To	Liquid Drilling Fluid Injection Rate (gpm)	Drilling Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)		Dry	Moist	Wet	Gravel	Sand	Silt	Clay	Fines (Silt plus Clay)	Well Graded	Poorly Graded	None	Low	Moderate	High		Angular	Subangular	Subrounded	Rounded	None	Weak	Moderate	Strong	None	Weak	Strong	Volcanics	Carbonates	Other
1/17/2002	JSW	2/15/2002	BW	BCS00009771	300.00	302.50	0.0	0.5	0.0	3.0	10.0				5YR 4/4	✓								✓		✓							✓		✓				✓			100		
1/17/2002	JSW	2/15/2002	BW	BCS00009772	302.50	305.00	0.0	0.5	0.0	3.0	10.0				5YR 4/4	✓								✓		✓							✓		✓				✓			100		
1/17/2002	JSW	2/15/2002	BW	BCS00009773	305.00	307.50	0.0	0.5	0.0	3.0	10.0				5YR 5/6	✓									✓	✓							✓		✓				✓			100		
1/17/2002	JSW	2/15/2002	BW	BCS00009774	307.50	310.00	0.0	0.6	0.0	3.0	10.0				5YR 5/6	✓									✓	✓							✓		✓				✓			100		
1/17/2002	JSW	2/15/2002	BW	BCS00009775	310.00	312.50	0.0	0.6	0.0	7.0	10.0				5YR 5/6	✓								✓		✓							✓		✓				✓			100		
1/17/2002	JSW	2/15/2002	BW	BCS00009776	312.50	315.00	0.0	0.6	0.0	5.0	10.0				10YR 4/2	✓									✓	✓							✓		✓				✓			100		
1/17/2002	JSW	2/15/2002	BW	BCS00009777	315.00	317.50	0.0	0.6	0.0	6.0	10.0				10YR 4/2	✓								✓		✓							✓		✓				✓			100		
1/17/2002	JSW	2/15/2002	BW	BCS00009778	317.50	320.00	0.0	0.5	0.0	2.0	10.0				10YR 4/2	✓								✓		✓							✓		✓				✓			100		
1/17/2002	JSW	2/15/2002	BW	BCS00009779	320.00	322.50	0.0	0.5	0.0	3.0	10.0				5YR 4/4	✓									✓	✓							✓		✓				✓			100		
1/17/2002	JSW	2/15/2002	BW	BCS00009780	322.50	325.00	0.0	0.4	0.0	5.0	10.0				5YR 4/4	✓								✓		✓							✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009781	325.00	327.50	0.0	0.3	0.0	4.0	10.0				5YR 4/4	✓								✓		✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009782	327.50	330.00	0.0	0.6	0.0	4.0	10.0				5YR 5/4	✓									✓	✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009783	330.00	332.50	0.0	0.6	0.0	10.0	10.0				5YR 4/4	✓								✓		✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009784	332.50	335.00	0.0	0.6	0.0	4.0	10.0				5YR 4/4	✓									✓	✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009785	335.00	337.50	0.0	0.6	0.0	5.0	10.0				5YR 5/4	✓									✓	✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009786	337.50	340.00	0.0	0.7	0.0	4.0	10.0				5YR 4/4	✓								✓		✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009787	340.00	342.50	0.0	0.7	0.0	5.0	10.0				5YR 4/4	✓								✓		✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009788	342.50	345.00	0.0	0.7	0.0	5.0	10.0				5YR 5/6	✓									✓	✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009789	345.00	347.50	0.0	0.7	0.0	6.0	10.0				5YR 5/6	✓									✓	✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009790	347.50	350.00	0.0	0.4	0.0	5.0	10.0				5YR 5/6	✓									✓	✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009791	350.00	352.50	0.0	0.4	0.0	6.0	10.0				5YR 5/6	✓									✓	✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009792	352.50	355.00	0.0	0.4	0.0	6.0	10.0				5YR 5/6	✓									✓	✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009793	355.00	357.50	0.0	0.4	0.0	8.0	10.0				5YR 5/6	✓									✓	✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009794	357.50	360.00	0.0	0.3	0.0	7.0	7.1				5YR 5/4	✓									✓	✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009795	360.00	362.50	0.0	0.3	0.0	8.0	7.1				5YR 5/4	✓									✓	✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009796	362.50	365.00	0.0	0.3	0.0	6.0	7.1				5YR 5/4	✓									✓	✓						✓		✓				✓			100		
1/17/2002	KDD	2/15/2002	BW	BCS00009797	365.00	367.50	0.0	0.3	0.0	6.0	7.1				5YR 5/6	✓									✓	✓						✓		✓				✓			100		
1/18/2002	JSW	2/15/2002	BW	BCS00009798	367.50	370.00	0.0	0.1	0.0	3.0	7.1				5YR 4/4	✓								✓		✓						✓		✓				✓			100		
1/18/2002	JSW	2/15/2002	BW	BCS00009799	370.00	372.50	0.0	1.2	0.0	2.0	7.1				5YR 4/4	✓								✓		✓						✓		✓				✓			100		
1/18/2002	JSW	2/15/2002	BW	BCS00009800	372.50	375.00	0.0	1.2	0.0	4.0	7.1				5YR 4/4	✓								✓		✓						✓		✓				✓			100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-22PA** (Phase 3) Driller/Drilling Company: Alton Schoonmaker/THF Drilling Method: Casing Advance Alluvium Depth (ft bgs): 0 to 780 Start Date: 1/15/2002 End Date: 2/5/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs)		Drilling Data					Sample Density Measurements			Munsell Color Symbol	Moisture Content			Particle Size Distribution (%)					Gra-ding		Estimated Plasticity				USCS Group Symbol	Gravel/Sand GrainShape				Cementation				HCL Reaction			Major Rock Type (%)		
					From	To	Liquid Drilling Fluid Injection Rate (gpm)	Drilling Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)		Dry	Moist	Wet	Gravel	Sand	Silt	Clay	Fines (Silt plus Clay)	Well Graded	Poorly Graded	None	Low	Moderate	High		Angular	Subangular	Subrounded	Rounded	None	Weak	Moderate	Strong	None	Weak	Strong	Volcanics	Carbonates	Other
1/18/2002	JSW	2/15/2002	BW	BCS00009801	375.00	377.50	0.0	1.2	0.0	4.0	7.1				5YR 3/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	JSW	2/15/2002	BW	BCS00009802	377.50	380.00	0.0	1.2	0.0	4.0	7.1				5YR 3/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	JSW	2/15/2002	BW	BCS00009803	380.00	382.50	0.0	1.2	0.0	6.0	7.1				10YR 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	JSW	2/15/2002	BW	BCS00009804	382.50	385.00	0.0	1.2	0.0	5.0	7.1				10YR 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	JSW	2/15/2002	BW	BCS00009805	385.00	387.50	0.0	1.2	0.0	5.0	7.1				10YR 4/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	JSW	2/15/2002	BW	BCS00009806	387.50	390.00	0.0	1.2	0.0	5.0	7.1				5YR 5/2	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009807	390.00	392.50	0.0	0.7	0.0	3.0	7.1				5YR 5/6	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009808	392.50	395.00	0.0	0.7	0.0	1.5	7.1				5YR 5/6	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009809	395.00	397.50	0.0	0.7	0.0	3.0	7.1				5YR 5/6	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009810	397.50	400.00	0.0	0.7	0.0	3.0	7.1				5YR 5/6	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009811	400.00	402.50	0.0	0.7	0.0	2.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009812	402.50	405.00	0.0	0.7	0.0	4.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009813	405.00	407.50	0.0	0.7	0.0	3.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009814	407.50	410.00	0.0	0.7	0.0	2.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009815	410.00	412.50	0.0	0.7	0.0	3.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009816	412.50	415.00	0.0	0.8	0.0	3.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009817	415.00	417.50	0.0	0.8	0.0	3.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009818	417.50	420.00	0.0	0.8	0.0	4.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009819	420.00	422.50	0.0	0.8	0.0	3.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009820	422.50	425.00	0.0	0.8	0.0	2.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009821	425.00	427.50	0.0	0.8	0.0	2.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009822	427.50	430.00	0.0	0.8	0.0	3.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009823	430.00	432.50	0.0	0.8	0.0	3.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009824	432.50	435.00	0.0	1.0	0.0	2.0	7.1				5YR 5/6	☐	☑	☐						☑	☐	☐	☑	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009825	435.00	437.50	0.0	1.0	0.0	4.0	7.1				5YR 5/6	☐	☑	☐						▒	▒	☐	☐	☑	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009826	437.50	440.00	0.0	1.0	0.0	5.0	7.1				5YR 5/6	☐	☑	☐						▒	▒	☐	☑	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009827	440.00	442.50	0.0	1.0	0.0	3.0	7.1				5YR 5/6	☐	☑	☐						▒	▒	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009828	442.50	445.00	0.0	1.0	0.0	3.0	7.1				5YR 5/6	☐	☑	☐						▒	▒	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009829	445.00	447.50	0.0	1.0	0.0	3.0	7.1				5YR 5/6	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/18/2002	KDD	2/15/2002	BW	BCS00009830	447.50	450.00	0.0	1.0	0.0	3.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-22PA** (Phase 3) Driller/Drilling Company: Alton Schoonmaker/THF Drilling Method: Casing Advance Alluvium Depth (ft bgs): 0 to 780 Start Date: 1/15/2002 End Date: 2/5/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Sand	Silt	Clay	Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Low	Moderate	High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Subangular	Subrounded	Rounded	Cementation: None	Weak	Moderate	Strong	HCL Reaction: None	Weak	Strong	Major Rock Type (%): Volcanics	Carbonates	Other
1/18/2002	KDD	2/15/2002	BW	BCS00009831	450.00	452.50	0.0	1.0	0.0	2.0	7.1				5YR 5/4	☐	☑	☐						☐	☑	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009832	452.50	455.00	0.0	0.8	0.0	5.0	7.1				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009833	455.00	457.50	0.0	0.8	0.0	5.0	7.1				5YR 5/6	☑	☐	☐						▣	▣	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009834	457.50	460.00	0.0	0.8	0.0	6.0	7.1				5YR 5/6	☑	☐	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009835	460.00	462.50	0.0	0.8	0.0	3.0	7.1				5YR 5/6	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009836	462.50	465.00	0.0	0.8	0.0	5.5	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009837	465.00	467.50	0.0	0.8	0.0	8.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009838	467.50	470.00	0.0	0.8	0.0	5.5	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009839	470.00	472.50	0.0	0.8	0.0	6.0	7.1				5YR 5/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009840	472.50	475.00	0.0	0.9	0.0	5.0	7.1				10YR 4/2	☐	☑	☐						▣	▣	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009841	475.00	477.50	0.0	0.9	0.0	7.0	7.1				10YR 4/2	☐	☑	☐						▣	▣	☐	☑	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009842	477.50	480.00	0.0	0.9	0.0	7.0	7.1				10YR 4/2	☐	☑	☐						▣	▣	☐	☑	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009843	480.00	482.50	0.0	0.9	0.0	6.0	7.1				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009844	482.50	485.00	0.0	0.9	0.0	7.0	7.1				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009845	485.00	487.50	0.0	0.9	0.0	7.0	7.1				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009846	487.50	490.00	0.0	0.9	0.0	7.0	7.1				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009847	490.00	492.50	0.0	0.9	0.0	7.0	7.1				5YR 4/4	☐	☑	☐						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
1/23/2002	KDD	2/15/2002	BW	BCS00009848	492.50	495.00	0.0	1.0	0.0	5.0	7.1				5YR 5./4	☐	☐	☑						▣	▣	☐	☐	☑	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009849	495.00	497.50	0.0	0.6	0.0	3.0	7.1				5YR 4/4	☐	☐	☑						☑	☐	☐	☑	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009850	497.50	500.00	0.0	0.6	0.0	1.5	7.1				10YR 4/2	☐	☐	☑						☑	☐	☐	☑	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009851	500.00	502.50	0.0	0.6	0.0		7.1				5YR 5/4	☐	☐	☑						☑	☐	☐	☑	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009852	502.50	505.00	0.0	0.6	0.0		7.1				5YR 5/4	☐	☐	☑						▣	▣	☐	☑	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009853	505.00	507.50	0.0	0.6	0.0		7.1				5YR 4/4	☐	☐	☑						☑	☐	☐	☑	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009854	507.50	510.00	0.0	0.6	0.0		7.1				5YR 5/6	☐	☐	☑						▣	▣	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009855	510.00	512.50	0.0	0.6	9.7		7.1				10YR 6/4	☐	☐	☑						▣	▣	☐	☑	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009856	512.50	515.00	0.0	0.3	0.0		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☑	☐	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009857	515.00	517.50	0.0	0.3	0.0		7.1				5YR 5/6	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009858	517.50	520.00	0.0	0.3	2.4		7.1				5YR 5/6	☐	☐	☑						▣	▣	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009859	520.00	522.50	0.0	0.6	6.4		7.1				5YR 5/6	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009860	522.50	525.00	0.0	0.4	1.1		7.1				5YR 5/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-22PA** (Phase 3) Driller/Drilling Company: Alton Schoonmaker/THF Drilling Method: Casing Advance Alluvium Depth (ft bgs): 0 to 780 Start Date: 1/15/2002 End Date: 2/5/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
2/1/2002	KDD	2/15/2002	BW	BCS00009861	525.00	527.50	0.0	0.4	0.0		7.1				5YR 5/4	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009862	527.50	530.00	0.0	0.4	0.0		7.1				5YR 5/4	☐	☐	☑						■	■	☐	☑	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009863	530.00	532.50	0.0	0.8	6.7		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/1/2002	KDD	2/15/2002	BW	BCS00009864	532.50	535.00	0.0	0.8	2.9		7.1				5YR 3/2	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009865	535.00	537.50	0.0	0.8	5.8		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009866	537.50	540.00	0.0	0.8	6.7		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009867	540.00	542.50	0.0	0.8	3.8		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009868	542.50	545.00	0.0	0.8	3.8		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009869	545.00	547.50	0.0	0.8	4.8		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009870	547.50	550.00	0.0	0.8	4.8		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009871	550.00	552.50	0.0	0.8	5.8		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009872	552.50	555.00	0.0	1.1	6.3		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009873	555.00	557.50	0.0	1.1	1.9		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009874	557.50	560.00	0.0	1.1	5.7		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009875	560.00	562.50	0.0	1.1	6.9		7.1				5YR 4/4	☐	☐	☑						■	■	☐	☐	☑	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009876	562.50	565.00	0.0	1.1	9.5		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009877	565.00	567.50	0.0	1.1	8.8		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009878	567.50	570.00	0.0	1.1	8.8		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009879	570.00	572.50	0.0	1.1	8.8		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009880	572.50	575.00	0.0	0.7	18.7		7.1				5YR 5/2-5/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009881	575.00	577.50	0.0	0.7	18.9		7.1				5YR 5/2-5/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009882	577.50	580.00	0.0	0.7	31.8		7.1				5YR 5/2-5/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009883	580.00	582.50	0.0	0.4	9.2		7.1				5YR 5/2-5/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009884	582.50	585.00	0.0	0.4	7.2		7.1				5YR 5/2-5/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009885	585.00	587.50	0.0	0.4			7.1				5YR 5/2-5/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009886	587.50	590.00	0.0	0.4	6.9		7.1				5YR 5/2-5/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009887	590.00	592.50	0.0	0.4			7.1				5YR 5/2-5/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009888	592.50	595.00	0.0	1.0	14.4		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/4/2002	KDD	2/15/2002	BW	BCS00009889	595.00	600.00	0.0	1.0	25.2		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009890	600.00	605.00	0.0	1.0	24.0		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-22PA** (Phase 3) Driller/Drilling Company: Alton Schoonmaker/THF Drilling Method: Casing Advance Alluvium Depth (ft bgs): 0 to 780 Start Date: 1/15/2002 End Date: 2/5/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs) From	Depth Interval (feet bgs) To	Drilling Data: Liquid Drilling Fluid Injection Rate (gpm)	Drilling Data: Drilling Rate (feet/min)	Drilling Data: Water Production (gpm)	Drilling Data: Sample Recovery (gallons)	Drilling Data: Borehole Diameter (inches)	Sample Density Measurements: Tare Weight (kg)	Sample Density Measurements: Sample Plus Tare Weight (kg)	Sample Density Measurements: Sample Weight (kg)	Munsell Color Symbol	Moisture Content: Dry	Moisture Content: Moist	Moisture Content: Wet	Particle Size Distribution (%): Gravel	Particle Size Distribution (%): Sand	Particle Size Distribution (%): Silt	Particle Size Distribution (%): Clay	Particle Size Distribution (%): Fines (Silt plus Clay)	Grading: Well Graded	Grading: Poorly Graded	Estimated Plasticity: None	Estimated Plasticity: Low	Estimated Plasticity: Moderate	Estimated Plasticity: High	USCS Group Symbol	Gravel/Sand GrainShape: Angular	Gravel/Sand GrainShape: Subangular	Gravel/Sand GrainShape: Subrounded	Gravel/Sand GrainShape: Rounded	Cementation: None	Cementation: Weak	Cementation: Moderate	Cementation: Strong	HCL Reaction: None	HCL Reaction: Weak	HCL Reaction: Strong	Major Rock Type (%): Volcanics	Major Rock Type (%): Carbonates	Major Rock Type (%): Other
2/5/2002	KDD	2/15/2002	BW	BCS00009891	605.00	610.00	0.0	1.0	32.4		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009892	610.00	615.00	0.0	1.0	51.6		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009893	615.00	620.00	0.0	1.0	28.8		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009894	620.00	625.00	0.0	1.0	42.0		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009895	625.00	630.00	0.0	1.0	64.8		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009896	630.00	635.00	0.0	1.0	62.4		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009897	635.00	640.00	0.0	1.4	60.5		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009898	640.00	645.00	0.0	1.4	62.2		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009899	645.00	650.00	0.0	1.4	137.8		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009900	650.00	655.00	0.0	1.4	33.6		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009901	655.00	660.00	0.0	1.4	33.6		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009902	660.00	665.00	0.0	1.4	20.2		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009903	665.00	670.00	0.0	1.4	43.7		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009904	670.00	675.00	0.0	1.0	24.0		7.1				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009905	675.00	680.00	0.0	1.0	19.2		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009906	680.00	685.00	0.0	1.0	9.6		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009907	685.00	690.00	0.0	1.0	43.2		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009908	690.00	695.00	0.0	1.3	35.9		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009909	695.00	700.00	0.0	1.3	71.8		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009910	700.00	705.00	0.0	1.3	74.9		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009911	705.00	710.00	0.0	1.3	209.0		7.1				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☑	☐	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009912	710.00	715.00	0.0	0.6	24.5		5.9				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009913	715.00	720.00	0.0	0.6	50.4		5.9				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009914	720.00	725.00	0.0	0.6	61.9		5.9				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009915	725.00	730.00	0.0	0.5	32.3		5.9				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009916	730.00	735.00	0.0	0.5	22.3		5.9				5YR 5/6	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009917	735.00	740.00	0.0	0.5	62.9		5.9				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009918	740.00	745.00	0.0	0.8	60.8		5.9				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009919	745.00	750.00	0.0	0.8	76.7		5.9				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009920	750.00	755.00	0.0	0.8	66.7		5.9				5YR 4/4	☐	☐	☑						■	■	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		

Alluvium Drill Cuttings Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-22PA** (Phase 3) Driller/Drilling Company: Alton Schoonmaker/THF Drilling Method: Casing Advance Alluvium Depth (ft bgs): 0 to 780 Start Date: 1/15/2002 End Date: 2/5/2002

Date Logged	Logged By (Initials)	Date Checked	Checked By (Initials)	Sample Number	Depth Interval (feet bgs)		Drilling Data					Sample Density Measurements			Munsell Color Symbol	Moisture Content			Particle Size Distribution (%)					Gra-ding		Estimated Plasticity				USCS Group Symbol	Gravel/Sand GrainShape				Cementation				HCL Reaction			Major Rock Type (%)		
					From	To	Liquid Drilling Fluid Injection Rate (gpm)	Drilling Rate (feet/min)	Water Production (gpm)	Sample Recovery (gallons)	Borehole Diameter (inches)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)		Dry	Moist	Wet	Gravel	Sand	Silt	Clay	Fines (Silt plus Clay)	Well Graded	Poorly Graded	None	Low	Moderate	High		Angular	Subangular	Subrounded	Rounded	None	Weak	Moderate	Strong	None	Weak	Strong	Volcanics	Carbonates	Other
2/5/2002	KDD	2/15/2002	BW	BCS00009921	755.00	760.00	0.0	0.8	66.7		5.9				5YR 4/4	☐	☐	☑						▒	▒	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009922	760.00	765.00	0.0	1.0	44.4		5.9				5YR 4/4	☐	☐	☑						☑	☐	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009923	765.00	770.00	0.0	1.0	57.6		5.9				5YR 4/4	☐	☐	☑						▒	▒	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009924	770.00	775.00	0.0	1.0	87.6		5.9				5YR 4/4	☐	☐	☑						▒	▒	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		
2/5/2002	KDD	2/15/2002	BW	BCS00009925	775.00	780.00	0.0	1.0	104.4		5.9				5YR 4/4	☐	☐	☑						▒	▒	☑	☐	☐	☐		☐	☐	☑	☐	☐	☑	☐	☐	☑	☐	☐	100		